Mindful Technical Writing

AN INTRODUCTION TO THE FUNDAMENTALS

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Preface

Welcome to *Mindful Technical Writing: An Introduction to the Fundamentals*, an open textbook designed for use in co-requisite course pairings of developmental writing and introductory technical writing, or indeed in other lower-division college writing courses that focus on building study skills alongside effective workplace and academic writing skills. It offers a no-cost alternative to commercial products, combining practical guidance with interactive exercises and thoughtfully designed writing opportunities.

This book's modular design and ample coverage of topics and genres means that it can be used flexibly over semester-long or stretch courses, allowing instructors and students to select the chapters that are most relevant for their needs. By blending new material with reviews of key topics, such as academic integrity, the chapters provide fresh perspectives on matters vital to the development of strong writing skills.

This book was made possible thanks to support from Montana Technological University's Faculty Seed Grant Program and the TRAILS (Treasure State Academic Information and Library Services) Open Educational Resources Program, funded by the Office of the Commission of Higher Education, Montana University System. The authors gratefully acknowledge this assistance, which helped grow an embryonic idea for a textbook into to a fully developed student success effort.

The authors would also like to thank Sarah Raymond, Director of Career Services at Montana Technological University, for her contribution to the "Introducing Technical Writing" chapter of this textbook, as well as the interviewees who provided data for her piece. Ms. Raymond's text illustrates the world-of-work applications of integrity in an engaging and accessible manner and is a true asset to this book.

Unit I: Exploring Technical Writing Fundamentals

Introducing Technical Writing

Selecting an Appropriate Genre

Exploring the Cost of Poor Communication

Using Writing Processes

Introducing Technical Writing

Dawn Atkinson and Sarah Raymond

Chapter Overview

This chapter aims to help you understand what technical writing is, what it is used for, and what characteristics and conventions help to define it.

A Definition of Technical Writing

Although you may not yet be fully familiar with the characteristics of technical writing, you have likely experienced technical writing at one time or another in your daily life as a student, employee, or consumer. *Technical writing*, according to this book's definition, aims to help individuals perform workplace tasks, carry out a series of operations, understand concepts or research, solve problems, operate technology, or communicate in a professional manner. You may have encountered technical writing in textbooks, operations manuals, company policies, or illustrations in magazine articles. To extend our definition of technical writing, textbook author Last (2019, p. 6) explains that this form of non-fiction writing communicates information for practical and specific purposes, takes document design into account, and is usually intended for particular readers.

The Characteristics of Technical Writing

When we employ technical writing, we strive to keep readers in mind and tailor our communication for a particular purpose. The *audience* for a piece of technical writing is the individuals who will read the text. Since technical writing may be used in multimedia documents, such as presentations, videos, and podcasts, an audience might also include listeners, viewers, and users. The *purpose* for a piece of technical writing signifies the reason it has been produced. In general, the purpose for a piece of communication is either to entertain, sell, inform, or persuade; however, documents may also address more than one of these purposes. Technical writing, in comparison, may be produced with more specific purposes in mind, such as to provide or ask for information, record details, or convince readers of something (Last & Neveu, 2019, p. 18). Again, technical documents may also reflect more than one of these purposes.

Seven attributes help to define technical writing and ensure that it adequately addresses audience and purpose. Specifically, technical writing is clear, coherent, concise, concrete, correct, complete, and courteous. The following definitions of these characteristics are adapted from Last (2019, pp. 43-44).

Clear writing communicates a writer's ideas and purpose in a straightforward manner. It targets a particular audience by being precise and moderating technical words, obscure phrases, and *jargon*, specialized language or terminology used in a particular field of study or workplace environment. It also foregrounds important information for the benefit of readers and conveys one main idea per paragraph.

Coherent writing builds links between ideas so readers can easily follow them. One idea should lead logically into the next via use of transitional words and phrases, intentional repetition, sentences with clear subjects, specific and informative titles and headings, parallel lists, and consistent document design. When writing is coherent, readers can easily track thoughts and lines of reasoning; incoherent writing, in comparison, is choppy and hard to follow since its ideas appear to be disconnected or incomplete.

Concise writing is efficient: it delivers its message clearly without using extraneous words that slow readers. To produce concise writing, avoid unnecessary padding in sentences, awkward phrasing, overuse of *be* verbs (*is*, *are*, *was*, *were*, *am*, *be*, *being*, *been*), long preposition strings, vague language (words like *good*, *bad*, and *do*), unnecessary repetition, and redundancy. In addition, use active verbs whenever possible, and take the time to select a single, expressive word rather than using a long or clichéd phrase. Think of your word count like a budget; be frugal by making sure every word you choose works hard to communicate meaning.

Concrete writing uses specific, exact language so readers can easily understand points. If you have to explain an abstract concept, use familiar examples, everyday comparisons, and precise language. In addition, use measurable or specific descriptors whenever possible instead of words that encompass a range of interpretations (e.g., *big*, *little*, *very*, *extremely*, and *great*).

Correct writing uses conventional English punctuation, capitalization, grammar, and sentence structures; provides accurate information that is communicated in an ethical way; and employs the right document type for the task.

Complete writing includes all requested information and answers all relevant questions. Carefully read and follow specifications to ensure your documents are complete.

Courteous writing employs an intuitive design that is easy to scan; uses respectful language; addresses readers appropriately; and avoids potentially offensive terms and tone.

Writing that is clear, coherent, concise, concrete, correct, complete, and courteous establishes credibility with readers, demonstrates dedication and care, and communicates messages convincingly.

The Conventions of Technical Writing

Documents typically follow *conventions*, expectations about key features that affect how they are organized, designed, and written. Conventions help readers recognize and categorize documents into *genres*, or types of writing; conventions also help writers produce texts in line with accepted standards.

Certain conventions typify technical writing as a means for communicating information clearly and effectively to people who need it. Table 1 provides an overview of these conventions.

Table 1. Conventions associated with technical writing (adapted from Last, 2019, p. 16)

Considerations	Conventions
Purpose	Communicates technical and specialized information in a clear, accessible, and useable manner to people who need it to perform workplace tasks, carry out a series of operations, understand concepts, solve problems, operate technology, or communicate in a professional manner
Audience	Addresses various audiences: e.g., employees, managers, executives, clients, the general public, funding bodies, students, and entities with legal authority
Writing Style	Uses concise, clear, plain, and direct language that is formal or moderately formal; may include specialized terminology; typically incorporates short sentences written in the active voice; and makes purpose immediately clear
Tone	Maintains a tone that is courteous, constructive, and professional
Structure	Uses concise paragraphs, clear transitions, and structural cues (e.g., informative headings and titles) to organize and forecast content for readers
Format/Design	Includes electronic, visual, and printed documents of different lengths (e.g., long reports and short emails, letters, and memos); incorporates headings, lists, figures, and tables
Other Features	Focuses on data-driven ideas and evidence

The conventions outlined in Table 1 help make technical writing easy-to-navigate and reader focused.

Activity A: Identify the Audiences for Pieces of Technical Writing

Figure 1 provides an example of technical writing, an extract from the article “Remote Reefs and Seamounts are the Last Refuges for Marine Predators across the Indo-Pacific” (Letessier et al., 2019, “Abstract”). Read the extract.

Since the 1950s, industrial fisheries have expanded globally, as fishing vessels are required to travel further afield for fishing opportunities. Technological advancements and fishery subsidies have granted ever-increasing access to populations of sharks, tunas, billfishes, and other predators. Wilderness refuges, defined here as areas beyond the detectable range of human influence, are therefore increasingly rare. In order to achieve marine resources sustainability, large no-take marine protected areas (MPAs) with pelagic components are being implemented. However, such conservation efforts require knowledge of the critical habitats for predators, both across shallow reefs and the deeper ocean. Here, we fill this gap in knowledge across the Indo-Pacific by using 1,041 midwater baited videos to survey sharks and other pelagic predators such as rainbow runner (*Elagatis bipinnulata*), mahi-mahi (*Coryphaena hippurus*), and black marlin (*Istiompax indica*). We modeled three key predator community attributes: vertebrate species richness, mean maximum body size, and shark abundance as a function of geomorphology, environmental conditions, and human pressures. All attributes were primarily driven by geomorphology (35%−62% variance explained) and environmental conditions (14%−49%). While human pressures had no influence on species richness, both body size and shark abundance responded strongly to distance to human markets (12%−20%). Refuges were identified at more than 1,250 km from human markets for body size and for shark abundance. These refuges were identified as remote and shallow seabed features, such as seamounts, submerged banks, and reefs. Worryingly, [hotspots] of large individuals and of shark abundance are presently under-represented within no-take MPAs that aim to effectively protect marine predators, such as the British Indian Ocean Territory. Population recovery of predators is unlikely to occur without strategic placement and effective enforcement of large no-take MPAs in both coastal and remote locations.

Figure 1. An extract from a scientific journal article

What can you tell about the intended audience for the text?

Read another example of technical writing in Figure 2, a set of instructions for a Creative Commons game adapted from Northwest Vista College Library (n.d., "CC Matching Game Table Instructions").

Creative Commons Matching Game

Introduction

This hands-on activity will help players 1) recognize the characteristics of each of the six Creative Commons license logos and two Public Domain licenses and 2) understand what each license gives them permission to do.

Materials

Each group should have the following at their table:

- Six Creative Commons (CC) logo cards
- Six Creative Commons (CC) description cards
- Six examples of resources that use the Creative Commons licenses

Instructions

1) Work as a group match the CC logo cards to the appropriate CC license description cards.
2) Find the appropriate resource that matches each license.

   Hint: Each resource will indicate which CC license it uses but some of them are easier to find than others.

Helpful Hints

Creative Commons

Attribution

Non-Commercial

No Derivatives

Share Alike

Figure 2. A set of instructions for a game

What can you tell about the intended audience for this document?

Now read a third example of technical writing in Figure 3, an infographic produced by the National Oceanic and Atmospheric Administration (NOAA) that explains how overfishing can harm coral reefs. *Infographics* combine text, visuals, and numbers to communicate dense information in quick and easy-to-read formats.

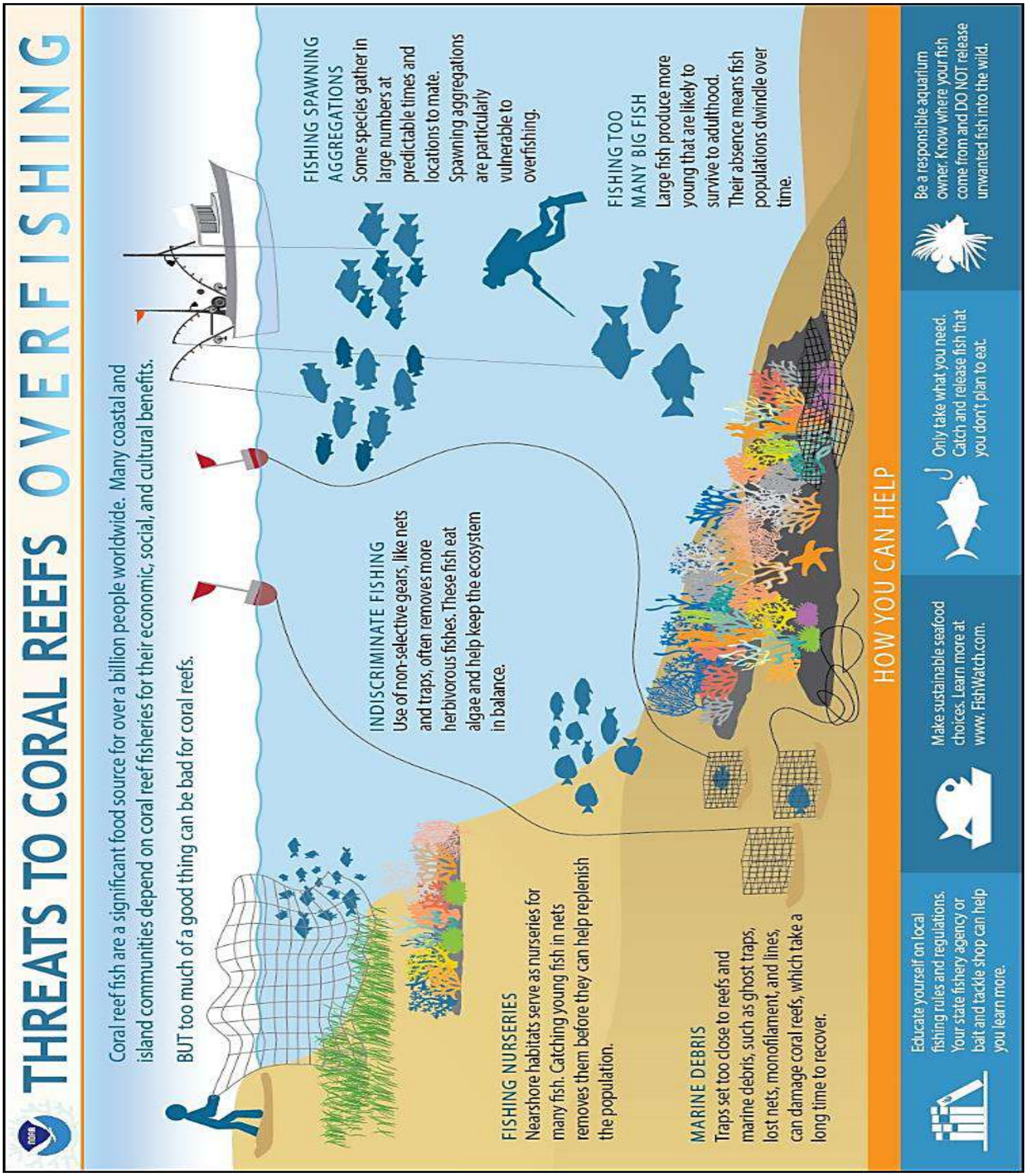


Figure 3. An infographic focusing on how overfishing affects coral reefs (NOAA, 2018)

What can you tell about the intended audience for this document?

Lastly, read the document in Figure 4, a multipage set of guidelines for writing a comparative essay produced by the Writing and Communication Centre, University of Waterloo (n.d.).

COMPARATIVE ESSAYS

Writing a comparison usually requires that you assess the **similarities** and **differences** between **two or more theories, procedures**, or **processes**. You explain to your reader what **insights** can be gained from the comparison, or **judge** whether one thing is better than another according to established criteria.

When you are asked to write a comparative essay, remember that, unless you are instructed otherwise, you are usually being asked to assess both **similarities** and **differences**. Such essays may be called **comparative essays, comparison essays**, or **compare-and-contrast essays**.

How to Write a Comparative Essay

1. **Establish a basis of comparison**

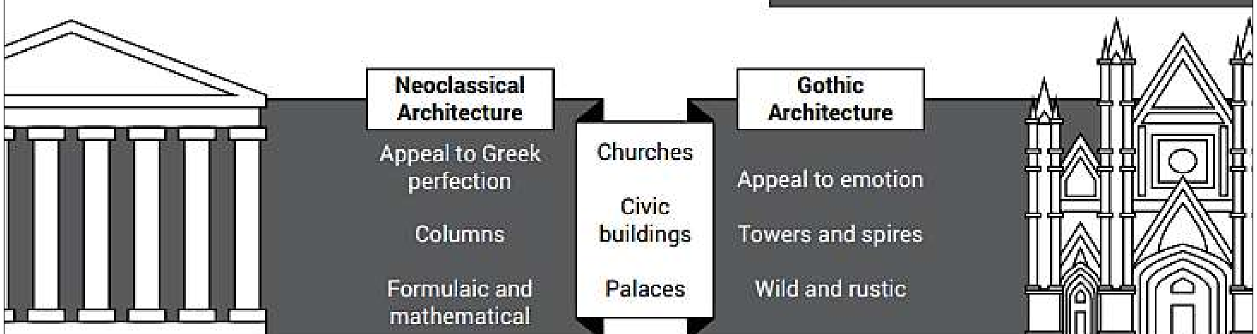
   A basis of comparison represents the **main idea, category**, or **theme** you will investigate. You will have to do some **preliminary reading**, likely using your course materials, to get an idea of what kind of criteria you will use to assess whatever you are comparing. A basis of comparison must apply to **all** items you are comparing, but the details will be different.

   For example, if you are asked to "compare neoclassical architecture and gothic architecture," you could compare the influence of **social context** on the two styles.

2. **Gather the details of whatever you are comparing**

   Once you have decided what theme or idea you are investigating, you will need to gather details of whatever you are comparing, especially in terms of **similarities** and **differences**. Doing so allows you to see which criteria you should use in your comparison, if not specified by your professor or instructor.

Organize your criteria in **columns** or a **Venn diagram**; using visual methods to map your pre-writing work can help you to stay on track and more clearly get a sense of how the essay will be structured.



Based on this information, you could focus on how ornamentation and design principles reveal prevailing intellectual thought about architecture in the respective eras and societies.

3 Develop a thesis statement

After brainstorming, try to develop a **thesis statement** that identifies the **results** of your comparison. Here is an example of a fairly common thesis statement structure:

e.g., Although neoclassical architecture and gothic architecture have [similar characteristics A and B], they reveal profound differences in their interpretation of [C, D, and E].

> **Avoid** a thesis statement that simply states your obvious purpose.
>
> *e.g., The aim of this essay is to compare [A and B] with reference to [X, Y, and Z].*

4 Organize your comparison

You have a choice of two basic methods for organizing a comparative essay: the point-by-point method or the block method.

The **point-by-point method** examines **one aspect** of comparison in each paragraph and usually **alternates** back and forth between the two objects, texts, or ideas being compared. This method allows you to emphasize points of similarity and of difference as you proceed.

In the **block method**, however, you say **everything** you need to say about one thing, then do the same thing with the other. This method works best if you want readers to understand and agree with the advantages of something you are proposing, such as introducing a new process or theory by showing how it compares to something more traditional.

Sample Outlines for Comparative Essays on Neoclassical and Gothic Architecture

Building a Point-by-Point Essay

Using the point-by-point method in a comparative essay allows you to draw **direct comparisons** and produce a more **tightly integrated essay**.

Note that you can have **more than three points of criteria**, especially in longer essays. The points can be **either** similarities or differences. Overall, in order to use this method, you must be able to apply criteria to **every** item, text, or idea you are comparing.

I

Introduction

a. **Introductory material**
b. **Thesis**: Although neoclassical and gothic architecture are both western European forms that are exemplified in civic buildings and churches, they nonetheless reveal, through different structural design and ornamentation, the different intellectual principles of the two societies that created them.

II

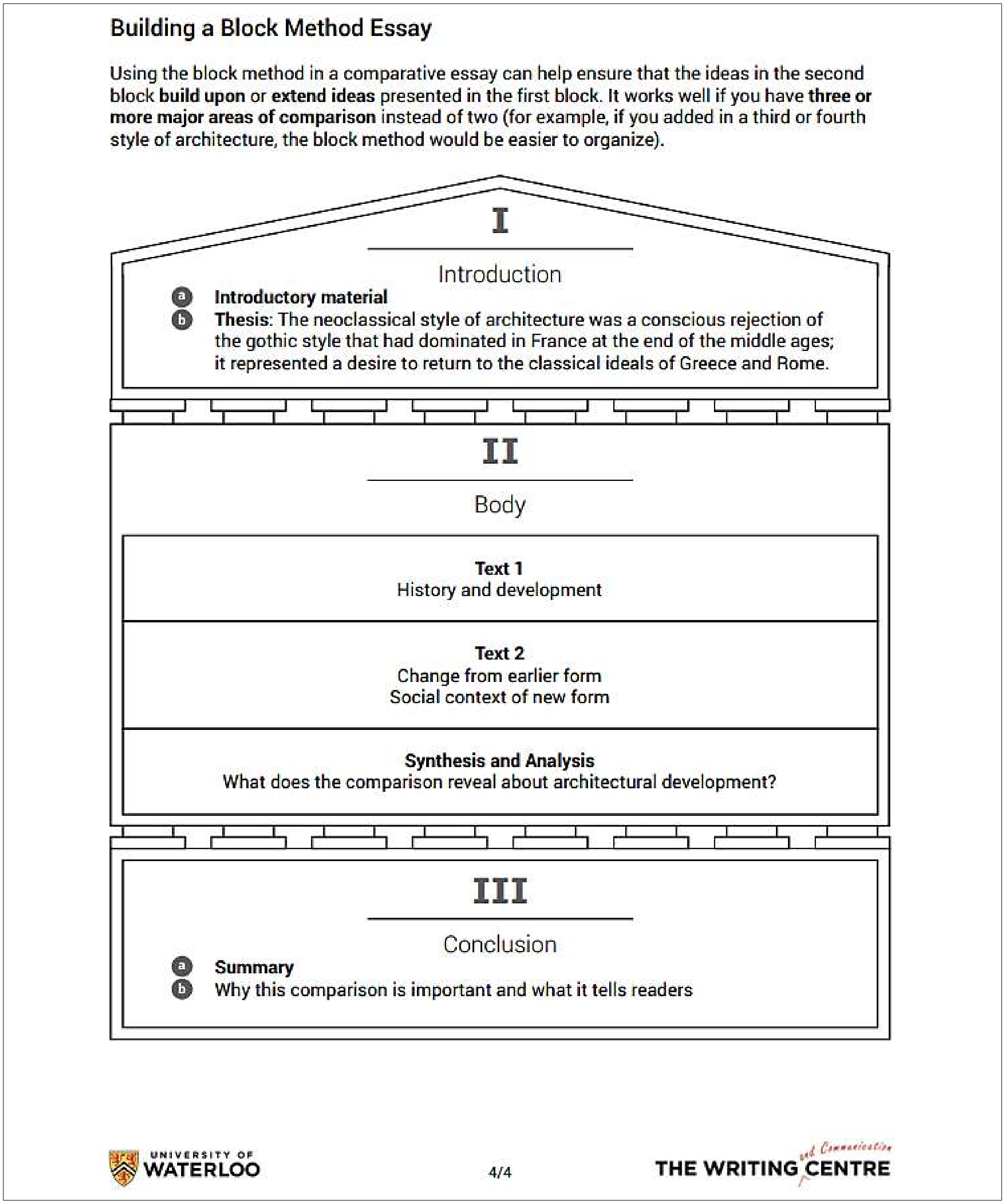
Body

Body Section/Paragraph 1 Criterion: Ornamentation	Text 1 Text 2
Body Section/Paragraph 2 Criterion: Major appeal	Text 1 Text 2
Body Section/Paragraph 3 Criterion: Style	Text 1 Text 2

III

Conclusion

a. **Summary**
b. Why this comparison is important and what it tells readers



Building a Block Method Essay

Using the block method in a comparative essay can help ensure that the ideas in the second block **build upon** or **extend ideas** presented in the first block. It works well if you have **three or more major areas of comparison** instead of two (for example, if you added in a third or fourth style of architecture, the block method would be easier to organize).

I

Introduction

a. **Introductory material**
b. **Thesis:** The neoclassical style of architecture was a conscious rejection of the gothic style that had dominated in France at the end of the middle ages; it represented a desire to return to the classical ideals of Greece and Rome.

II

Body

Text 1
History and development

Text 2
Change from earlier form
Social context of new form

Synthesis and Analysis
What does the comparison reveal about architectural development?

III

Conclusion

a. **Summary**
b. Why this comparison is important and what it tells readers

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Figure 4. A set of guidelines for writing a comparative essay

What can you tell about the intended audience for this document?

How do the audiences for the four examples you looked at differ? How might these differences have shaped the documents’ development? Please be prepared to discuss your ideas in class.

Activity B: Consider the Implications of Integrity in the Workplace

As this chapter mentions, correct technical communication is truthful in its message and is communicated ethically. To explore what these concepts mean from various perspectives, read the following piece, composed by Sarah Raymond, Director of Career Services at Montana Technological University. In 2020, Ms. Raymond conducted a series of informational interviews with employers to discover what integrity means to them. After you have read the text, work with classmates to address the questions that follow. Be prepared to discuss your team’s responses in class.

What do you do when no one is watching?

Although integrity, by definition, is “the quality of being honest and having strong moral principles” (Lexico, 2020, definition one), it is one of those abstract personal traits that can be difficult to pin down. Regardless, most people know what it is when they see it. You have probably witnessed times when people have disregarded integrity and may or may not have been caught. It can be devastating to watch when someone does get exposed, either as a result of a serious infraction or several small infractions that have previously been overlooked. In either case, the repercussions can be great.

Integrity is certainly important in academics, as academia is a training ground for the workplace. During her interview, Koren Vining, Vice President and Branch Manager at Cetera Investors, concurred with this view: “College gives you time to practice integrity and hone those skills, [and]…if you screw up, it isn’t life altering.” Mistakes can actually help people learn. Vining said she hopes her children learn from their mistakes before they enter employment—before their actions can really hurt their lives. To be sure, lapses in judgement, integrity, and ethical decision making can lead to substantial costs in the workplace: for example, your job, your money, your time, other people’s time, and other people’s money.

Companies recognize integrity in their employees and tend to promote those who work hard, do a good job, and have impeccable behavior. What leaders do and how they behave matters because people are always watching. Quality leadership correlates with a high degree of integrity, as well as transparency, accountability, responsibility, self-awareness, and other traits. Vining explained,

> There comes a time when you are ready to take the next step; by having worked the *right way*, you have put in the effort, you have practiced the skills for future success. If you have been accidentally successful, there will come a time when it will crash.

Working in an investment firm, Vining has unfortunately seen this destructive situation happen to former employees. In a highly regulated business, someone is always watching.

As a testament to her integrity as a leader, Vining has shared pieces of her management style and has been open with members of her work team. This transparency allows her team members to be successful on their own terms. To encourage their success and self-sufficiency, Vining shares the following guidance with her team members:

> Do your work. If you need a boss, someone to stand over you, this isn’t going to be a successful working relationship. However, if you need some structure and a coach, you can dictate your own success. Are you working on your own plan, or are you working on a plan that belongs to someone else?

Vining clearly values her employees’ beliefs in their ability to be successful and is transparent in her expectations.

In today's new abnormal, remote work is something many people have experienced for a sustained period of time. Maybe you have even experienced a remote classroom that was not what you had planned when you registered for the term. In this type of situation, discipline and focus will serve you well as opposed to trying to avoid hard work by taking short cuts. In relation to this point, Vining asked, "How do you want people to think about you?" In other words, what do they say about you when you are not there? Your personal brand and what you stand for matter in the workplace.

Putting in extra effort and time on tasks can cause stress, but Vining shared an alternate view: "Unless you are really a crappy person, there is stress involved with taking the short cut too." In other words, taking short cuts to circumvent hard work is stressful because of the fear of getting caught.

Vining offered sage advice as a 19-year recruiting veteran: "Cultivate personal integrity. You will be more apt to have more success." At the companies she has worked, she has been fortunate to witness corporate America elevate people who have integrity. Conversely, she has seen those who do not demonstrate integrity suffer. "Eventually it comes out, it may be post-mortem and that is certainly not how you want to be remembered." When you are responsible for someone else's resources (money, time, property) in a job, people expect you to value that position. Employers trust you to make the next right decision.

According to Glen Fowler, the former President of Mountain Pacific Association of Colleges and Employers (MPACE) and the National Association of Colleges and Employers (NACE), the adjectives *integrity* and *credibility* are synonymous. "Everything you say, if you are credible, I believe you without question. It is a distraction if you have to spend time and second guess people." Credibility is something that most employers are able to identify early in someone's career. Similarly, lack of credibility on the job—for example, when steering a team or when reporting back on its work—can be career limiting. "Credibility is about your personal reputation. Once it is marred, it is all over," according to Fowler. "People underestimate how small the world is. Leadership or decision makers know each other and if not, they will reach out to someone." Again, integrity is central to effective workplace performance.

Fowler echoed that academia is the time to develop and hone behavioral integrity. "This is how you are going to conduct yourself in the future." During his professional career, while onboarding staff and hiring scores of people, he observed that individuals entering his industry were Type A personalities. "These [were] people who [were] used to having all the answers. We had to break them of that mentality, break the conditioning they had developed. We had to give them the license to say 'I don't know.'" Fowler stressed, "You are better off saying that you don't know. You are hired for your expertise, but if you start your response with a conditional statement, 'I think,' people don't hear that qualification." Fowler also emphasized, "A sign of maturity is to admit you don't have all the answers," and quickly added, "But you can get them!"

Another subtlety of integrity and a way in which people can get into trouble, according to Fowler, "Is not just what you share, but what you didn't share even when you knew it would help and yet still withheld it." People may not openly communicate for a variety of reasons, none of which may be malicious or self-serving. Maybe they do not communicate because they want to avoid confrontation or uncomfortable situations. Or, they may tell themselves it is not their place to be forthright. Regardless, "A junior-level person can question or stand up to a senior person, based upon perceived facts and still be respected," according to Fowler. "To become a true leader, it is important to be engaged with your career and know yourself." In other words, recognize and own the values that underlay your actions and behaviors.

Employers use job interviews to assess a number of things: for example, skills, past performance, technical expertise, and level of workplace integrity. Some recruiters use behavioral or situational questions to help them better understand how job applicants would handle real-life problems or common situations. Here are a few interview questions for you to consider. How would you answer them during an employment interview?

- Tell me about a time you were new to a company or work group. What steps did you take to build trust with co-workers and/or staff?
- Give an example of a time when you over-committed yourself. How did you handle it?
- Describe a situation when you worked with someone you did not like or respect. How did you cope with the relationship?
- Tell me about a time when your values were in conflict with your employment organization's values. What did you do?
- Describe what the terms *integrity* and *ethics* mean to you. Tell me about a time when your integrity or ethics were challenged. What did you do?

Employers likely will not tell you outright when you are being asked questions about ethics or integrity. They may be more subtle and lay out situations to uncover your core values. Fowler shared, "Employers ask questions in…clever ways. They…[will] tee up a scenario that is specific to their industry. It gets at the heart of your personal judgement, conflict resolution, or teamwork." How will you respond? Will you make the next right decision? Are you a match for the team they already have in place?

As an employee, you will be evaluated on the quality of work you produce. That is another way your employer will measure your credibility. Are you performing the responsibilities of your post with integrity? Your employer will trust that you are going to do your work correctly, produce credible deliverables, and communicate effectively throughout projects. Your employer, in short, will rely on you to do what you say you will do in order to uphold the organization’s reputation and your own.

Integrity is clearly more than just the definition of honesty and moral uprightness. Ultimately, all you have is your word. The ability to follow through on your promises contributes to your professional reputation, and relationships and interactions with others count for a great deal. If people are not able to trust or rely on you in the workplace, you will miss opportunities for personal and professional success. Barb Crump, Director of Human Resources at Northern Montana Hospital, deals with people every day in her role. She values fairness in the workplace, and people come to her because they rely on her expertise and trust her willingness to guide them correctly. Crump shared, “Recently there was a post on Facebook that sums up what we are discussing: ‘I no longer listen to what people say. I watch what they do. Behavior doesn’t lie.’”

What are your responses to these items?

1. A new employee received training from someone else in the office. The person responsible for the training withheld information that was critical to completing a particular task. The new employee struggled to complete the task, and the trainer eventually shared the proper information.
    - How might the new employee feel?
    - Why would the person conducting the training withhold information?
    - What was wasted during the process: time, money, opportunities for collaboration and peer-to-peer learning, mental energy, or something else?
    - What might happen to team morale? What might happen to the overall morale in the office?
    - What did the company lose?

2. An employer contacted a university’s career services office to inquire about an intern’s transcript. The employer had worked with this office for some time to offer internship opportunities to students. The intern was required to provide the transcript as a condition of employment, but the employer had concerns about the document since its format did not resemble transcripts that had been provided in the past.
    - What do you think might have happened with the transcript?
    - What was damaged in this situation?
    - How should the employer respond?
    - How should the career services office respond?
    - How should the university respond?

3. Imagine you had the opportunity to interview for a dream job in your field and were provided the list of interview questions in advance. How would you respond to these questions?
    - Tell me about a time you were new to a group. What steps did you take to build trust with its members?
    - Give an example of a time when you over-committed yourself. How did you handle it?
    - Describe a situation when you worked with someone you did not like or respect. How did you cope with the relationship?
    - Tell me about a time when you encountered a conflict with someone, either at work or in school. What communication strategies did you use to resolve it?
    - Describe what the terms *integrity* and *ethics* mean to you. Tell me about a time when your integrity or ethics were challenged. What did you do?

Homework: Email Your Instructor about Your Experiences with Technical Writing

Consider this textbook chapter in relationship to your experience as a student, employee, or consumer. Compose an email to your instructor in which you address the following prompt: What are two kinds of documents you have written or encountered that could be characterized as technical writing, and why? Use standard conventions for professional emails when completing this task. For help with composing and formatting your email, consult the "Writing Electronic Correspondence" chapter of this textbook. This exercise is adapted from Last (2019, p. 9).

Remember to edit, revise, and proofread your message before sending it to your instructor. The following multipage handout, adapted from the Academic Writing Help Centre, Student Academic Success Service, University of Ottawa (2016), may be helpful in this regard.

Sentence Structure

A sentence is a group of words that begins with a capital letter and ends with a period. Together, these words must express an idea, and express it clearly.

The active voice puts the emphasis on the doer, i.e. the person or thing doing the action. It is more direct and less wordy.

Subject = Doer	Verb = Action	Object = Receiver
The boy	threw	the ball.

The passive voice puts the emphasis on the receiver, i.e. the person or thing receiving the action. It can be used when the doer is unknown or when the receiver is more important.

Subject = Receiver	Verb = Action	Object = Doer
The ball	was thrown	by the boy.

Clauses

A clause contains at least two elements (a subject and a verb), and sometimes three (a subject, a verb, and an object). It expresses one idea.

An **independent clause** (or main clause) is a group of words including a subject and a verb that can stand on its own.

[The boy threw the ball].

A **dependant clause** (or subordinate clause) is a group of words including a subject and a verb that cannot stand on its own. It must be connected to the independent clause, and it can act as a noun, as an adjective or as an adverb.

[The boy threw the ball] [while his teammate was running toward him].

Sentences

A sentence contains one or more clauses. Depending on the number of clauses that it contains, a sentence can express one or more ideas.

A **simple sentence** is made up of one independent clause.

[The boy threw the ball].

A **compound sentence** is made up of two or more independent clauses that are joined by a conjunction, a colon or a semicolon.

[The boy threw the ball], and [his friend caught it].

A **complex sentence** is made up of one independent clause and at least one dependent clause.

[The boy [who was wearing a green shirt] threw the ball].

A **compound-complex sentence** is made up of two or more independent clauses and at least one dependent clause. It can express three or more ideas.

[The boy [who was wearing a green shirt] threw the ball], and [his friend caught it].

Here is a list of common errors:

A **comma splice** refers to two clauses joined by a comma without a conjunction. To fix this, form two complete sentences, change the comma for a semicolon or add a conjunction.

> The dog barked, the mailman was at the door.
> The dog barked. The mailman was at the door.
> The dog barked; the mailman was at the door.
> The dog barked because the mailman was at the door.

A **dangling modifier** refers to a sentence beginning with a word or a phrase that modifies an element that is implied but absent. To fix this, change the subject of the main clause to specify the element that is described by the modifier, or change the structure of the modifier to form a complete clause including a subject and a verb.

> Before driving away, the cat was put in its travelling cage.
> Before driving away, we put the cat in its travelling cage.
> Before we drove away, the cat was put in its travelling cage.

A **faulty parallelism** refers to the use of irregular structures to list equal ideas in a sentence. To fix this, use parallel structures (like nouns, verbs, clauses or phrases) in a series.

> It offers better security, faster access, and the features are superior.
> It offers better security, faster access, and superior features.

A **faulty pronoun agreement** refers to the use of a plural pronoun when its referent is an indefinite pronoun (like *someone* or *everyone*), a generic noun or a collective noun. Use a singular pronoun or pluralize the referent.

> Every family has their problems.
> Every family has its problems.

A **run-on sentence** refers to two clauses joined without a conjunction or punctuation mark. To fix this, form two complete sentences, or add a semicolon or a conjunction.

> He smiled it was his lucky day.
> He smiled. It was his lucky day.
> He smiled; it was his lucky day.
> He smiled because it was his lucky day.

A **sentence fragment** refers to a dependant clause used on its own. To fix this, delete the conjunction or merge the sentence fragment with a neighbouring sentence.

> So she left.
> She left.
> He started crying, so she left.

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Selecting an Appropriate Genre

Stacey Corbitt

Chapter Overview

This chapter is being written during a time when many people in the United States – and across the world - would normally be starting to attend and enjoy baseball games for the spring and summer season. Part of the appeal of baseball season might be its predictability: that is, fans are familiar with the process and schedule, and they have expectations about attending a game. This familiarity brings comfort to fans: knowing how the event will run, and anticipating the sights and sounds, the smells and traditions lets baseball fans relax and get the most from their experience on game days.

Today, baseball season is occurring in the middle of the COVID-19 global health crisis. As a result, audiences no longer have the certainty they once anticipated. Will the experience match with their expectations? What are the likely consequences of the unfamiliar situation?

While variety may be the spice of life, predictability is the preferred flavor for technical writing. Effective documents are defined purely by how well they accomplish their writer's purpose. Writers must recognize the needs, limitations, and motivations of their audiences. Just as familiarity may provide a fuller experience for a baseball fan, appropriate genre choices by writers allow readers to anticipate and receive the message of a document.

Through study of examples found in many professional documents and practice of the information introduced in this chapter, students will learn to responsibly choose a genre for documents they write. By considering audience needs, limitations, and message requirements, students will select genres for their writing with the goal of improving the audience's ability to understand and use those documents efficiently.

This chapter aims to help students develop the following skills:

- to recognize by format and purpose the genres that are common in technical writing;
- to analyze the audience in preparation for writing; and
- to identify the context for writing as part of the effort to choose a genre in which to write a required document.

What does genre mean in general?

The term *genre* (pronounced "ZHAHN-ruh") comes from the root *gener*: think of words like *general* and *generic*. Its basic meaning is a kind or sort of something. As used in technical writing, *genre* refers to a typical or standardized way of using form, content, and style within an academic discipline or profession; a document format writers use to help readers recognize, understand and use the document in a defined context.

Similarly, the terms *audience* and *context* have more specific meanings when used in connection with technical writing practice. *Audience* refers to the users of a document, both those intended by the writer and those who otherwise encounter and read the document. *Context* is the situation in which a document is written or used, including the rhetorical as well as physical situation in technical writing.

Think about some form of art or expression you are familiar with: for example, most traditional-age college students enjoy music. Now, take a poll of 4 of your classmates and include your own responses:

Question: what is your favorite kind of music? List the names, including yours, of the people who responded to your poll, along with their answer in the space provided below:

Respondent Name	Favorite Music Genre

As you can see, genre is, put simply, the word for describing a set of characteristics that make up a type of something.

What does genre mean in technical writing?

Writing, like music, is a means of expression that also has various genres within it. We rely on our familiarity with standard forms, content, and style as writers and as readers because those standards make us confident we understand the information we present and receive.

Think about poetry, for example, as a genre of writing. While poetry can certainly be further classified by types into sub-genres, let's stay with the general type of writing that is poetry.

- Most of us have probably experienced poetry as readers, if not as writers. Whether or not we enjoyed it or understood it, we at least came away from the experience with a familiarity that allows us to have certain expectations about poetry. Maybe we're not sure how to do it, but we know it when we see it.

- Now, if you are someone who has written poetry, you may be familiar with the patterns and rules for writing a poem. You may have a sense of how many syllables make up a line, say, of a certain type of poem. You may know how many lines must be included in a stanza. Perhaps you know which pairs of lines should rhyme, and even how to construct levels of meaning through clever use of language and rhythm.

What does the phrase “I know it when I see it” mean to you when you think about poetry? What are the clues you think of that make poems easy to recognize? Write your response in the space below and be prepared to discuss your answer in class:

What are the common genres used in academic technical writing?

It should be apparent that “I know it when I see it” is a good place to begin learning as a new student of technical writing. Depending upon the path you have taken through this textbook to get to this chapter, your level of familiarity with technical writing as a genre is developing. This section introduces some of the most common documents assigned in college technical writing courses.

The Essay

Nearly all students have been assigned to write a “paper” in high school. Before you entered college, what you completed in a high school or university prep English class was most likely one or more essays. A research paper for sociology, or a term paper for American history, or an opinion-based final paper for civics class: each of these writings is a form of an essay.

Characteristics that may make a written composition fit the genre of an essay in academic writing include the following listed traits:

- An essay is usually assigned with a short to moderate length requirement. It will often be limited to a specific double-spaced page count or a word count range.
- Essays are typically limited to a single, non-fiction subject and often present an argument.
- An essay assignment will often require you to include evidence from researched sources to support your opinions as well as the statements you present as facts.

- Essay assignments usually require you to format your paper and provide citations (both in-text and at the end) according to a known style guide. In college writing, the American Psychological Association (APA) style guide is most commonly used.
- College level essays are written in a formal tone and the use of the pronoun you is discouraged. While formal essays may assume an audience of professors and other professionals, carefully review assignment specifications and consult your instructor to confirm the intended audience for all writing assignments.

<u>The Memo (short for Memorandum)</u>

In an effort to introduce students to the writing genres common in the business world, this textbook provides multiple opportunities to practice a widely-used form of correspondence: the memo. In purpose, form, and content, a memo is the ancestor of the modern e-mail.

Characteristics that may make a written composition fit the genre of a memo include the following listed traits:

- A memo is used to transmit messages among members of the same organization (that is, memos are internal correspondence). Memos specify one or more individual audience members to whom the message is addressed.
- A memo is usually single-spaced with block-style paragraphs (no indented first line). Memo headers may be single- or double-spaced, and should include these entries: TO: FROM: DATE: and SUBJECT.
- In business practice, memos may vary broadly in length: however, they tend to be shorter than essays in academic practice. Carefully review assignment specifications and consult your instructor to confirm the length requirements.
- Some memo assignments may require in-text citations and reference lists: review the assignment specifications carefully and ask your instructor if you need help.

What are the common genres used in professional technical writing?

An in-depth exploration of technical writing genres and details is outside the scope of this text and your related course(s). Nevertheless, it is useful to consider the ways in which the technical writing you practice here will apply directly to your work as a professional in any field. To better understand the relationship between college- and professional-level technical writing, consider the major purposes professional writing accomplishes.

<u>Arguments</u>

For example, as you learn to write argument essays, you will be developing your ability to clearly state claims and effectively integrate evidence from your research that supports your claims. Whether a writer’s intention is to analyze and evaluate a subject; to solve a problem and recommend a solution; or to persuade an audience to make some other kind of commitment, some kind of argument must be presented by the technical writer. When students can successfully write an argument, that mechanism can be deployed in many standard forms or genres, including but not limited to proposals; analysis reports; specifications; instructions; and recommendation reports.

Correspondence

It is quite likely that arguments like those discussed above may be presented in the form of memos, letters, or emails: however, the more common use of correspondence genres is simpler in a business setting. Memos (and letters and emails) present an excellent example of the typical day-to-day communication in business that requires strong technical writing ability. The exchange of technical information, whether in a three-sentence email or a three-volume formal report, must be clear, complete, concise, and correct every time.

How does audience analysis affect genre selection?

Again, depending on the path you have followed in working through this textbook, you may have seen multiple references already to the importance of defining the purpose of any document you are creating. Keeping the purpose for your writing in the front of your mind is critical not only to developing an approach to the task and selecting content, tone and wording carefully: thinking about purpose helps writers choose an appropriate genre as well.

The process of analyzing an audience for your writing can vary widely depending on the purpose of the writing, along with factors such as time and other resources available to use in identifying and studying an audience. While you are a first- or second-year student, your primary audience will most often be the instructor who assigned the writing task. Secondary readers may include your peers and others outside the school organization (a review committee for an external scholarship application, for example).

As you progress through college into upper-division coursework and beyond, your opportunities to write technical documents will expand. Although the essay is a common form of written composition (genre) in academia, you are unlikely to ever be asked to write an essay for your job. In fact, most of the time you will be expected to determine on your own what genre best fits the context for which you are writing.

The people who make up your audiences will also vary more as you pursue research grants, internships, collaborations and employment. The following questions may be used in technical writing situations as a starting point for analyzing audiences to select a genre. Decisions about other characteristics (such as content, design, style, and tone) may also be informed by the process of audience analysis.

What does the reader want or need from the document?

Remember that readers don't read your technical documents for the fun and adventure of reading. Keep in mind that the audience for any document is pursuing a purpose and has identified specific outcomes that will determine the success or failure of your document. Be as specific as possible in your effort to make your writing align with the audience's purpose for reading it.

What preferences and limitations do audience members have?

Questions to consider in this category are those that help a writer learn just who makes up the audience for a piece of writing.

- Are they researchers who want to see every detail of your experiment discussed and illustrated in a lab report?
- Are they executives who need an easy-to-understand summary with bottom-line costs they can rely on to approve or deny a proposal?
- Are they hiring managers who need a clear one-page resume they can scan in under 5 minutes?
- Are they clients with limited English skills who must draw critical information in your recommendation report from carefully-crafted illustrations?

How familiar are audience members with the subject of your writing?

For an unfamiliar audience, you may need to provide considerable background information; while a more familiar audience may be frustrated if they must wade through details they already know.

What will be your readers' initial attitudes toward the document?

Are they much too busy to read an in-depth report? Are they known to be highly skeptical of the information you are presenting in the document? Are they supportive of your efforts and your position on the subject?

What are the context considerations when choosing a genre?

Once you have completed a thorough analysis of the audience for whom you are writing a document, you will have at least a basic understanding of the context in which your document may be used. However, the context in which writers create documents is an even more important challenge. Read Elizabeth Wardle's passage about context and genre in "Bad Ideas about Writing" (2017) beginning on page 30 of that document online at https://textbooks.lib.wvu.edu/badideas/badideasaboutwriting-book.pdf . Make notes in the spaces provided below and be prepared to discuss the reading during class.

In her chapter “You Can Learn to Write in General,” Dr. Wardle argues that the title of her chapter is false. In your own words, write one reason the author says learning to “write in general” is not possible.

In your own words, explain what Dr. Wardle says students need to do in addition to learning grammar skills to become writers.

Chapter Conclusion

Writing a usable document depends greatly upon your careful analysis of the needs, desires, and limitations of the audience for whom you are writing. Always be aware of the context for which you write, as well as the context in which readers will use the documents. These efforts will help you identify the genre best suited to the writing task in front of you. Choosing the best genre for the rhetorical situation leads to confidence in writers and readers alike.

Activity: What would you do to succeed with integrity?

Read and discuss the following scenario with your classmates as directed by your instructor. Answer the questions and be prepared to discuss your answers in class.

Originality Fatality

Dorm-mates Omar and Noah are both enrolled in a second-year technical writing course. Omar, an international transfer student, took two writing courses at an English language institute before entering the mechanical engineering program. Noah, an industrial hygiene student, took a first-year writing course in his second semester and completed an internship at an oil refinery last summer.

Their technical writing assignment is to conduct an interview with a lab instructor in their respective departments and submit a memo report. Each student is directed to focus his report on outlining the information from the interview he finds most significant to second-year lab students. Assume the audience for the assigned documents is the technical writing instructor. The students are encouraged to peer-review each other's work, but the assignment is to be completed by each student individually.

In addition to details such as the required length and due date, what questions would you ask the instructor as you prepared to write this assignment?

The assignment sheet specifies a memo report as the required genre for this work. Are you familiar with that genre? How can you find out more about the genre if you are not sure?

Originality Fatality continued:

Back at their dorm after dinner, the classmates talk about their writing assignment. Noah says he learned at his internship that *memos* are documents used all the time in business. They are kind of like an email, he explains to Omar, but not as formal as a letter. Noah looks for a flash drive he used at that job: he reasons he may have kept a copy of a memo or two he wrote and can use that as an example.

Noah's plan doesn't give Omar much confidence, particularly since Omar is sure he has never seen a memo, much less written one. Omar did write several *reports* while studying at the language institute, and he remembers learning those reports were called *essays*. Omar decides to look online and see what clues he can find. He uses Google to search for "essay mechanical engineering." A couple of ads appear at the top of the search result, and within a few seconds of scanning Omar sees a link called *Mechanical Engineering Essays: Examples, Topics, Titles….* Thinking that *examples* are really what he needs to get a better understanding of this assignment, Omar clicks that link.

Consider and discuss with your classmates the next steps in the case of Originality Fatality:

Originality Fatality continued: <u>Noah's outcome</u>

Noah does not have copies on his flash drive of any memos he wrote last summer at his internship. He decides to see if his work email address is still active, and he is able to get signed on to the company's intranet. There he knows he can do one of two things:

1. Go to his email and download a memo that was sent to him during his employment; or
2. Sign on to the company's internal network and download the standard form of memo stationery from the company's repository.

Either way, Noah figures he will get a formatted document that is acceptable as a memo. He will use the company's logo and color scheme as presented: that should impress the instructor since it looks very professional. Noah replaces the names, dates, and body text of the company memo and emails his lab instructor to set up the interview.

Which, if either, of Noah's options would you and your classmates recommend? Is there another option you discussed that would be better? Explain your answer: review the Choosing Integrity chapter in this textbook if you need further help.

Now consider the decisions Omar made about the writing assignment.

Originality Fatality continued: Omar's outcome

Omar's Google search results made him feel much better about this assignment. The website he went to had several good examples available, and he was able to find an essay there that looked exactly like he remembered reports on which he earned high marks back in English class. He decides to pay the per-page fee charged by the website to customize and download his example so he has something to follow when he drafts his assignment after the interview. Omar emails the instructions for his assignment to the website address. He then emails his lab instructor to set up the interview.

At this point, it appears that Omar has decided to write his assignment as an essay rather than in the genre assigned by his instructor. Why do you think Omar has abandoned the specifics prescribed by the assignment? What action would you recommend to him instead?

Originality Fatality conclusion:

Omar and Noah each conduct their interviews and discuss their different experiences. They decide to exchange documents for a peer review before either submits his work for grading. Although the documents do not appear alike at all, each says the other's work looks great. Neither student suggests any changes beyond correcting a few grammar errors during the peer review. Omar decides to add a memo heading to the top of the first page of his essay after reviewing Noah's memo. Noah likes the formality of Omar's essay title page and adds one of those to his memo.

Homework

Each of the documents submitted in the case above received a failing grade from the instructor. You do not need to read the documents to understand why they were unacceptable. You should, however, review the academic integrity policy of your university: for Noah's case in particular, read the details about what constitutes plagiarism.

Write a memo from the instructor, Professor Jones, to Noah that explains why he received a failing grade on the memo report assignment. A general format for the header and summary introduction of a memo is provided in Figure 1 below.

MEMORANDUM

TO: Noah Smith, Student
FROM: M. Jones, Instructor
DATE: September 30, 2021
SUBJECT: Academic Integrity Violations – Memo Report

This memo contains a discussion of my serious concerns about the Interview Memo Report you submitted for writing class yesterday. Below you will find one or more provisions of our university's academic integrity policy, together with an explanation of how your document violated the policy. Finally, the consequences of your violations of the policy will be outlined.

Figure 1. Header and summary introduction of a memo (example)

Keep in mind you are writing to Noah (your audience) as a professional (his instructor). The memo's purpose is to educate Noah and require him to respond. Write your memo using tone and language that is appropriate for the context, which is a case of school policy violation. In this instance, what message do you want Noah to understand? In order to avoid undue panic or irresponsible behavior from Noah, what tone or language should you avoid?

Technical Writing Document Creation Assignment

1. During or following in-class discussion, make a list of the mistakes Omar made in this situation, including in your own words why each choice was a mistake. Focus on the topics of genre, academic integrity, and contract cheating.
2. Obtain a copy or a link to your university's policies regarding academic integrity (sometimes these are called academic dishonesty or student code of honor policies). Read the information carefully and ask questions of your instructor or administrators about anything in the policies that you do not understand.
3. Write a letter as the Academic Integrity Officer of your university to Omar Khaled with a cc. to Dr. David Kumar, the department head for mechanical engineering. In your letter, address the following issues, explaining why they are important:
   - Genre: Omar submitted his document in the form of an essay, instead of a memo as required by the assignment.
   - Academic integrity: The university's policy covers violations beyond presenting work as one's own that was actually written by someone else (plagiarism).
   - Contract cheating: Omar paid a fee to an online purveyor to provide him with an essay. Omar used the purchased essay and changed the content to reflect the information found in his own research.
   - Consequences: The university's policies provide for sanctions that can impact Omar academically and financially as a result of the violations.
4. Finally, your letter should make a recommendation to Omar regarding the next steps he should take to resolve the matter of his academic integrity violation(s).

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Exploring the Cost of Poor Communication

Dawn Atkinson

Chapter Overview

This chapter aims to help you understand the value of clear, concise, complete, correct, coherent, and courteous communication by exploring the costs of poor communication from various vantage points. It emphasizes that communication choices can affect reader perception, job prospects, financial wellbeing, safety, and professional advancement.

Varieties and Ramifications of Poor Communication

Written communication in English follows certain rules and guidelines, and these help a writer produce text in line with established conventions. Eagerness to apply these rules and guidelines reveals a great deal about a writer's professionalism, attention to detail, and level of literacy in a reader's eyes. In other words, grammar, punctuation, capitalization, word choice, style, and other writing qualities can communicate far more than correctness; they can also contribute to perceptions of a writer. These observations also apply to organizations and companies that produce written communication: readers may form opinions of the entities based solely on the quality of their written communication.

As textbook writer Last (2019, pp. 23-24) so aptly articulates, deviations from the rules and conventions of written communication can lead to substantial costs, both in terms of monetary expenditures and lost reputation. She elaborates that writing gaffes, such as inefficient or unclear emails, incomplete or otherwise sloppy instructions, poorly designed reports, and confusing memos and letters, result in workplace inefficiencies and monetary repercussions that are sometimes difficult to pinpoint but that nevertheless have far-ranging effects beyond document pages. In extreme cases, poorly written documents can lead to property damage, physical injury, and even death, so the stakes surrounding effective communication are quite high.

Plagiarism is another writing issue that is associated with substantial costs, both in academia and in the workplace, due to its harmful nature: it constitutes intellectual property theft, obfuscates the true origin of information, and misrepresents a writer's actual skill set. To be clear, plagiarism can lead to failing grades, expulsion, damaging notes on transcripts, withdrawal of diplomas, firing, and damaged career prospects.

Plagiarism can take a number of forms, and as a college student and ethical technical communicator, it is your responsibility to recognize and avoid all of them. The following list, adapted from NorQuest College Library (2020, "Common Examples of Plagiarism"), identifies some of the most common varieties. Read the definitions for the types of plagiarism and identify what can be done to avoid these situations. Be prepared to discuss your ideas in class.

- **Word-for-Word Plagiarism – No Quotation Marks:** Using another's text word for word without enclosing it in quotation marks. Even if the writer provides a citation, this situation still constitutes plagiarism: although the original source may be cited, the omission of quotation marks leads readers to incorrectly assume the writer has produced the text.

- **Word-for-Word Plagiarism – No Citation:** Copying another's text, enclosing it in quotation marks, but failing to cite the source. Although quotation marks indicate the text is from another source, readers cannot determine its origin without a citation and reference.

- **Paraphrasing or Summarizing – No Citation:** Paraphrasing or summarizing a text without citing and referencing its source. This situation leads the reader to believe the paraphrased or summarized ideas are the writer's own.

- **Paraphrasing – Find and Replace:** Substituting a few words in the original source with synonyms without significantly changing the writing style. Even if the original source is cited and referenced, this situation represents inadequate paraphrasing.

- **Self-Plagiarism:** Presenting your own previous work as new work. In other words, submitting a paper used for one class in a different class without making major changes to it or indicating its origin.

- **Group Collusion:** (1) Copying another person's work or having another person complete the work for you, and then presenting it as your own; or (2) allowing someone else to copy your work and present it as his or her own; or (3) collaborating with others on a project without official approval, and then submitting all or part of the work as your own original individual work.

- **Patch Working:** Producing writing that consists mostly of others' ideas, with little original thought or content, while including proper citations and references for sources.

Case Studies of Poor Communication

To help you better understand the real-world costs of poor communication, we will now explore a series of case studies. A case study "[investigates] a particular person, group, or event in depth for the purpose of drawing a larger conclusion from the analysis" (Horkoff, 2015, p. 16). The first four case studies are adapted from Georges (1996, as cited in Last, 2019, pp. 25-27), while the final one is adapted from Powell (2019, "Faulty Communication and Real Consequences"). In pairs or small groups, examine each case and complete the following tasks, which are adapted from Last (2019, pp. 24-25):

1. Define the rhetorical situation: Who is communicating to whom about what, how, and why? What was the goal of communication in each case?
2. Identify the communication error (for example, poor task or audience analysis, use of inappropriate language or style, poor organization or formatting, or something else).
3. Explain what costs/losses were incurred by the error.
4. Identify possible solutions or strategies that would have prevented the problem and what benefits would be gotten from implementing solutions or preventing the problem.
5. Present your group's findings in a brief, informal presentation to the class.

Cases
Case 1: The Promising Chemist Who Buried His Results Bruce, a research chemist for a major petrochemical company, wrote a dense report about new compounds he had synthesized in the laboratory from oil refinery by-products. The bulk of the report consisted of tables listing their chemical and physical properties, diagrams of their molecular structure, chemical formulas, and computer printouts of toxicity tests. Buried at the end of the report was a casual speculation that one of the compounds might be a particularly effective insecticide.

Seven years later, the same oil company launched a major research program to find more effective but environmentally safe insecticides. After six months of research, someone uncovered Bruce's report and his toxicity tests. A few hours of further testing confirmed that one of Bruce's compounds was the safe, economical insecticide the company had been looking for. By that point, Bruce had left the company because he felt that the importance of his research was not appreciated.

Case 2: The Unaccepted Proposal for a Current Regulator

The Acme Electric Company worked day and night to develop a new current regulator designed to cut the electric power consumption in aluminum plants by 35 percent. The company knew that although the competition was fierce, its regulator could be produced for less money, was more reliable, and worked more efficiently than the competitors' products.

The company's owner, eager to capture the market, somewhat hastily composed a 120-page proposal for three major aluminum manufacturers, recommending that its regulators be installed at all company plants. He devoted the first 87 pages of the proposal to the mathematical theory and engineering design behind his new regulator, and the next 32 pages to descriptions of the new assembly line he planned to set up to produce regulators quickly. Buried in an appendix were the test results that compared his regulator's performance with present models along with a poorly drawn graph that showed how much the dollar savings would be.

Acme Electric did not get the contracts, despite having the best product. Six months later, the company filed for bankruptcy.

Case 3: The Instruction Manual that Scared Customers Away

As one of the first to enter the field of office automation, Sagatec Software had built a reputation for designing high-quality and user-friendly database and accounting programs for businesses. When the company decided to enter the word-processing market, its engineers designed an effective, versatile, and powerful program that Sagatec felt sure would outperform any competitor.

To be sure that its new word-processing program was accurately documented, Sagatec asked the senior program designer to supervise the writing of an instruction manual. The result was an accurate and precise description of every detail of the program's operation.

When Sagatec began marketing its new word processor, cries for help flooded in from office workers who were so confused by the massive manual that they could not even figure out how to get started. Then several business journals reviewed the program and judged it excessively complicated and difficult to learn. After an impressive start, sales of the new word processing program plummeted.

Sagatec eventually released a new, clearly written training guide that led users through introductory exercises in a stepped fashion and told them how to find commands quickly. The rewrite cost Sagatec $350,000, a year's lead in the market, and its reputation for producing easy-to-use business software.

Case 4: One Garbled Memo—26 Baffled Phone Calls

Joanne supervised 36 professionals in six city libraries. To cut the cost of unnecessary overtime, she issued the following one-sentence memo to her staff:

> When workloads increase to a level requiring hours in excess of an employee's regular duty assignment, and when such work is estimated to require a full shift of eight (8) hours or more on two (2) or more consecutive days, even though unscheduled days intervene, an employee's tour of duty shall be altered so as to include the hours when such work must be done, unless an adverse impact would result from such employee's absence from his previously scheduled assignment.

After the 36 copies were sent out, Joanne's office received 26 phone calls asking what the memo meant. It took a week to clarify the new policy.

Case 5: The Real Consequences of Faulty Engineering Communication

In 1986, the spaceship Challenger exploded, and a failure of communication was partially responsible for that disaster. An O-ring problem, or "the failure of a rubber seal in the solid rocket booster," meant the shuttle's construction was flawed (Winsor, 1988, p. 102). From early 1984 until 1985, the O-ring problem was noticed but was dismissed or not taken seriously. In July 1985, Roger Boisjoly, an engineer who worked for Morton Thiokol International (MTI), the contracting firm overseeing the solid rocket boosters, sent a memo to MTI's vice president of engineering stating the O-ring problem was serious: "It is my honest and very real fear that if we do not take immediate action…to solve the problem…then we stand in jeopardy of losing a flight along with all the launch pad facilities" (The Presidential Commission on the Space Shuttle Challenger Accident, 1986, p. 788). MTI engineer Brian Russell wrote an August 9 letter as a follow-up to Boisjoly's memo. In it he stated, "If the primary seal were to fail from…330-660 milliseconds the chance of the second seal holding is small. This is a direct result of the o-ring's slow response compared to the metal case segments as the joint rotates" (The Presidential Commission on the Space Shuttle Challenger Accident, 1986, p. 1569). Russell's memo does not provide any interpretation of the situation, and as such, "did not communicate its intent [as] is shown by the fact that the people who read it were uncertain about what it meant" (Winsor, 1998, p. 105). The important information in the Russell memo, which is quoted above, was buried in the letter after such reassurances as, "MTI has no reason to suspect that the primary seal would ever fail after pressure equilibrium is reached" (The Presidential Commission on the Space Shuttle Challenger Accident, 1986, p. 1569). The Challenger launch was delayed because of the O-ring problem, but on January 28, 1986, the shuttle launched. Then it exploded.

Case Study Wrap-Up

Consider your responses to the following questions, and share those responses with the class.

1. What themes are common in the cases?
2. How do these themes relate to expectations for your writing assignments?

Homework: Prepare for a Seminar Discussion about the Consequences of Writing Mistakes

To prepare for a seminar about the consequences of writing mistakes, read the following articles for homework: "How Not to Die Using a Neti Pot" (DiSalvo, 2012), "Why Typos and Spelling Mistakes Don't Really Matter" (Kellaway, 2014), and "The Commas that Cost Companies Millions" (Stokel-Walker, 2018). References for these publications are listed at the end of this chapter. In addition, read one assigned article about writing errors; your instructor will split the class into groups and will indicate which additional article you should read. Bring printed copies of the articles you read to your next class, and be prepared to discuss them.

Group 1: Boland, J., & Queen, R. (2016, April 19). *Why grammar mistakes in a short email could make some people judge you*. The Conversation. https://theconversation.com/why-grammar-mistakes-in-a-short-email-could-make-some-people-judge-you-57168

Group 2: Colasimone, D. (2016, June 10). *Adidas shamed over misspelling of Colombia in Copa America advertising campaign*. Australian Broadcasting Corporation (ABC) News. https://www.abc.net.au/news/2016-06-09/adidas-shamed-over-misspelling-of-colombia-in-ad-campaign/7495702

Group 3: Conner, C. (2013, March 11). *Report: How grammar influences your income*. Forbes. https://www.forbes.com/sites/cherylsnappconner/2013/03/11/report-how-grammar-influences-your-income/#adcc2c213dd3

Group 4: Mullinax, A.B. (2019, March 22). Why am I not getting a second interview [LinkedIn post]. LinkedIn. https://www.linkedin.com/pulse/why-am-i-getting-second-interview-ashley-bowen-mullinax?trk=portfolio_article-card_title

Group 5: Wright, M. (2018, October 12). Secretary of state issues correction for voter information pamphlet. *Bozeman Daily Chronicle*. https://www.bozemandailychronicle.com/news/secretary-of-state-issues-correction-for-voter-information-pamphlet/article_686ba9a3-5c94-5450-86b3-be7afda2f5a8.html

Seminar Discussion: Consequences of Writing Mistakes

You were asked to read the following articles for homework: "How Not to Die Using a Neti Pot" (DiSalvo, 2012), "Why Typos and Spelling Mistakes Don't Really Matter" (Kellaway, 2014), "The Commas that Cost Companies Millions" (Stokel-Walker, 2018), and one assigned article about writing errors. Please take out those articles.

Seminar Instructions:

Work for 20 minutes with classmates who read the same assigned article to develop answers to questions and decide how you will communicate those points to your classmates who read other articles. Assume one of the following roles when collaborating with your group to keep the workload equitable and complete tasks on time.

— *Time Keeper/Facilita*tor: You are responsible for getting started on time and for moving the discussion forward so the group can cover everything needed in the time given.

— *Record Keeper*: You are responsible for taking notes on the issues discussed and for reporting the results of the group's discussion/work to the whole class.

— *Chair*: You are responsible for ensuring that all team members perform their tasks, for soliciting input, and for encouraging a positive and productive work approach.

— *Equal Opportunities Monitor*: You are responsible for ensuring that everyone is able to participate and for checking for alternative ideas.

Refer to the readings when needed when discussing answers to the following questions, and be prepared to discuss your responses with the whole class during seminar plenary.

1. What are the main points of your group's assigned article?
2. What does your group think of these points, and why?
3. How does your assigned article relate to the three articles the whole class read: "How Not to Die Using a Neti Pot" (DiSalvo, 2012), "Why Typos and Spelling Mistakes Don't Really Matter" (Kellaway, 2014), and "The Commas that Cost Companies Millions" (Stokel-Walker, 2018)?
4. What are the various consequences of writing mistakes according to the sources you read?

Seminar Wrap-Up:

To draw the seminar to a close, share your responses to the following questions with the class.

1. How are the perspectives from the articles similar, and how are they different?
2. What is your opinion of the articles you read, and why?
3. How are the articles and today's seminar discussion relevant to your work in this writing class?
4. How are the articles and today's seminar discussion relevant to the course outcomes for this class? Review the course outcomes if necessary.

Homework: Email Your Instructor about the Seminar Texts and Discussion

Compose an email message to your instructor in which you address the following questions.

1. What did you find to be the most interesting, thought-provoking, or unusual idea(s) presented in the texts you read?
2. What can you take away from the seminar from the perspective of a professional in training?

Use standard conventions for professional emails when completing this task, and cite and reference any outside sources of information you use. For help with formatting and composing a clear message, consult the "Writing Electronic Correspondence" chapter of this textbook and the following handout, which is adapted from Vos (2018).

Sentence Building and Punctuation Made Simple

English has two basic ways of combining words into groups: phrases and clauses

Phrases are centred around nouns (*in the van, by early morning*).
Clauses are centred around verbs (*she runs the marathon; when he saw the ruins*).

All sentences are constructed from two types of **clauses**.

1. The **main, principal, or independent clause**. It contains a subject (noun), a predicate (verb), and expresses a complete thought:

   She decided to walk to the park.
   (subject) (verb) (= complete thought)

2. The **subordinate or dependent** clause. It also contains a subject and a verb but does not express a complete thought. Subordinate clauses often begin with words like *since, while, although, despite*, etc.:

   Because it was a sunny day...
   (subject) (verb) (= incomplete thought)

Combining clauses is what sentence building is all about. Joining a **subordinate** clause with a **main** clause requires only a comma:

✓ *Because it was a sunny day, she decided to walk to the park.*
(subordinate clause) (main)

The tricky part comes when two **main** clauses are joined together. Punctuation options include:

- ✓ A period: *It was a sunny day. She decided to walk to the park.*
- ✓ A semi-colon: *It was a sunny day; she decided to walk to the park.*
- ✓ A comma with a linking word (coordinating conjunction): *It was a sunny day, so she decided walk to the park.*

Other coordinating conjunctions are *and, but, yet, or, nor* and *for*.

- X **Comma splices: Do not** use a comma to join two main clauses in a sentence: e.g., *It was a sunny day, she decided walk to the park*. A comma is too weak a form of punctuation, and the resulting error is called a **comma splice**.
- X **Run-on sentence:** Joining two main clauses with *no* punctuation is called **a run-on sentence.**

Both are considered to be major sentence errors.

A special case is when two main clauses are combined, and the second one begins with *however* (or other conjunctive adverbs like *therefore, thus* or *nevertheless*). A semi-colon must be used; a comma is too weak, and will create a comma splice:

✓ *It was raining; however, she decided to walk to the park.*

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Using Writing Processes

Stacey Corbitt

Chapter Overview

The late William Zinsser, a rock star among writing teachers, has been quoted for years by instructors in attempts to encourage students of nonfiction writing. One quotation attributed to his book, *On Writing Well* (1976, p. vii), is “Writing is thinking on paper.”

There are likely a number of ways to interpret Zinsser’s statement. As it relates to technical writing, it may point to the idea that writing is not a specific concrete action, but a vague, often messy process. Instead of being a linear exercise of completing a series of ordered steps to finish with a complete product, it’s a recursive process through which we must remain flexible and open to growth and discovery, through both successes and errors.

This chapter aims to help students develop skills in using writing processes. You will practice exploring a topic and developing comfort with starting the process of writing. You will also actively form a research question and develop it into a working thesis; organize information and plan a draft using some form of outline; and write a complete first draft. Concepts that may be new to students include the following: *drafting, outlining, prewriting, reporters’ questions, research question*, and *thesis statement*.

Explore a Topic

Sometimes your writing assignment leaves the topic choice to you; other times, a topic is presented by your instructor. In either case, begin your writing process at the beginning: that is, begin by thinking on paper.

Prewriting ABCs

While learning high school or first-year college composition, you may already have used one or more of the popular methods of idea generation and topic exploration that writing texts and instructors call *prewriting*. Writers may use a variety of activities to develop ideas and otherwise prepare to write a document, including but not limited to brainstorming, freewriting, listing, and clustering. No specific prewriting activity is required for technical writing: many options exist, and students should try various methods to find what works for each situation. A selection of prewriting activities is introduced here: you may find others you like best.

A is for Asking Questions

Researchers ask who, what, when, where, why, and how questions in the process of exploring topics and developing starting points for their research. Whether you know a great deal about the assigned topic or very little, using these *reporters’ questions* to gather information can help you narrow the topic and generate ideas about the focus for your writing. You may elect to ask your questions through academic search engines provided by your university library. Your topic may also allow for you to interview one or more subject-matter experts, using reporters’ questions in discussion as a means of sparking your own creativity. However you approach asking questions, the sooner you begin writing down questions and seeking answers, the faster you can get comfortable with your own unique approach to the first step of your process.

B is for Brainstorming

Sometimes the term *brainstorming* is used as a synonym for prewriting. You may have had experience, for example, with *freewriting* as a form of brainstorming, in which you were asked to write everything that came into your mind for a prescribed period of time. Freewriting can be challenging because of its lack of structure and the common fear of a blank page (or screen), but it can also be a useful warmup exercise to help relax your mind.

Within the umbrella term of *brainstorming*, you may find it useful to begin writing lists. *Listing* is a prewriting method of some writers who prefer linear thinking. Listing is an adaptable method of brainstorming that allows writers to feel more focused than when freewriting while still thinking on paper. The adaptability of this method is demonstrated in the exercise below.

C is for Clustering

A prewriting method that can work well for visual and tactile learners involves visual representations of ideas and their relationships to each other. This method is also described as *mind mapping* within this textbook. Writers may begin by writing the topic in the middle or on the top of a blank sheet of paper (usually with a circle or box around the topic). As ideas or subtopics occur during thinking and discussion, branches with more *clusters* – like leaves on a tree – are drawn and connected to each other with lines to indicate relationships the author may want to explore. Figure 1 is an example of what a clustering prewrite may look like.

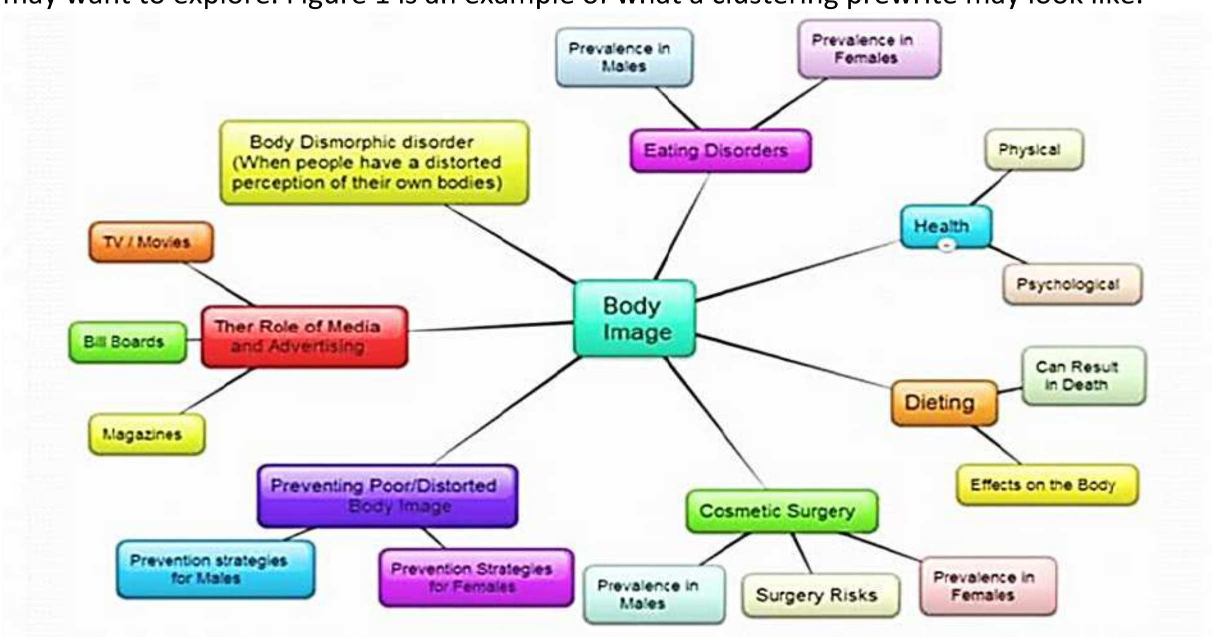

Figure 1. Example of a prewriting cluster for the topic of Body Image. (Costello, 2020)

In the example above, the general topic area is located in the center of the cluster or mind map. Each of the nodes radiating directly from that topic (see Figure 2 below) is an idea that might be explored as a subtopic about which a student could research and write. The outer ring of nodes in Figure 1 represent even more specific areas the student could explore, still narrowing the general topic of "body image" to a manageable subject for a paper.

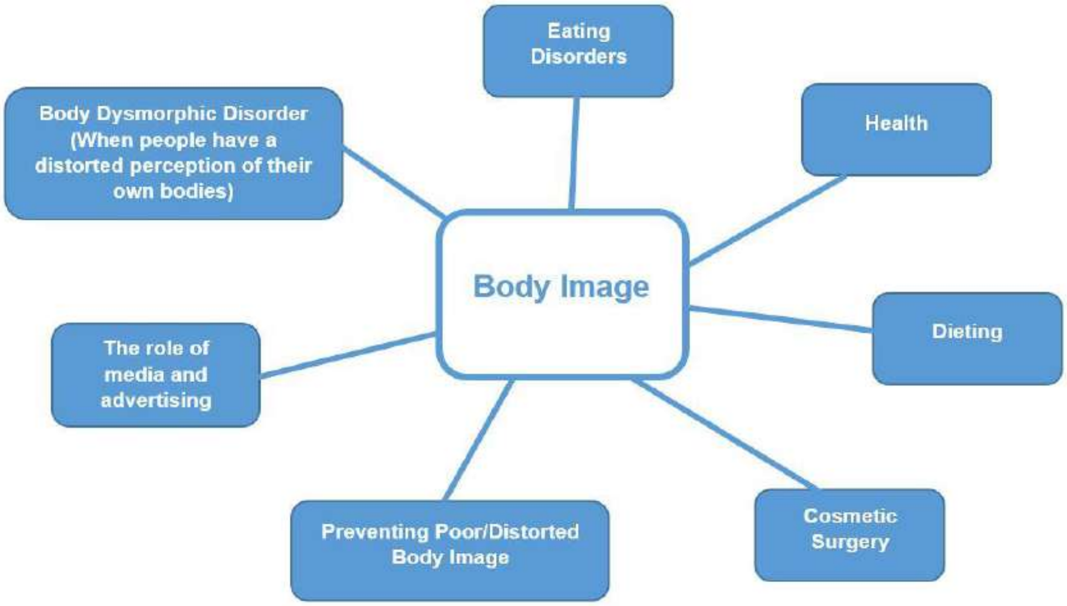

Figure 2. First level of subtopics branching from central topic. (Costello, 2020)

A last note about prewriting: it may be uncomfortable to begin, but it is worth trying.

Activity A: Prewriting Practice

Your instructor may provide you with a general topic area as a starting point. For purposes of this exercise, start with something like "pet owners." Work alone or with a partner to try out the various prewriting activities described here. You will find this experience eye-opening and perhaps even enjoyable if you give yourself time to explore.

1. Ask questions: Talk with your partner about the general topic of pet owners. Together, make some notes about the ideas you each develop as you talk. It's important to realize that some ideas will be abandoned for any number of reasons: that's a part of the process of prewriting. Just keep talking and taking notes. You may also want to spend time "Googling" key words for ideas and current news. While commercial internet search engines are not ideal for scholarly research, they certainly can be an easy way to start exploring a topic to find the subtopics that you may want to write about.

2. Brainstorm and Cluster: As you proceed through this practice activity, you may notice the steps begin to melt together: in other words, you are likely to ask more questions, maybe build a list or two, then draw a mind map, then ask more questions, and so on. Ideally, prewriting practice will lead you from a general topic area to a specific aspect of the topic that you find interesting and want to research. Your writing assignment outcomes will be the most successful if based on a research question that is clear, concise, and compelling.

Develop a Thesis by Beginning with a Research Question

Now that you have narrowed the scope of the topic you want to write about, it is time to formulate a research question. The research question becomes the focus of your inquiry and guiding point for your research. Your initial research question is often suggested by the most interesting or compelling information you have found through the process of prewriting.
A *research question* is a concise and complete sentence in the form of a question identifying the specific research topic to be explored.

Stating a research question is really nothing more complicated than writing a question that you want to answer for yourself through research. Consider how you might develop a research question related to one of the subtopics you identified with your partner about Pet Owners:

- What did you learn during your brainstorming session that surprised or puzzled you? The answer might lead you to a research question.
- Did you locate and discuss either an ethical or legal issue related to pets and their owners?
- How about something related to new technological development?
- Is there something historically significant that interests you about the topic?
- There are likely areas of psychology and human health (as well as other academic disciplines) where recent studies have developed interesting new information.

Review Figures 4 and 5 in the "Reporting Research Outcomes" chapter of this textbook for an illustration of the process to follow as you develop a working thesis based on a research question.

Activity B: Research Question Practice

It's time to get your feet wet in the research question-writing process. In the space provided, write two sentences in the form of questions that explain what you want to learn from your research into a subtopic of <u>Pet Owners</u>. Base your questions on one of the subtopics you identified in your prewriting exercise. You may want to refer to the notes you made during the clustering activity.

1. Draft research question: 2. Draft research question:

Next, exchange draft questions with a partner and review each other's work with the following checklist:

- ✓ Are the draft questions complex enough to require more than a *yes* or *no* answer?
- ✓ Did the writer state the question clearly enough that search terms can be identified?
- ✓ Are the questions specific and focused clearly on only one issue?
- ✓ Is the question answerable with research given the limitations of your assignment?

Now, revise your draft research questions using the feedback provided by your partner:

Working Thesis

Once you have a clear and specific research question, you are ready to take the next step in developing a *working thesis*: the controlling idea of a document stated in a declarative sentence and including the purpose and organization method of the document. Writers subscribe to a number of different approaches to this writing task: one simple way to proceed is to answer your research question in the form of an affirmative statement.

If you have developed an appropriate research question, you ideally will not already know how to answer that question without conducting further research: therefore, you must begin searching, collecting, and reading information now. Your working thesis is the answer you think you will find to the research question based on what you now know about the topic.

Sometimes this affirmative thesis statement is said to represent your *position* on the topic, and it presents the beginning of your main argument in a piece of writing. As you may be aware from working in other chapters of this text, the thesis itself is an argument, and it is supported by a series of arguments that make up an essay or other genre of academic writing. Review Figure 3 in the "Reporting Research Outcomes" chapter of this textbook for an illustration of the process to follow as you develop a working thesis based on a research question.

Activity C: Thesis Writing Practice

1. Watch this short video presentation to confirm your understanding of the parts and purpose of a thesis statement: https://www.youtube.com/watch?v=J5NLKGwVSRI

2. Choose one of the revised research questions you developed in Activity B. If you have not done your initial research yet, do that now so you can identify your position on the topic as you answer your research question with a *working thesis statement*:

3. Exchange draft thesis statements with a partner in class, and compare the drafts to the following checklist:

- ✓ Can you easily identify the specific *subject* the document will be about?
- ✓ Is the writer's *position* on the subject clear? Or, what is the *direction* of the discussion?
- ✓ Does the thesis suggest the main reasons (arguments) for the writer's position?
- ✓ Is the *organization* of the document indicated in the thesis statement?

For additional help writing thesis statements, refer to the *Structuring an Essay* section of the "Writing Essays" chapter of this textbook.

Outline for Successful Writing

Some students enter college writing courses having learned to *outline* as a way of starting writing projects. Some others have little or no experience with writing outlines. In the space below, reflect on your own experience with outlining as part of the writing process.

Discuss your understanding about outlining with your classmates and instructor. Is it something writers do as a first step? Is it important to complete your outline before you begin writing the document? Is there a set of rules writers should follow in creating outlines? Use the space below to comment on these questions and add any others that arise as you discuss outlines.

Completing an Outline Before Writing Begins

You may have learned that an outline is a framework for a writing assignment. Following that idea, then, you may want to build the framework of a paper before you apply the sheetrock and other building materials: that is, the detailed paragraphs. Sometimes teachers require you to submit a *complete sentence outline* for approval before you begin writing an essay or other document. If you have been successful in completing such an outline, you may have been taught to simply build a paragraph out of each main point or topic sentence you wrote in the outline. At the end of that process, you should have a complete and well-organized paper.

What do you think may be some problems writers encounter with this “outline first” method?

It may have been difficult to think of disadvantages or downsides to the “outline first” approach to writing, particularly if you value organization, efficiency, and control in your schoolwork. Recall the premise at the beginning of this chapter: writing is not a linear process, but a messy, recursive one. It involves moving around within the process, being flexible, and changing things in order to complete an organized, efficient, and clear final product. Take a look at this video for an introduction lecture by Dr. Jacob Lauritzen, Adjunct Professor at Eastern Arizona College.

Writing an Outline as Part of the Writing Process

The main reason for starting an outline as soon as you have developed a working thesis is so you have a clear focus point for *beginning* your research and writing. Some students find it is helpful to begin an outline by using a format similar to the example in Figure 1:

Introduction
Attention-getting remarks:
Background:
Working thesis:
Dog owners have less stress and better sleep than people who do not keep dogs as pets because Main Point 1 and Main Point 2; therefore, I advocate strongly in favor of Main Point 3.

Body Paragraphs
Main Point 1:
    Reason A:
        Evidence
    Reason B:
        Evidence:

Main Point 2:
    Reason A:
        Evidence:
    Reason B:
        Evidence:
Etc.

Figure 1. Sample outline format

You may have done enough early research to know what the main points would be in this example. Perhaps you could easily write the topic sentences, discuss the facts and reasons, and provide paraphrased evidence from the data you found in your research. In other cases, you may *not* yet know what claims to make in support of your argument and still need to do more research. Still another possibility: you may find as you conduct further research that you *change your mind* about your thesis completely. Whatever point you arrive at when you build the basic structure of your outline from the working thesis, recognize this fact: an outline works best when it is not a rigid structure for which a writer must find arguments and evidence that *fit.* Instead, the outline provides a writer with a tool to use in keeping track of the development of a piece of writing. Outlines are intended to maintain the framework of your writing: and sometimes that means new information changes the message.

The real strength of using outlining as a tool throughout the writing process, however, is evident when writers practice outlining as an ongoing activity rather than a discrete step. In his video lecture "How to Think About Outlining," instructor Kevin deLaplante (2015) explains it this way:

> In a real writing project of any significance or substance, you don't know in advance how the completed draft is going to look. You may start out with a plan, but almost always, that plan gets altered as you work your way through the piece.
>
> In other words, the outline itself is something that evolves over time.
>
> And this is the way it is for everyone. It's not a defect of your writing that the structure changes over time, it's a natural part of the writing process. Getting the structure of your essay right is an achievement; the process of writing is the means by which you discover and create this structure.

<u>So, when do I write an outline?</u>

As you learn the practice of technical writing, you are identifying and mastering skills that will help you communicate information to an audience in ways that will achieve your determined purpose. To a degree, when outlining and drafting, you are communicating with *yourself* about your own writing process. To better understand your own purpose and the message you are writing, try to begin outlining as soon as you have a working thesis. Remember, though, you must keep reviewing and revising your outline as new information and ideas come to light that refine or change the purpose and message of your writing.

Do you think outlines are always helpful or necessary? Why or why not? Explain your answer:

Write a Complete Draft

You may be wondering why you have done so much writing at this point in the chapter – but you still don't have a completed essay or report. Clearly, a writing process involves a good deal of notetaking, thinking, reviewing, reading, and writing before getting to the actual task of putting paragraphs together and creating a multiple-page piece of work. If you have worked through all the steps outlined in this chapter, however, you are likely to be ready to write that first draft. What follows are some points of advice for drafting a college-level document.

<u>To cite, or not to cite?</u>

The actual question is not whether to cite (yes, you have to cite). The question is *when* you should insert needed in-text citations. Some professionals recommend skipping in-text citations until the second round of drafting (that is, after most of the paragraphs are fleshed out). It is worth noting, however, that technical writing is the focus of practice in this chapter: and in order to be accurate and avoid misattributing information to sources, inserting in-text citations during the drafting process is strongly recommended. This point is especially important because most – if not all – of the source material technical writers use is integrated through paraphrasing rather than direct quotations. It is essential that writers provide appropriate and complete identification of sources in part because the line between original ideas and those that originated from research sources can easily become blurred. Cite sources at the same time you include them in a draft document for the best results.

<u>Is one really good draft enough?</u>

No.

Drafting refers to the act of writing the first and subsequent versions of a document; a *draft* is what writers call all iterations of the document up to the final version. University of Maryland, Baltimore Writing Center Associate Director Clancy Clawson discusses some methods of drafting (2015), explaining that *fast drafting* and *slow drafting* each can be useful for students:

- <u>Fast</u> drafting: a writer gets all their thoughts out onto a page as quickly as ideas will flow, writing without concern about wording. This method might involve notetaking by the writer to him/herself on the page about items that still need to be explored.
- <u>Slow</u> drafting: the writer's focus is on developing sentences and paragraphs with the understanding they will address wording and readability during editing.

Note that both methods require revision and editing. One common approach to drafting is to spend a prescribed period of time writing a slow draft, then setting the draft aside for a day before revising and editing. You will most likely find that errors previously unnoticed will be very evident after time away from the document. Additionally, taking a fresh look at your thesis statement and the arguments you drafted to support that thesis may help you bring sharper focus to what you really think and want to say in your document.

In short: the only real error you can make in drafting is submitting a first draft as a final version.

Chapter Conclusion

Technical writing is a clear, concise, complete, and correct result of a non-linear, messy process. Writing processes provide a path for students to travel as they follow ideas through exploration, development, and organization into a message. By employing a writing process, you may find the challenges of creating draft documents from rough ideas become an efficient and satisfying activity that boosts your confidence in your own ability to create and present an effective message.

Homework

Read the following excerpt from Kristin Milligan's essay, "Formal Outlines are Always Useful" (2017). Create an *outline* detailing the author's argument: refer to the handout "The Reverse Outline" in the "Writing Essays" chapter of this textbook for the steps to follow.

> In many classrooms around the country, students are handed assignment sheets that nicely detail what is expected of them as writers. Regardless of the genre, one (outdated) mainstay is the mandate for formal outlines. It's good for writers to collect their thoughts before jumping into the physical process of writing, and most people would agree with this concept, but unfortunately, not everyone thinks or writes the same way. As a result, formal outlines required at the beginning of the writing process may hinder creativity and progress. Even more likely, students write the mandated outline after the piece has been revised and edited, as a means of meeting the assignment requirements. Requiring students to create an outline as the first step of the writing process teaches them that writing is a linear movement, when in reality, it's actually recursive.
>
> There's an age-old argument among those in the composition field. Should teachers and writers be focused on the product or the process of writing? Writing can be understood in a variety of ways, but one consistent factor is the idea of planning before actually writing the intended piece. For quite a while now, this idea has translated to the mandatory inclusion of outlines as a means of helping students organize and develop their thoughts before writing a draft. In general terms, the use of outlines as a pre-writing strategy is thought to afford writers the ability to more cohesively structure their written work. While organization and form are

important aspects to the writing process, just because someone has organized ideas in a prefabricated and hierarchical form does not mean the actual writing is going to reflect this linear pre-writing strategy. For instance, one study concerning the behavior of good writers found that only one of the writers studied used anything close to what one could call an outline, but there were 14 other good writers in the study, too. Does that mean that the one student who used an outline is the best writer? How can teachers qualify writers' abilities and strengths, especially based on a linear document that vaguely represents a recursive process? This disconnect highlights a major gap in the understanding of how good writers compose texts.

Howard Gardner is well known for developing the idea of multiple intelligences (or the different ways that people learn, such as kinesthetically, visually, aurally, etc.). Through an exploration of multiple intelligences, it has been found that mathematically minded people are the ones who do their best work using outlines. One out of six intelligences prefers outlines, and yet in some classrooms, outlines are still a required part of writing assignments. Essentially, requiring students to create a formal outline for their written work excludes other valuable organizational strategies, such as mind mapping, picture drawing, and manipulating physical representations of ideas, such as rearranging Post-It notes on a whiteboard. Instead of only choosing a familiar and mandated organizational form, students should instead be allowed to use strategies that work best with their own intelligences to foster their growth.

Another reason mandatory outlines should be given their proper burial is that outlines seem to only serve students in a particular manner: organization. Students' final drafts are more organized when they use electronic outlining, but it doesn't help them in strengthening a paper's argument. In other words, outlines help students organize ideas, but don't help students develop those ideas. Furthermore, a study on how students use prior knowledge to develop new skills toward writing established that outlines alone don't help with student understanding. Ultimately, outlines make students focus on writing as a product instead of a process, even though they are meant to do the latter.

Even if students weren't required to create formal outlines, an organizational process would most likely be used in some manner, based on how people learn through observation of others' writing processes. Research highlights how students naturally use outlines as they fit into particular assignments. Not only do students have the ability to apply the concept of outlining when needed, they also marry this strategy with others that benefit them in the writing process. Even so, research shows that the use of outlines has no correlation with the success of student papers. So, it can be assumed that students have the capability of using an outline (in whatever form it may take) as it serves their writing purposes, but students should not be forced to use a pre-writing strategy that is inorganic to their writing process, such as a formal outline with Roman numerals, *a* and *b* subdivisions, and the like. When students only need to plug in information into an already established structure, they lose multiple opportunities to engage in critical thinking and development of their ideas.

In most cases, required outlines become a contrived formality, not a tool to help student writers succeed. Personal experience reminds us that students learn how to create outlines by being told what to do. (I can still hear my junior-year high school English teacher repeating to us that if our outlines "have an A they must have a B. If they have a 1 they must have a 2," as if this alone constituted pre-writing.) A more fruitful approach is to encourage students in their writing by allowing them to explore multiple writing strategies at every stage of the process. In doing so, there's the possibility that students' beliefs about their writing efficacy will increase because they will be focusing on what helps them develop their skills in writing and not their skills in following directions.

<u>Document Creation Technical Writing Assignment</u>

1. Identify a topic area you can explore that is acceptable to your instructor. Use the same processes you practiced working through this chapter on the general topic of Pet Owners, including: practicing prewriting activities; developing a research question; defining a working thesis; and drafting an initial outline.

2. Exchange outlines with a partner in class. Based on the information provided by your partner in his or her outline, review source materials and discuss the outline with your partner. Is the thesis clear and convincing? Can you suggest different or more specific arguments based on your understanding and research?

3. Together with your partner, write a report in the format and answering the questions specified by your instructor.

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Unit II: Writing Documents

Writing Sentences

Organizing Paragraphs

Using Appropriate Style and Language

Writing Sentences

Stacey Corbitt

Chapter Overview

Have you ever tried to use only complete sentences in a texting conversation with a friend? If you are seated in a diner and the server points at your soda glass and asks "Refill?" do you understand the exchange? Consider the context in which you have had these experiences and compare it to the context in which you operate as a technical writer. The gestures, facial expressions, and familiarity are typically not part of academic or professional writing – so the casual approach must give way to a formal and complete one to be understood.

One recent textbook, *Technical Writing Essentials: Introduction to Professional Communications in the Technical Fields* describes technical writing style this way: "Concise, clear, plain, and direct language; may include specialized terminology; typically uses short sentences and paragraphs; uses active voice; makes purpose immediately clear." (Last, p. 16) Keep this description in mind as you navigate this chapter and learn how important sentence-level skills are to technical writing.

This chapter aims to help you learn to write in – and edit for – concise, complete, clear, and correct sentences in formal documents with the goal of improving the audience's ability to understand and use those documents efficiently. You will develop accurate sentence construction skills, including ways to avoid or revise common errors; use correct verb tenses; and convert active/passive voice.

What are the important terms to review?

<u>Active voice</u>	Subject-predicate sentence construction in which the *subject* conducts the action described by the *verb*
<u>Comma splice</u>	Error when two independent clauses are joined in the same sentence by a comma without a coordinating conjunction
<u>Coordinating conjunction</u>	Joining words for use following a comma in a compound sentence; *FANBOYS* is an acronym that may be helpful: *F*or, *A*nd, *N*or, *B*ut, *O*r, *Y*et, and *S*o are coordinating conjunctions
<u>Oxford comma</u>	Comma included in a written list after the penultimate list item and before the conjunction linking the final list item
<u>Passive voice</u>	Subject-predicate sentence construction in which the *subject* receives the action described by the *verb*; often achieved by adjusting the prominence of the direct object

Run-on sentence	Error when two independent clauses are joined in the same sentence without punctuation or a coordinating conjunction
Sentence fragment	Error when a dependent clause or a phrase of any kind is punctuated as though it were a complete sentence
Subject and predicate	The subject is what or who the sentence is about; the predicate includes the verb and the remainder of the sentence
Subordinating word	Usually a conjunction, a word like the example *because* is placed at the start of a clause to show its relationship to the preceding or following independent clause; creates a complex sentence
Verb tense	Variations in verb forms intended to indicate *timing* of the action described by a verb; main divisions are past, present, and future tense

Sentence Construction

Writing complete sentences - whether simple, compound, complex, or compound-complex – is one significant skill practiced writers demonstrate. Similarly, good technical writers focus on being clear and concise, which may result in complete sentences that are shorter than those used by writers in other academic styles. Your challenge is to practice writing complete, clear, concise, and correct sentences and to explain the choices you make in constructing your sentences. In other words, it is important to have reasons for the words and construction styles in your technical writing. Gone are the days when "It just sounded good" is an answer.

University students learning introductory technical writing are expected to be familiar with the various fundamentals like the parts of speech; phrases and clauses; and distinctions between *independent* clauses and *subordinate* clauses. The idea, however, of writing short sentences that are also complex may at first seem counter-intuitive. For clarity, this section briefly explores the four sentence structures with examples. The following examples and explanations are adapted from Suzan Last's 2019 textbook, *Technical Writing Essentials: Introduction to Professional Communications in the Technical Fields* (Appendix E, pp. 247-249):

Simple Sentence

A sentence structured with one independent clause plus any number of phrases, such as:

- ✓ A simple sentence can be very effective.
- ✓ It makes one direct point.
- ✓ Is it good for creating emphasis and clarity?
- ✓ Too many simple sentences in a row can sound repetitive and choppy.
- ✓ Does varied sentence structure sound more natural?

Compound Sentence

A sentence structured with two independent clauses joined by one of the following combinations:

1. a *comma* followed by a coordinating conjunction;
2. a *semicolon* followed by a coordinating conjunction;
3. a *colon* followed by a coordinating conjunction; or
4. a *semicolon* or *colon*.

The clauses may not be joined by a comma without including a coordinating conjunction. By coordinating the ideas, you are giving them roughly equal weight and importance: see the following examples.

- ✓ A compound sentence coordinates two ideas, **and** each idea is given roughly equal weight.
- ✓ The two ideas are closely related, **so** you don't want to separate them with a period.
- ✓ The two clauses are part of the same idea**; thus**, they should be part of the same sentence.
- ✓ The two clauses may express a parallel idea**;** they might also have a parallel structure.
- ✓ You must remember to include the coordinating conjunction, **or** you may commit a comma splice.

Complex Sentence

A sentence structured with one independent clause plus at least one subordinate clause. The sentence may start with the subordinate clause that begins with a **subordinating conjunction**. This structure is used when the relationship between the clauses is such that one *depends on* the other to complete its idea.

- ✓ **When** you make a complex sentence, you subordinate one idea to another.
  (subordinate clause) , (independent clause)

- ✓ **If** you place the subordinate clause first, you add emphasis to the main clause at the end.
  (subordinate clause) , (independent clause)

- ✓ They decided to re-design the components **after** they discussed different options.
  (independent clause) (subordinate clause)

Compound-Complex Sentence

A sentence structured with at least two independent clauses and at least one subordinate clause. The compound-complex structure is more likely to confuse a reader, particularly in a technical document, because its length can diminish clarity. There are times, however, when an idea is difficult to explain or a process has multiple steps, and the compound-complex structure is preferred. Use compound-complex sentences only when they are the best choice for clarifying the ideas expressed by the clauses.

- ✓ I explain how or why something happened and I write a compound-complex sentence because it is easier to read than a numbered list.
- ✓ If writers want to use the compound-complex structure, they must recognize a dependent clause so they know where to place commas.

Sentence Construction Errors

Once you clearly understand the different possible sentence construction formats in academic and technical writing, you can easily recognize and correct errors by knowing the punctuation requirements for each sentence type. Consider the following additional details:

Construction type	Punctuation error	Correction measure
Simple sentence	Commas: used when not needed or missing when needed	Commas usually only appear to separate items in a list, after an introductory phrase, and in dates or addresses
Compound sentence	Comma splice – a comma between two independent clauses with no coordinating conjunction Fused or run-on sentence – two independent clauses with no punctuation between them	• Use a period or other end punctuation to make two simple sentences • Insert a coordinating conjunction after a comma between the clauses • Use a subordinating conjunction to make one clause dependent
Complex sentence	Commas: missing after an introductory subordinate clause Sentence fragment – often a subordinate clause ending in a period as if it were a complete sentence	Identify the subordinate clause: • if it is at the *beginning* of the sentence, use a comma at the end of this clause • if it ends in a period, revise by changing the period to a comma or remove the subordinating word
Compound-complex sentence	See those listed above	See those listed above

Verb Tenses

You already understand that verb tenses refer to the timing of the actions represented by verbs in your sentences. Careful sentence construction using the conventions provided in this chapter and in your grammar resources involves choosing verb tenses appropriate for the message you are writing. Nevertheless, college-level technical writing affords students with some new opportunities to make decisions that can improve writing ability, and mindful use of verb tenses is one of those potential improvements.

Think about what you know regarding past, present, and future tense in writing. Now, when you apply that knowledge to the practical genres you are writing in for your college coursework, it becomes important to think about the purpose of your document as you make tense choices. For example, consider the following situations alone or with a partner in class: try to determine whether your writing will use one of the past, present, or future tenses.

Activity: Construction Errors and Verb Tenses

Read and discuss the following scenario with your classmates as directed by your instructor.

1. You are conducting an experiment in biology lab. Your assignment requires that you take measurements at 10-minute intervals for a total period of one hour and record each set of measurements, including the times you take them, in your lab notebook. Assume for this exercise that each entry must be a complete sentence.

2. After you complete the experiment, your assignment requires you to submit a lab report that includes the following sections: *Purpose, Methods, Results,* and *Conclusion*.

Work with your partner or discuss the example in class. Remember you must maintain a consistent verb tense within sentences. In technical writing, however, the tense may shift from one section to the next, so think about each section in terms of whether you are reporting things you plan to do or things you have already done. In this way, you can plan for the appropriate tense to maintain within each section of a report or other writing.

Consider the two examples of tense shift errors shown in the first table below. The errors are presented in **bold** in the left column; the explanation of the errors is in the right column.

A sample of 100 participants **will be surveyed** and **have anonymized** collected responses for further analysis.	Illogical shift: verb tenses don't agree will be surveyed = future tense have anonymized = past tense
A sample of 100 participants **were surveyed**, and collected responses **are anonymized** for further analysis.	Illogical shift: verb tenses don't agree were surveyed = past tense are anonymized = present tense

The table below provides corrected versions of each example in the left column with explanations of the corrections in the right column.

A sample of 100 participants **will be surveyed** and collected responses **will be anonymized** for further analysis.	All verbs are future tense in this sentence. This construction is an example of how you might write the sentence in a *research proposal*.
A sample of 100 participants **were surveyed,** and collected responses **were anonymized** for further analysis.	All verbs are past tense in this sentence. This construction is an example of how you might write the sentence in a *research article*.

Use this link to learn more from the Penn State PubHub handout *Using the Correct Tenses.*

Now, prepare to respond to the following exercise as you consider the scenario continued below:

First, record the information required according to 1. in the previous text box. Remember you are writing down the measurements every 10 minutes, and each entry must be a complete sentence. What *verb tense* should you use? Choose the best option and be prepared to discuss your choice in class:

- At 12:20 p.m., the solution temperature **was** 115.4 degrees Fahrenheit.
- The solution temperature **is** 115.4 degrees Fahrenheit; the time **is** 12:20 p.m.

Next, complete the topic sentences for each section of the lab report. Select the *verb tense* that is appropriate for the purpose of the section. Recognize that some sections will discuss work you have completed, while other sections may discuss steps you still need to finish.

Purpose: *I (will conduct/am conducting/conducted) the experiment to determine whether hot water freezes faster than cold water.*
Methods: *In our lab work, my partner and I (will use/are using/used) the following tools: …*
Results*: After recording all temperature data, we (will find/are finding/found)….*
Conclusion: *Additional data (should be/is/was) collected next semester to determine….*

Active and passive construction – what's the difference?

Most commonly referenced as *active voice* and *passive voice* in relation to verb styles, these two types of construction affect the message in substantial ways. Put simply:

- In an *active* construction, the subject of a sentence is *performing* the action; while
- In a *passive* construction, the subject is *receiving* the action of the verb

Here is an example of an *active* construction:

- *The research team developed an idea, pursued a grant, and studied possible solutions.*

What makes the example *active*? The research team is the subject of the sentence, and it was (in past tense) *performing* the actions of the verbs: *developed, pursued,* and *studied.*

The difference when constructing the example statement in *passive* form is that the subject – *the research team* – becomes less prominent because it is no longer "doing" the actions described by the verbs. In fact, the research team is no longer even the subject of the sentence.

Here is the same statement in a *passive* construction:

- *An idea was developed, a grant was pursued, and then possible solutions were studied by the research team.*

Talk with a partner in class and compare these two sentences. Without determining which sentence is "better" or "correct," write down all the differences you identify:

Considering the length of each example sentence, which is the most *concise?* If *clarity* is increased by placing the most important information at or near the beginning of a sentence, how is the information affected by active or passive construction?

<u>Why change?</u>

One essential characteristic of a successful technical document is this: regardless of the complexity of the ideas discussed in a document, the writing makes the message clear. Often such clarity is accomplished through deliberate use of active constructions that:

- Place the subjects at the beginning of sentences
- Place the active verb near the subject that is performing its action
- Reduce the total number of words in sentences by simplifying verb constructs

Just as active sentence construction benefits technical documents, passive voice best serves the needs of some situations. According to Suzan Last (2019, p. 49):

> While the passive voice has a place—particularly if you want to emphasize the receiver of an action as the subject of the sentence, or the action itself, or you want to avoid using first person—its overuse results in writing that is wordy, vague, and stuffy. When possible, use the active voice to convey who or what performs the action of the verb.

Additionally, you may note passive voice is traditionally used in academic lab reports and other writing that may require a more formal tone or avoids first person voice. When passive voice is chosen in such cases, technical writing may lose some sharpness and be less concise.

<u>How to Convert</u>

Your previous training in writing, including the courses and lessons intended to prepare you for college, may have focused effort on using a formal tone and constructing lengthy passages and paragraphs. Students at the lower-division course level of college writing often focus on meeting minimum word counts and avoiding use of the first-person at all costs. However, as you learn to develop documents for use by other, non-academic audiences, some of those absolutes that were presented as rules must be reconsidered.

Recall that the *active voice* construction emphasizes the subject performing the action described by the verb in the sentence. *Passive voice* construction focuses attention instead on the action itself and makes the subject less prominent. Both constructions can be correct and appropriate in a piece of writing, but authors make choices based on the message they wish to convey with the sentence. Compare the following two sentences:

- *Lee Harvey Oswald assassinated President John Kennedy in Dallas, Texas.*

This active voice construction provides the subject (Lee Harvey Oswald) at the very beginning of the sentence, immediately following the subject with the action verb (assassinated). Active voice in this example helps make the meaning of the sentence and its emphasis clear: readers can quickly identify “who did it” and “what he did.”

- *President John Kennedy was assassinated in Dallas, Texas, by Lee Harvey Oswald.*

Do you notice how the emphasis changes when the sentence is structured with a passive voice? All the same factual information is present, but the significance of the murderer’s name is diminished by its placement at the end of the sentence. The construction is correct in form, and the focus becomes “who (the verb) happened to.”

Activity: Active/Passive Conversion

Work with a partner in class and refer to your textbooks for various other courses. Review the chapter summary at the beginning of a chapter you are currently studying in the other class. Discuss the following items with your partner for each of your book chapter summaries:

1. Who is the intended *audience* for the chapter summary you reviewed?
2. What is the author's *purpose* in writing the chapter summary?
3. Identify the *topic sentence* in each partner's summary paragraph. If the summary includes more than one paragraph, choose either the first or last paragraph for this exercise (whichever is longer). Write your responses below.

Discuss each topic sentence with your partner. Determine for each sentence whether it is currently written in *passive* or *active* voice. How do you know?

Rewrite each topic sentence in the space below:

- If the original is *active,* convert it to *passive* by revising it to make the original *subject* the receiver of the action in the verb.
- If the original is *passive,* convert it to *active* by revising it to make the *subject* prominent, followed closely by the verb clearly describing the action taken by the subject.

Finally, talk with your partner and compare the original topic sentences from the text to those you created in the previous step. Which sentences are clearer and more concise? As a reader and a member of the author's intended audience, do you think the author's choice of construction was appropriate? Why or why not?

Homework

Developmental Writing Assignment
(Adapted from Last, 2019 p. 250)

Combine the following pairs of sentences (1. and 2.) to make one sentence (3.) in which one idea is subordinate to the other. Notice the impression you convey by how you subordinate one idea to another. If your combined sentence was a topic sentence for a paragraph, what idea would the reader expect that paragraph to emphasize?

1. Energy drinks enhance awareness and energy level.
2. Energy drinks have negative health impacts.
3. ____

1. Smith's study found that energy drinks can increase athletic endurance.
2. The study also found that energy drinks can cause negative side effects such as headaches and "energy crashes", and can possibly lead to caffeine addiction.
3. ____

Submit your responses in the manner and form required by your instructor.

Technical Writing Document Creation Assignment
(Adapted from Last, 2019 p. 59)

1. Revise the following passage – so that it is roughly half its length and contains no more than ONE "to be" verb – by doing the following:

   - Create an effective topic sentence for this paragraph that clearly indicates what the paragraph is about
   - Cut unnecessary words and phrases; eliminated repetition (look carefully for these!)
   - Combine and connect sentences logically; use effective transition words
   - Eliminate as many 'to be' verbs as possible (highlighted)
   - Eliminate sentence structure and usage errors (underlined)
   - The chapter "Using Appropriate Language and Style" may also be helpful

Energy Drinks are able to be consumed in many varied and different ways by people all over the world. Moreover, drinking these energy drinks is able to provide people in today's society with the helpful benefits of increased awareness and energy. Besides, even though there are enhancements that may be present from drinking an energy drink, the negative side effects are posing more of a threat to a person than the energy boost that is able to be achieved. In a survey that was taken in the United States at an American university, it was reported that fifty one percent of participants were consuming greater than three energy drinks each month in the semester (Jones, 2016). Looking at this statistic, it can be seen that a majority of students in university are drinking energy a large amount of drinks on a very regular basis. Which can be the cause of some health problems experienced by students. In the same study, it was also shown that energy drinks are capable of helping to increase energy and athletic endurance; for those who drank it. Despite the fact that there are some benefits to be had from drinking energy drinks, there is the problem of the negative side affects that are caused by the drinking of these energy drinks. However, the side affects that were commonly reported in the study are: headaches, and "energy crashes" (Jones, 2016). Being a potentially more severe problem than the minor problems of headaches and "crashes;" there is definitely the possibility of people which are becoming addicted to caffeine.

(260 words)

2. Write a memo to your instructor discussing the revisions you made in this exercise. Include your rewritten version as an attachment to the memo and explain both the *methods* you used in deciding how to revise; and the *results* you found that will help you revise your own writing to employ active construction going forward.

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Organizing Paragraphs

Dawn Atkinson

Chapter Overview

This chapter reviews the fundamentals of sentence construction since fluid sentences establish the foundation for strong paragraphs. It also aims to help you understand how to construct well-organized paragraphs and emphasizes the benefits of such paragraphs to readers. Although conventions for paragraph development differ amongst genres and types of writing (for example, journalistic writing versus creative writing), this chapter focuses on general guidelines for writing paragraphs that feature in technical and academic documents.

Thoughtfully Constructed Sentences: The Building Blocks of Effective Paragraphs

Paragraphs are composed of sentences that can be categorized according to type—simple, compound, complex, and compound-complex—and you can combine these sentence types in any number of ways to add variety and interest to your writing. The following list, which is adapted from Lambert (2019a) and Last (2019, p. 247), overviews these sentence types.

- A **simple sentence** consists of one independent clause (a subject + a verb + a complete thought).
  - Example: The Mars rover detected gas.
  - Example: The engineers stood around the table looking at the schematics for the machine.
- A **compound sentence** contains two independent clauses usually joined together by a comma and a FANBOYS coordinating conjunction (*for*, *and*, *nor*, *but*, *or*, *yet*, *so*) or a semicolon and a conjunctive adverb (e.g., *moreover*, *then*, *otherwise*, *nonetheless*, *however*, *nevertheless*, *furthermore*, *also*, *indeed*, *consequently*, *likewise*, *hence*, *additionally*, *similarly*, *thus*, *therefore*).
  - Example: The Mars rover detected gas, and this discovery may be evidence of life on Mars.
  - Example: The engineers studied the machine schematics in some detail; then, they decided to redesign the components.
- A **complex sentence** contains an independent clause and at least one dependent clause (a clause that begins with a subordinator like *although*, *even though*, *before*, *after*, *despite*, *while*, *if*, or *because* and does not express a complete thought).
  - Example: Previous research has shown no evidence of life on Mars even though the Mars rover detected gas.
  - Example: After the engineers discussed different options, they decided to redesign the components.

- A **compound-complex sentence** contains at least two independent clauses and at least one dependent clause.
  - Example: Even though previous research has shown no evidence of life on Mars, the Mars rover detected gas, and this discovery has prompted a renewed focus on the red planet.
  - Example: The engineers stood around the table looking at the schematics for the machine, and after they discussed different options, they decided to redesign the components.

Use a variety of these sentence types in your documents to strengthen your style and encourage reader interest in your text.

Now that you have read through descriptions and examples of the different sentence types, identify the following sentences, which are adapted from Lambert (2019b, p. 1), as either simple, compound, complex, or compound-complex. Be prepared to discuss the rationale for your answers in class.

1. Biomedical engineers created the first bionic arm.
2. By operating motors and pulleys, users of the bionic arm could actually grip onto items.
3. Mechanical hearts can replace natural hearts, providing evidence that biomedical engineering can save lives.
4. As humans age, gravity compresses the spine, so biomedical engineers are working on ways to regenerate spinal discs.
5. Anthracite is unique to Pennsylvania, and it is the hardest coal.
6. Many chemical engineers work for public universities, while others put their abilities to use in the private sector.
7. The Great Lakes contain over 20 percent of the earth's freshwater supply.
8. Although deliberate practice may be central to developing writing expertise, it requires concerted focus for prolonged periods of time; thus, deliberate practice can also induce fatigue.

Cogent Paragraphs Contain Correctly Formed Sentences

Regardless of what types of sentences you compose, make sure they are formed correctly so your paragraphs are logical, functionally sound, and comprehensible. Most workplace readers will not attempt to decipher paragraphs peppered with errors; furthermore, sentence faults can distract readers from content and call into question a writer's level of literacy, dedication to the writing task at hand, and editing skills. To encourage effective sentence and paragraph construction, let us review three common types of sentence faults to avoid—fragments, comma splices, and run-ons—using information adapted from Student Academic Success Services, Queen's University (2018).

<u>Sentence Fragments (Incomplete Sentences)</u>

A *sentence* (1) contains a subject and a verb and (2) communicates a complete thought. For example, the sentence "Rob worked as a library aide at Best University" consists of a subject (Rob) and a verb (worked) and expresses a complete thought. In contrast, a *sentence fragment* is missing one or more of the necessary elements listed but is nevertheless punctuated as a sentence. Here is an example of a sentence fragment.

- Rob enjoyed his time at Best University. When he worked as a library aide.

Although the first sentence comprises all the necessary elements to be complete, the second sentence contains a subject (he) and verb (worked) but does not express a complete thought; thus, it is a fragment. To eliminate the fragment, combine it with the preceding sentence.

- Rob enjoyed his time at Best University when he worked as a library aide.

Avoid sentence fragments by composing full sentences that contain subjects, verbs, and complete thoughts.

Comma Splices

A *comma splice* occurs when a writer combines two complete sentences together and only uses a comma to join them. Here is an example of a comma splice.

- The team delivered a successful presentation, it required considerable planning and preparation.

This type of sentence fault can be corrected in several ways, as illustrated here.

- The team delivered a successful presentation. It required considerable planning and preparation. → Replace the comma with a period
- The team delivered a successful presentation; nonetheless, it required considerable planning and preparation. → Replace the comma with a semicolon + conjunctive adverb + comma
- The team delivered a successful presentation; it required considerable planning and preparation. → Replace the comma with a semicolon (a semicolon can function on its own to connect two closely related sentences)
- The team delivered a successful presentation, but it required considerable planning and preparation. → Add a FANBOYS coordinating conjunction (*for*, *and*, *nor*, *but*, *or*, *yet*, *so*) after the comma
- Although the team delivered a successful presentation, it required considerable planning and preparation. → Restructure the sentence by adding a subordinating word to transform one part of the sentence into a dependent clause

Avoid comma splices by remembering that a comma is not on its own a strong enough mark of punctuation to combine two complete sentences.

Run-On Sentences

A *run-on sentence* occurs when a writer combines two or more complete sentences together without using punctuation to separate them. Here is an example of a run-on sentence.

- Ali applied for several jobs he eventually secured a position with XYZ Company.

Like a comma splice, this type of sentence error can be corrected in various ways, as the following examples demonstrate.

- Ali applied for several jobs. He eventually secured a position with XYZ Company. → Separate the sentences with a period
- Ali applied for several jobs; however, he eventually secured a position with XYZ Company. → Separate the sentences with a semicolon + conjunctive adverb + comma
- Ali applied for several jobs; he eventually secured a position with XYZ Company. → Separate the sentences with a semicolon

- Ali applied for several jobs, and he eventually secured a position with XYZ Company. → Separate the sentences with a comma + a FANBOYS coordinating conjunction (*for*, *and*, *nor*, *but*, *or*, *yet*, *so*)
- After Ali applied for several jobs, he eventually secured a position with XYZ Company. → → Restructure the sentence by adding a subordinating word to transform one part of the sentence into a dependent clause

By recognizing what constitutes a complete sentence—a subject, verb, and complete thought—you can avoid run-on errors.

Using the information you read, practice identifying sentence faults by labeling the following items, which are adapted from Sweetland Center for Writing, University of Michigan (2020), as fragments, comma splices, or run-ons. Afterwards, resolve the errors by employing one of the methods described previously. Be prepared to discuss the rationale for your corrections in class.

1. Scholars argue about the veracity of this claim this paper will defend it.
2. The experiment was a success, my lab partners and I were pleased with the results.
3. Mining engineers interpret the evidence one way environmental restoration specialists take a different view.
4. When class began. The students took notes.
5. My library research identified three helpful articles, I will use them as evidence in my argument paper.
6. He began writing his assignment Thursday night. Although it was due on Friday.
7. This research method has some advantages other methods are less promising.
8. The nursing program required students to demonstrate sustained commitment to excellence therefore Genevieve worked diligently on her coursework every semester.

Paragraph Functions

Paragraphs exist to help readers navigate documents and understand connections amongst ideas. Even the visual look of a page divided by paragraphs helps readers immediately grasp that the writer has chunked ideas about a topic in certain ways. The term *white space* refers to areas of a page that are free from text and images, and writers use it to signal where one paragraph ends on a page and the next begins. For example, when composing an essay, a writer will typically be expected to indent essay paragraphs; in this case, the indentation is achieved by inserting white space before the start of each paragraph to signal the paragraph's beginning. In comparison, when composing an email or a memo, a writer inserts one blank line of white space in between paragraphs instead of indenting them. Again, this white space helps readers see paragraph boundaries and the segments of text that comprise the document.

The Purpose and Structure of Body Paragraphs

Body paragraphs, which are located between the introduction and conclusion sections of a document, each focus on one central idea. This singular focus helps readers organize the meaning of the document by concentrating on one point at a time. A writer achieves this focus by stating the central idea of a body paragraph in a *topic sentence*: a sentence that is neither too detailed nor too general that introduces readers to the main theme of the paragraph. Every other sentence in the paragraph should relate to the theme introduced in the topic sentence so readers can concentrate on that one theme.

Reflective of the overall structure of a document, each body paragraph should also relate to the central theme or idea expressed in a text, which is articulated in the introduction, by supplying information, explanation, and examples until the theme is fully developed. Hence, a document's organizational structure operates at both the paragraph- and whole-text level.

Since technical writing prioritizes ease of use in document construction, writers are encouraged to foreground main points by placing topic sentences at the beginnings of their body paragraphs. This type of construction enables a reader to grasp the key takeaway of a body paragraph early on when reading. After introducing the main theme in a topic sentence, a writer then expounds upon the theme in the rest of the paragraph's sentences by providing reasons, explanations, examples, and evidence. The text in Figure 1, which is adapted from the Writing and Communication Centre, University of Waterloo (n.d.-b, "Sample Paragraph with Good Flow"), demonstrates this approach to body paragraph construction.

The intense controversy over rent control has also resurfaced in New York City as the current regulations are set to expire in five months. One group that favors rent control is the Community Service Society of New York (CSSNY), which maintains that controls benefit both tenants and landlords. This social service group recently released a report to "dispel several myths" about rent control and convince policy makers to keep current regulations in place (Wiltz, 2020, p. 1). In its report, CSSNY asserts that rent control does not limit housing stock in the city (p. 4). The group also claims that, contrary to popular belief, many New York City residents live in crowded conditions even if they have rent-controlled apartments (p. 6). In addition, rent control does not harm most small landlords, according to CSSNY, because they typically do not own buildings with rent-regulated units (p. 8). In the group's opinion, these three myths suggest that rent controls are good for both tenants and landlords. Parts of CSSNY's argument are troubling, however, since the group's evidence is primarily anecdotal rather than data-driven. In addition, in another report, the pro-landlord Rent Stabilization Association (2020) challenged the idea that landlords are doing well under the current policy and offered statistics that refute what the CSSNY claims. With so many conflicting interests, it can be difficult to determine the true value and cost of rent control for different stakeholders.

Figure 1. A body paragraph that begins with a unifying topic sentence

The topic sentence in Figure 1 functions as a unifying element since all the other points in the paragraph relate to it.

In technical writing, a topic sentence unambiguously conveys the focus of a paragraph. To this end, a topic sentence might take one of several forms, as the following list, which is adapted from Schall (2014a), explains.

- A topic sentence may provide a general statement for the paragraph to support.
    - Example: The role of coal in the hydrology of strip mines has received little attention in the scholarly literature. Most groundwater analyses of potential or current strip mines instead focus on…
- A topic sentence may initiate a list of examples or explanations.
    - Example: The real-time information supplied by a measurement-while-drilling system offers several advantages. The first advantage is…
- A topic sentence may signal forthcoming illustration or in-depth discussion of a subject.
    - Example: Three points about the geologic activity of wind and the development of landscapes in dry lands are relevant here. First…

- A topic sentence may supply background on a subject, leading into a discussion of the subject.
    - Example: Ceramic tubes are now being used in the most aggressive environments. In industry…

These types of topic sentences communicate key points to readers in a straightforward and efficient manner.

In addition to beginning a paragraph with a clear topic sentence, a writer might also decide to use a concluding sentence at the end of a body paragraph that contains several examples and pieces of supporting evidence to help remind readers of the paragraph's key takeaway. This technique employs purposeful repetition of main points to build unity in the text. When using this technique, an author rephrases the paragraph's central idea without repeating its topic sentence. Alternatively, the writer might use a concluding sentence to link to the next body paragraph. In either case, the author may use signaling language, such as *in summary*, *overall*, *in conclusion*, *in short*, *finally*, *in brief*, or *to conclude*, to indicate the intention to conclude.

The Purpose and Structure of Introductions

An introduction indicates the subject of a piece and helps guide readers through the document. Because of its placement at the beginning of a text, a well-organized and clear introduction can encourage readers to explore other parts of the document.

Depending on the length of a document, an introduction may be one or more paragraphs long; however, regardless of length, introductions in many technical and academic texts reflect similar features and structural components. The following is a list of general steps for writing an introduction. Notice that the list is numbered, which indicates the steps proceed in a sequential order.

1. Establish context for readers by conveying the subject of the piece and supplying background information: for example, an overview of the theory that will be addressed in the text to follow, a history of events to do with the document's topic, or definitions of key words that will be discussed.
2. Communicate the purpose of the text. For example, what does the document show, and what are the conclusions? When writing an argumentative paper, state your position. In other words, provide a *thesis statement* that introduces the paper's topic plus your position on it.
3. Indicate your approach or define the text's scope (say what it will cover and in how much detail). **→ Note that steps 2, 3, and 4 may sometimes be combined to avoid unnecessary repetition.**
4. Forecast the content of the document and its organization. This part of an introduction is sometimes referred to as a *route map*.

Figure 2 provides an example of these structural elements at work in a memo introduction. Companies and organizations use memos for internal communication, as the sample memo illustrates.

MEMORANDUM

To: Maria Sanchez, Chair of the Campus Space Committee
From: Rodger Smith, Writing Professor
Date: February 1, 2020
Subject: Proposal to Create a New Multi-Use Teaching Space in Legacy Hall

Context-setting information

Purpose

Existing classroom space at Achievement University and the current furniture arrangement in some classrooms present course scheduling and student accommodation challenges. To address such challenges, this memo proposes creating a multi-use teaching space in Legacy Hall in the area currently occupied by the tutoring center once that office moves to the new Study Support Center in the Milner Building. This document explains the rationale for the space conversion, the plan for undertaking it, how much the project will cost, and how it will benefit Achievement University's campus community.

Scope and route map

Figure 2. An introduction that provides context-setting, purpose, scope, and route map

Although this introduction structure works for many types of lengthy and involved documents, such as memos, letters, essays, and topic proposals, in a short text, such as an email, a writer may sometimes only need to provide context and purpose for the message, as the example in Figure 3 illustrates.

Dear Dr. Wang,

Context

Purpose

As a follow-up to our conversation yesterday regarding travel to the ABC Conference, I attach receipts for all expenses so that you may complete the appropriate travel reimbursement forms. Please let me know if you have any questions about the attached.

Sincerely,
Sally Student

Figure 3. An email that indicates context and purpose for the message

If you are not sure how much information to include in an introduction, think about what your readers will need to understand the rest of the document. You can then use the steps provided to structure your text.

Also be aware that a different introduction structure may be used in reports of research studies: this is the Create a Research Space (CaRS) Model identified by linguist John Swales in his 1990 book *Genre Analysis: English in Academic and Research Settings*. This type of introduction outlines a research study by supplying background on the topic of investigation, discussing gaps in the current research landscape, and identifying how the study addresses those gaps. In the CaRS introduction structure, these three items are identified as *moves* that help to contextualize the study for readers by explaining what motivated it. Using information adapted from the Writing and Communication Centre, University of Waterloo (n.d.-a), Figure 4 explores these moves in greater detail.

Move 1: Establish a Research Territory – The research territory is the context required to understand and conduct the research. The goal is to explain the current state of scholarship in the field and say why the general research area is important.

Language for Establishing a Research Territory

- __________ has been extensively studied...
- Interest in __________ has been growing...
- Recent studies have focused on...
- __________ has become a major issue...

Move 2: Establish a Niche – The niche is the reason for the research. It helps readers understand how the study relates to the background provided by highlighting gaps/problems in current knowledge that justify or explain the need for further investigation.

Methods for Establishing a Niche

- Make a counter-claim (something is wrong)
- Indicate a gap (something is missing)
- Raise a question or make an inference (something is unclear)
- Continue a tradition (by adding something)

Language for Establishing a Niche

- Previous studies of __________ have not examined...
- Such studies are unsatisfactory because...
- One question that needs to be asked, however, is...
- Research on __________ has mostly been restricted to _________ so...

Move 3: Occupy the Niche – This step explains how the study responds to the need for further investigation identified in the previous step and lists specific research objectives, questions, or methods.

Strategies for Occupying the Niche

- Outline purpose(s) of the research
- List research questions or hypotheses
- Announce principal research findings
- Indicate the structure of the research process

Language for Occupying the Niche

- The purpose of this literature review is to...
- This study aims to...
- The evidence collected from this study demonstrates...
- This review outlines/examines...

Figure 4. An outline of the Create a Research Space introduction structure

Figure 5, an introductory paragraph adapted from the Writing and Communication Centre, University of Waterloo (n.d.-a, “Example”), demonstrates the CaRS move structure at work in a research paper.

Move 1. Stress is an ever-present factor in the lives of university students, many of whom have difficulty regulating stress and functioning to their fullest potential. Some individuals listen to music as a means to alleviate anxiety, and both physiological and self-perception studies have investigated this approach to stress relief. Listening to music decreases physiological stress by indirectly decreasing cortisol levels (a hormone linked to high stress levels) through a down-regulation of the Hypothalamic-Pituitary-Adrenal (HPA) Axis (Linnemann et al., 2015). Studies investigating self-perceived stress levels using data gathered through participant self-reports found that listening to music with the goal of relaxation is significantly more effective than listening to music for the purpose of distraction (Linnemann et al., 2015). **Move 2**. While the positive relationship between music listening and stress relief has been supported within the general population, little research has been done to examine music’s effect on the mental health and stress levels of university students in particular. University students exhibit a higher rate of both stress-induced depression and anxiety than the general population due to the pressures of completing complex programs while often living away from home for the first time (Hanser, 1985, p. 419; Regehr et al., 2013). As a result, student stress relief is a critical part of ensuring student wellbeing, especially with mental health at the forefront of many recent discussions among university faculty, staff, and students. **Move 3**. This investigatory survey is the first step in a multistage study on how undergraduate residents at Conrad Grebel University College use music in response to stressful situations and how stress relief through music listening is perceived. We hypothesize that students will identify stress relief as one of the primary reasons they listen to music and that they will report choosing music they enjoy when they need to relieve stress. We will use patterns observed in student responses to formulate specific research questions for further investigation. Ultimately, the research on student stress relief could help to inform university policy makers about ways to create healthier campuses.

Figure 5. An introductory paragraph that follows the CaRS Model

You may encounter the CaRS introduction structure when reading *journal articles*, published papers that communicate research results and developments within scientific and other fields of study, or you may be asked to use the structure when reporting on your own research.

The Purpose and Structure of Conclusions

A conclusion brings unity to a document and should follow naturally from points that have been discussed previously in a text. For these reasons, do not introduce new ideas into a conclusion.

As is the case for an introduction, a conclusion may be one or more paragraphs long depending on the overall length and complexity of the accompanying document. Although conclusion components vary by document type, the following list presents general steps for constructing a conclusion. Note that authors may sometimes combine the steps when writing conclusions.

1. Supply a summary of your main ideas or findings to reinforce the document's key message. When writing an argumentative paper, reiterate your thesis.
2. Discuss how your findings compare with other investigations, or point out the implications of your findings (in other words, say what the findings mean and why they are important)—if appropriate.
3. Consider the limitations of your work or unanswered questions arising from your research—if appropriate.
4. Make recommendations—if appropriate—suggesting possible directions for a project or for further research, for example.

At a minimum, a conclusion should contain a summary of the central points discussed in a document (step one), again to help unify ideas for readers and emphasize the principal message of the piece. Figure 6 exemplifies this conclusion structure.

The Central Role that Writing Skills Play in Business

To bring this document to a close, during my informational interview with a marketing specialist, I discovered that proficient writing skills are vital to success in business environments and that a precise writing approach and professional tone can be used to deliver needed information to clients in an efficient and direct manner. In contrast, spelling mistakes and other communication errors may lead to substantial financial losses and affect career opportunities. Anyone who wants to pursue a career as a marketing specialist should therefore develop excellent writing capabilities.

Summary of central points

Emphasis placed on principal message

Figure 6. A conclusion that summarizes main ideas and reinforces a key message

In comparison, documents that report on research studies oftentimes use all four conclusion steps. Journal articles, for example, typically contain all four steps. Figure 7, a conclusion from the computer science journal article "Machine Learning with Remote Sensing Data to Locate Uncontacted Indigenous Villages in Amazonia" (Walker & Hamilton, 2019, "Conclusions") incorporates the four steps. Although you may not understand all the *jargon* in the extract—the specialized language or terminology used in a particular field of study or workplace environment—notice how the conclusion steps unfold in the sample.

CONCLUSIONS

A dozen easily obtainable remote sensing measures allowed our random forest algorithm to successfully classify uncontacted versus contacted villages. Extending the algorithm to make predictions in a grid search greatly accelerates our ability to find and identify the locations of uncontacted villages. Moving forward we anticipate using an even lower cutoff value because the decreasing costs in satellite imagery make false positives from a more sensitive algorithm relatively cheap to evaluate and discard. We anticipate that this method will become the primary means by which to track and locate these same uncontacted villages, as well as undiscovered locations of uncontacted villages.

Summary of findings

Implications of the findings

One shortcoming of our classification model when applied to searching through unlabeled satellite imagery is that it was not designed to classify natural landslides, windfalls, or riverbank clearings. All of these natural processes also create deforestation signatures that further complicate our searches. Future work could well include these, but in the meantime we filter our predictions based on cleared area because natural clearings tend to be less than 0.5 ha while most uncontacted villages have larger areas than that.

Limitations of the study and recommendations for future work

Our research is vital and timely as isolated groups are among the last remaining small-scale subsistence populations living in a traditional lifestyle. The enormous and mounting pressure from external threats [creates] the possibility that isolated populations will disappear in the near future. Better monitoring and tracking with remote sensing are tools that might provide more informed conservation decisions concerning increased protection and land rights for the world's most critically-endangered human cultures.

Implications of the research (underscoring why it is important)

Figure 7. An extract from a journal article that incorporates the four conclusion steps

Conclusions that request action on the part of a reader may deviate to some degree from the list of elements presented by first reinforcing the key message of a document through a summary of main ideas before ending with a call to action, or a goodwill statement, or both. Figure 8 provides an example of this type of conclusion.

In conclusion, this document proposes converting the area in Legacy Hall currently occupied by the tutoring center into a multi-use teaching space. The conversion discussed herein would help demonstrate Achievement University's commitment to student-focused instruction and an inclusive, accessible campus culture. Although the completion of the Study Support Center in the Milner Building will almost certainly help to promote such a commitment, this proposal focuses attention on another area of campus to help ensure that space and design needs are met.

Summary of main ideas and call to action

Thank you for considering this proposal. I look forward to discussing the idea with the Campus Space Committee at its next meeting.

Goodwill statement

Figure 8. A conclusion with a summary of main ideas, call to action, and goodwill closing

The purpose, audience, context, and genre for a document will suggest which conclusion structure is appropriate. If you are still unsure which structure to use in an assignment after considering these elements, discuss your questions with your instructor.

Cohesion and Coherence in Paragraphs

Although we have said that a document's organizational structure operates at both the paragraph- and whole-text level, the unity of sentences and paragraphs does not happen by accident. Instead, writers must attend to cohesion and coherence in their documents to ensure they flow together in an easy-to-understand way. *Cohesion* refers to links within and among sentences that establish clear connections for readers (Min, n.d., para. 1), and it is achieved by combining words and punctuation so sentences and paragraphs logically and grammatically fit together. *Coherence*, or the overall correlation between ideas in a document, centers on the larger communicative facets of writing: for example, on composing topic sentences that relate back to a thesis statement; on developing an argument that clearly links evidence and reasons to viewpoints; and on integrating source material ethically and seamlessly into text (Min, n.d., para. 1). Cohesion and coherence should operate in tandem in a document so that readers can follow its logic without difficulty.

<u>A Variety of Cohesive Devices</u>

Practical devices, such as those presented here, can be used to achieve cohesion and coherence in writing.

- *Transitions* are linking words that connect ideas at the sentence or paragraph level.
- Purposeful repetition of key ideas and words underscores their importance to the meaning of a document.
- *Parallel structure* creates connections by maintaining the same grammatical structure throughout items in a sentence, series, list, or set of headings.

- A *semicolon* joins closely related ideas.
- A *colon* signals an association between the language that precedes the colon and the language that follows it.
- *Dashes* link and emphasize related ideas in a text.
- *Parentheses* surround explanatory text. Since the text in parentheses expounds upon something mentioned in the sentence, the parentheses indicate a link between sentence elements.
- A *synonym* is a word with the same meaning as another word. Synonyms can be used to emphasize important ideas without repeating individual words.
- An *antonym* is a word opposite in meaning to another word. Antonyms can be used when contrasting things, to establish a connection between differing ideas.
- A *pronoun* is used as a stand-in for a previously mentioned noun. An *antecedent* is the person, place, or thing (the noun) to which the pronoun refers.

Use an assortment of these devices to establish connections and infuse variety into your text.

<u>Appositives as Cohesive Devices</u>

An appositive is another cohesive device you may decide to employ. An *appositive* is a noun or a phrase containing a noun that adds identifying details to a previous noun. The following sentence contains an appositive: Marcus Riley, **an innovative researcher**, designed the experiment. Because the appositive supplies additional information about the noun, it establishes a link in the sentence and can be thought of as a cohesive device.

<u>Stylistic Techniques as Cohesive Devices</u>

Stylistic techniques can also be used to establish connections within sentences and paragraphs. The following list, adapted from Schall (2014b), explains this point in further detail.

- Link the subjects of juxtaposed sentences.
    - Example: To heat the sample, tungsten-halogen lamps are used below and above the fused silica tube. These lamps contain a tungsten filament and bromide gas inside a quartz bulb. By resistive heating alone, the lamps can attain temperatures of 300°C to 400°C.
- Link the end of one sentence to the beginning of the next sentence.
    - Example: The film is not completely oriented in a single direction, and the system includes a number of entanglements. These entanglements become frozen into position as the film crystallizes.
- Link sentences through implicit similarity, repetition, contrast, or causality.

- Example: When a person views an object initially as a circle, that image becomes imprinted on the brain. Even when the eye and brain can distinguish an ellipse from the circle, memory tricks the subject into seeing a circle.
- Example: The addition of oxygen promotes soot formation, particularly at low temperatures. On the other hand, oxygen also removes aromatic rings and active intermediates by oxidation, thus suppressing soot formation at high oxygen concentrations.
- Example: Because the wire is flexible, the sonde can rely on its own weight to pull it down the hole, essentially doing a free fall. Therefore, the sonde tends to get stuck easily in highly deviated holes.

- Establish a particular order and then follow through with that order.
    - Example: Norris describes three forms of exit morphology. In the first form, development has spread to both sides of the intersecting road, but is still limited to one side of the interstate. In the second form, development exists on both sides of the highway. In the third form, which Norris labels full development, services are located along both sides of the intersecting roads and along ancillary feeder roads.

These stylistic techniques can be used to create sentence variety and compelling connections in written text.

Practice identifying the various cohesive devices discussed by underlining or circling them in the following text, which is adapted from McCulloch (2012, pp. 56-57). In addition, identify the types of cohesive devices used by writing your answers in the margin.

> The problem with excessive quoting in writing is that, unless it is done skillfully, quoting can limit the extent to which ideas can be re-contextualized for a new purpose. Writers should not simply reproduce and report source material; instead, they should reshape it to fit their own unique arguments. This re-shaping can be accomplished more effectively through paraphrasing or summarizing than by quoting directly. Many teachers thus prefer that students paraphrase sources when possible. Quoting is not always discouraged, however. Citation norms, including the amount of direct quotation that is

considered acceptable, vary from discipline to discipline (Hyland, 1999), and composition scholars routinely analyze how writers in various fields employ quotations when producing texts.

Lack of source evaluation can also be problematic in student writing. A common complaint about novice writers is that they attribute too much authority to their sources and fail to take a sufficiently evaluative stance toward them (Pecorari, 2003; Petrić, 2007; Thompson, 2005). As a result, learners may produce texts that rely heavily on others’ viewpoints rather than producing cogent arguments of their own.

Use Cohesive Devices Carefully

When using any of the cohesive devices discussed, the key is to think carefully about how they help readers follow a text and grasp its meaning. In the case of transitions, for instance, select appropriate ones that convey your intended message. Surprisingly, a one-word transition can change the meaning of a text, as the following examples demonstrate.

> Do-It-Right Power estimated the solar conversion would take eight weeks. **Consequently**, the firm was hired to complete the project.

> Do-It-Right Power estimated the solar conversion would take eight weeks. **Regardless**, the firm was hired to complete the project.

In addition, transitions should not be inserted artificially into a document in an attempt to create linkages; if the relationship between ideas is already clear, transitions are not necessary. Consider, for instance, the examples in Figure 9, which are adapted from Babin et al. (2018, p. 70): the first example contains an excessive number of transitions, some of which confuse meaning, while the second uses just enough transitions to aid reader understanding.

Example One: Uses Too Many Transitions

The Impressionist painters of the late 19th century are well known for their visible brush strokes, for their ability to convey a realistic sense of light, and for their everyday subjects portrayed in outdoor settings. In spite of this fact, many casual admirers of their work are unaware of the scientific innovations that made it possible for this movement in art to take place. Then, in 1841, an American painter named John Rand invented the collapsible paint tube. To illustrate the importance of this invention, pigments previously had to be ground and mixed in a fairly complex process that made it difficult for artists to travel with them. For example, the mixtures were commonly stored in pieces of pig bladder to keep the paint from drying out. In addition, when working with their palettes, painters had to puncture the bladders, squeeze out some paint, and then mend the bladders again to keep the rest of the paint mixtures from drying out. Thus, Rand's collapsible tube freed the painters from these cumbersome and messy processes, allowing artists to be more mobile and to paint in the open air.

Example Two: Uses Subtle Transitions to Encourage Reader Understanding

The Impressionist painters of the late 19th century are well known for their visible brush strokes, for their ability to convey a realistic sense of light, and for their everyday subjects portrayed in outdoor settings. However, many casual admirers of their work are unaware of the scientific innovations that made it possible for this movement in art to take place. In 1841, an American painter named John Rand invented the collapsible paint tube. Before this invention, pigments had to be ground and mixed in a fairly complex process that made it difficult for artists to travel with them. The mixtures were commonly stored in pieces of pig bladder to keep the paint from drying out. When working with their palettes, painters had to puncture the bladders, squeeze out some paint, and then mend the bladders again to keep the rest of the paint mixtures from drying out. Rand's collapsible tube freed the painters from these cumbersome and messy processes, allowing artists to be more mobile and to paint in the open air.

Figure 9. A paragraph with too many transitions and one with an appropriate number

In comparison to the first example in Figure 9, the second paragraph uses transitions to effectively sustain momentum and flow in order to facilitate easy reading.

When used conscientiously, pronouns (e.g., *she*, *he*, *it*, *they*, *them*, *it*, *their*) can also establish connections in writing. To help readers understand the connections, pronouns (except *I*) usually need clear antecedents, which means they must refer to individuals, places, or things that have already been specifically mentioned, and they must agree with their antecedents in gender and number. In the following example, *the company* (the antecedent) is a singular entity, which means that a singular pronoun must be used when referring to it.

The company established new employee rules. **They** attempted to stem workplace absences. → Incorrect

The company established new employee rules. **It** attempted to stem workplace absences. → Correct

The pronouns *you* and *your* should also be used with care since they are appropriate in some types of writing (for example, teaching materials), but not in others. As a guideline, use these pronouns to refer to a specific reader directly rather than to people in general (the latter use signals an informal style of writing). The following example uses the pronoun *your* to refer to a specific reader directly: Bill, please send me **your** expense report by noon today.

Also be aware of expletives and the effect they can have on a text and its readers. An *expletive* is a non-specific word, placed at the beginning or in the middle of a sentence, that fills the position of another word. *There*, *this*, and *it* are commonly used as expletives. In the following example, the expletive can be removed by placing the *subject* (the thing or person performing the action or being described) at the beginning of the sentence.

There were many concerns expressed by meeting attendees. → Sentence with an expletive

Meeting attendees expressed many concerns. → Reformulated sentence

Since expletives add unnecessary words to sentences and can confuse readers, avoid them when possible.

Use the guidance provided in this chapter to identify a readability/concision/cohesion issue in the following text, which is adapted from Smith et al. (2018, pp. 135-136). You will find several instances of the same issue in the text.

The quality of animal-based studies is under increasing scrutiny, for good scientific and ethical reasons. Studies of papers reporting animal experiments have revealed alarming deficiencies in the information provided, even after the production and journal endorsement of reporting guidelines. There is also widespread concern about the lack of reproducibility and translatability of laboratory animal research (Begley & Ellis, 2012; Garner, 2014; Howells et al., 2014; van der Worp et al., 2010). This can, for example, contribute towards the failure of drugs when they enter human trials (Prinz et al., 2011). These issues come in addition to other concerns, not unique to animal research, about publication bias, which tends to favor the reporting of positive results and can lead to the acceptance of claims as fact. This has understandably sparked a demand for reduced waste when planning experiments involving animals (Chalmers et al., 2014; Macleod et al., 2014; Munafò et al., 2017). Reporting guidelines alone cannot solve the problem of wasteful experimentation, but thorough planning will increase the likelihood of success and is an important step in the implementation of the 3Rs: replacement, reduction, and refinement (Russell & Burch, 1959). There is therefore an urgent need for detailed but overarching guidelines for researchers on how to plan animal experiments that are safe and scientifically sound, address animal welfare, and contain links to the best guidance available on more specific topics.

What effect does the issue have on you as a reader?

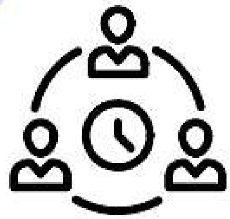
Well-Organized Paragraphs Encourage Reader Engagement

Remember that paragraphs exist to help readers. Use the guidelines in this chapter to help ensure that your writing is clear, readable, and easy to navigate.

Activity A: Analyze Style Characteristics

To gain familiarity with the style characteristics common to research writing in your chosen career field, including conventions for paragraph construction, text organization, and source integration, locate two journal articles or formal reports from that field. A librarian can help you find documents that align with your interests. Afterwards, use the guidance below to analyze the documents. The first two-page text is adapted from Ravaei et al. (2020), while the second text is adapted from Roux et al. (2020).

1



Person and tense

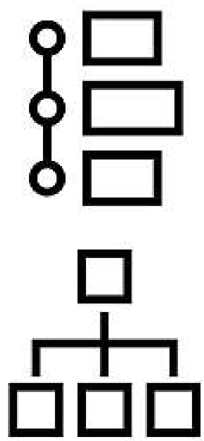
- What tense does the author use? Past, present, or future? Does it charge in different sections of paper?

  ____

- What person does the author write in?

  ____

2



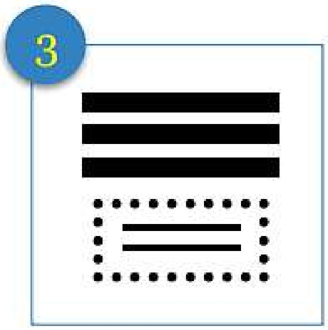
Organization

- Is the paper organized thematically? Chronologically?

  ____

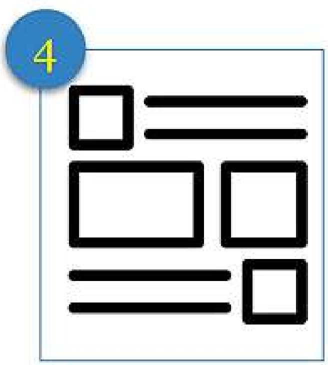
- Does the paper have an abstract? Y / N
- Does the paper have a formal introduction section? Y / N
- Does the paper have a formal conclusion section? Y / N
- Does the paper use formal section headings? Y / N
- If not, how does the author indicate the separation between sections?

  ____



Evidence

- What types of evidence does the article use?
- How does the article incorporate this evidence? For example, does it summarize sources or use direct quotation?
- If the article uses direct quotations, are these block or single-word quotations?



Citations

- How densely populated are the citations in the paper (1-5 citations per paragraph… etc.)
- What are some commonly used verbs/language to describe sources, e.g. "observe," "argues," "suggested"… etc.
- What citation format does the author use?

Do the documents you found use any of the following means of source integration? Do you plan to use these approaches in your own writing? Why or why not?

____
____
____
____
____

Making a claim without a quote:	Claim (Citation).

Ex. Some view cities as the storehouse of culture and creativity, and propose that urbanization is a consequence of the attractiveness of these social benefits (Mumford, 1961).

Make a claim that is supported by two or more sources:	Claim (Citation 1; Citation 2).

Ex. Reviews of this literature concede difficulty in making direct comparisons of emission levels across different sets of analysis (Bader and Bleischwitz, 2009; Kennedy et al., 2009; Ramaswami et al., 2012).

Make a claim that has been supported in multiple contexts:	Context 1 (Citation), Context 2 (Citation), Context 3 (Citation).

Ex. These results are supported by more recent research on transportation energy consumption (Liddle, 2014), electricity consumption in buildings (Lariviere and Lafrance, 1999), and overall urban GHG emissions (Marcotullio et al., 2013).

Quote important or unique terms:	Claim "Term" (Citation).

Ex. The spatial implications of this thinking are manifest in the "concentric ring model" of urban expansion and its variants (Harris and Ullman, 1945).

Use a direct quotation:	Introduce quote: "Quotation." (Citation)

Ex. Following this review, we adopted the following definition of person-centered maternity care: "Providing maternity care that is respectful and responsive to individual women and their families' preferences, needs, and values, and ensuring that their values guide all clinical decisions," a definition from the Institute of Medicine (Institute of Medicine, 2001).

What conclusions can you draw about research writing in your chosen career field as a result of completing this activity?

Activity B: Create a Checklist to Use When Writing and Revising Paragraphs

Read the following handouts.

- "10 Common Grammatical Errors and Conventions in Academic Writing" (Robert Gillespie Academic Skills Centre, University of Toronto Mississauga, n.d.) at https://www.utm.utoronto.ca/asc/sites/files/asc/public/shared/pdf/tip_sheets_writing/10GrammarErrors_web_v2.pdf
- "Parallelism" (Writing and Communication Centre, University of Waterloo, n.d.-c) at https://uwaterloo.ca/writing-and-communication-centre/sites/ca.writing-and-communication-centre/files/uploads/files/parallelism_0.pdf

Draw upon the handout information to create a checklist to use when writing and revising paragraphs. Be prepared to discuss your checklist items in class.

Activity C: Create a List of Linking Expressions

Match the groups of linking words and phrases with their meanings to produce a list of expressions you can use in your papers.

Meanings: summary, cause/effect, emphasis, concession, addition, generalization, sequence, elaboration, illustration, comparison, contrast

Meanings of the Linking Expressions	Linking Expressions
	Again, also, and, and then, moreover, another, equally important, finally, additionally, further, furthermore, apart from this, in addition, nor, too, what is more, so too, not only … but also
	Accordingly, as a result, hence, so, thus, since, consequently, therefore, as a consequence, for this reason, this leads to, because of this, if … then
	In the same way, similar to, likewise, similarly, along the same lines, in comparison, comparatively
	Granted, naturally, of course, admittedly, to be sure, although it is true, if, in that case, provided that
	Although, however, in contrast, nevertheless, on the contrary, otherwise, regardless, yet, but, conversely, despite, even though, nonetheless, on the other hand, whereas
	Actually, by extension, in other words, that is, to put it another way, to put it succinctly, ultimately, namely, or rather, this means, to be more precise
	Certainly, indeed, in fact, moreover, of course, chiefly, especially, importantly, in particular, mainly, notably, particularly
	As a rule, for the most part, generally, in general, normally, on the whole, in most cases, usually, clearly, naturally, obviously, surely
	For example, for instance, indeed, in fact, in other words, in short, namely, specifically, after all, to illustrate, consider, to take a case in point, such as, as follows
	Altogether, finally, in brief, in conclusion, in short, in summary, on the whole, therefore, in sum, to sum up, to summarize, to conclude, overall
	Afterward, again, before, eventually, finally, last, lately, meanwhile, next, subsequently, then, at first, first, firstly, initially, lastly, prior to, now, presently, simultaneously, since, so far, soon, thereafter, when

Homework: Prepare a Memo that Focuses on Course Outcomes

Consider your current skill level in relationship to the outcomes for your writing course(s), and address the questions listed below in a memo. Use the guidelines in this chapter to organize your paragraphs and to ensure they are cohesive and coherent, and remember to cite and reference any outside sources of information you use.

- Which course outcomes do you feel well prepared to meet? How and where did you acquire the knowledge/skills related to these outcomes—past writing courses, other courses with writing requirements, or on-the-job experience?
- Which course outcomes will present the most challenges for you, and why? What, specifically, can you do to meet the challenges of these course outcomes?

Consult the “Writing Print Correspondence” chapter of this textbook for guidance when writing and formatting your memo.

After you have drafted your memo, use the checklist you developed in Activity B to revise your work.

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Using Appropriate Style and Language

Stacey Corbitt

Chapter Overview

This chapter enlightens writers about expectations in technical writing, both academic and professional, in the areas of verbosity, formality, and wording appropriately for the intended audience, purpose, and context of documents. Audience and context are paramount to word choice considerations. Most students are comfortable with language they use in everyday casual social exchanges. However, everyone needs to practice to become professionals with skills in academic and job-related writing.

Through study of examples found in professional documents and practice of the information introduced in this chapter, students will learn to consider audience, purpose, and context of writing situations in choosing language and styles for documents with the goal of improving the audience's ability to understand and use those documents efficiently.

This chapter aims to help students develop the following skills:

- to identify and avoid or revise wording that is discriminatory or otherwise may offend readers;
- to address confusion and increase accuracy in word choices;
- to develop language and style habits that are precise, accurate, and appropriately formal for writing in academic and professional settings; and
- to recognize situations in which passive or active voice are appropriate style choices.

How can writers identify and avoid using offensive language?

If you have been employed in the United States, or you have recently attended an American public or private school of any kind, you are likely keenly aware that boundaries on behavior exist and are enforced, both at work and at school. Discrimination or harassment found to stem from any characteristics within a protected class of traits is illegal and can get you expelled or fired. Most can agree that the global sociopolitical climate presents increasing challenges for writers to meet. Additionally, if you are pursuing a professional career in a STEM field, your chances of studying and working with diverse groups are quite high, increasing your opportunities to experience varied cultures in which you may need to adjust your language to maintain professionalism and cultural sensitivity in communication.

Recognize and Avoid Racist, Sexist, and Culturally Insensitive Language

The term *protected class* in the previous paragraph refers to sex or race, as well as multiple other characteristics. U.S. federal laws prohibit discriminatory treatment by service providers and employers on the basis of the person's identification with a protected class. The decisions writers make about word usage are critical in avoiding offensive language, so understanding how the audience will perceive the message based on the delivery of the message – rather than on the writer's *intention* – is crucial. As with nearly everything else in responsible adult society, "I didn't mean *that,*" or even "I didn't know" are meaningless excuses for offending another person with communication choices. Awareness about discrimination and careful choices are not optional for anyone operating in a professional capacity.

It is likely you know the meaning of *racism,* and you have been taught how to communicate in writing without being offensive to people identifying with any racial group*. Sexism* and the related term *sexist language* refer to discrimination against a person based on that person's sex or gender. Though not by definition, sex-based discrimination is overwhelmingly committed against women; and stereotyping women as being generally inferior to men has given rise to a variety of behaviors that you must avoid and must not tolerate from other professionals.

Among the offenses to eliminate from writing of all types are the following sexist choices:

- **Do not** refer to women as "girls," or address women using other condescending or diminutive/familiar terms (such as "sweetie"). These choices are inappropriate in part because they indicate the other person is unequal or "less than" another person.
- **Do not** attempt humor or casual connections through the use of classic stereotyping language, such as "You know women drivers!"
- **Do not** employ clichés or euphemisms in any writing or other communication: referring to certain tasks as "women's work," for example, is unacceptable sexist behavior.
- **Keep in mind** that women who commit any of these linguistic offenses against other women *or* against men are equally guilty of using inappropriate sexist language.

Similar pitfalls exist with regard to language that may be insensitive to readers with regard to disability: the term *handicapped,* for example, was previously acceptable but has been removed from federal statute because it is offensive (US Dept. of Education, 2010). Terms that can be construed as insensitive to persons relative to their age (*ageist* language like *kids* for young adults*,* or *old-timers)* are simply not worth risking offense in an attempt at cleverness. Remember the lesson with regard to avoiding potentially offensive language is simply this: your *intent* can be obscured by word choices in attempting to relay that intent in a message. The writer's *responsibility* is to be respectful and unbiased in language choices.

What about unintentional use of language that indicates potential *bias*?

You may have determined by now that you understand how to avoid the major infractions: but, the more subtle errors are no less important and might be more difficult to recognize. As you read the following handout provided by the Colorado School of Mines Writing Center (2019), notice the reclassification of some wording conventions. Words and phrases previously taught as appropriately formal are now rejected as indications of inappropriate biases. Additionally, the seventh edition of the APA Publication Manual (2019) contains that organization's updated guidelines for reducing bias in language in its Chapter 5.

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BIASED LANGUAGE

What is biased language?

Most technical writers do not intend to cause their audience psychological distress; however, we sometimes lapse into word choices that can offend people—because of reasons related to gender, sexual orientation, socio-economic status, disability, or ethnicity.

In technical and scientific writing, aim to not mention differences among people, so instead of referring to a person as a chairman (which one could call sexist), we should consider instead using chair or chairperson. Technical writing is void of value judgements (see exercise on tone).

Gender & Ethnicity

Also, knowing another person's ethnicity, sexual orientation, or disability—markers of difference—hardly ever yields relevant information. Ergo, in writing, we should avoid referring to people as, for example, a "visually-impaired chemist" or as "a female engineer"; it implies that the person's disability or gender is the most important aspect about her or him.

Furthermore, instead of writing a sentence like "mankind has often discovered innovations to mine for resources," consider writing something like the following: "Humankind has often discovered innovations to mine for resources."

One could argue that mankind only privileges men whereas humankind is much more inclusive.

Pronouns

Pronouns can often signify an unintentional bias. Pronouns and nouns must agree.

Here is an example: "Each member of the team brought their unique knowledge of nuclear fusion to the project."

Their is a pronoun, and it refers to the noun member; their signifies many, but member indicates only one person—the pronoun does not match with the noun.

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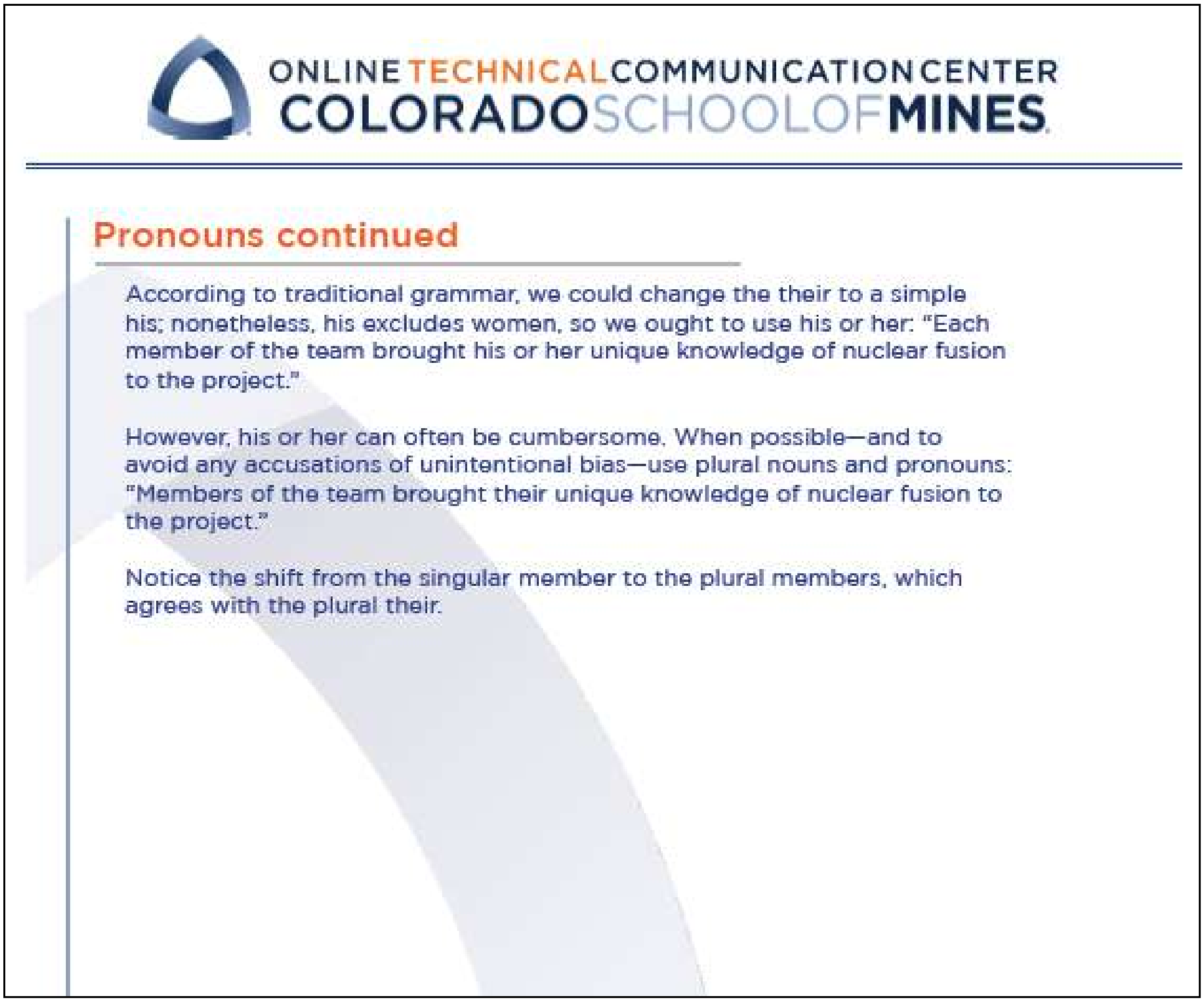

Consider the example provided on the first page of the handout discussing the choice between *mankind* and *humankind.* Do you think the change is appropriate as shown in the example? Can you think of a clearer or more efficient way to revise the biased wording? Are there disadvantages to the revision presented in the handout? Explain your answers.

Activity: Removing Bias and Matching Pronouns with Nouns

Consider again the *Pronouns* section of the handout provided on the previous pages and practice revising the following sentences, which are adapted from the Colorado School of Mines Writing Center's "Biased Language Exercises" (2019). Remember to remove potentially biased constructions by:

- changing singular nouns and pronouns to plurals; or
- revising the obsolete assumed male pronoun to include both sexes: he/him *or* she/her.

Also, revise the nouns and pronouns as necessary to match singular nouns with singular pronouns; and plural nouns with plural pronouns.

1. Mankind is developing technology that can fight against climate change.

2. Each researcher designed his vision of what the drone should look like before sharing it with their team members.

3. It can sometimes be difficult to distinguish between man-made chemicals and natural chemicals.

4. Each chemical engineer on the project created their own synthetic material.

Address Confusion and Increase Accuracy in Word Choices: Look it Up

The "Reporting Research Outcomes" chapter introduces some of the most commonly confused pairs of terms that appear in research writing. Multiple resources exist online to help you choose words correctly in confusing or similar-sounding pairs of terms. The only serious error you can make as a technical writer regarding such word mix-ups? Not taking the time to look the words up to confirm you are accurately using correct terms. Here is a place to start improving your skills at choosing correct words.

Talk it Out

You probably have peers or other friends with whom you enjoy spending leisure time. Perhaps you have other friends with whom you study, still others in your exercise group, and family members who are your favorite travel companions. Another great partner or group to cultivate in your life is a reading and writing buddy. A peer reviewer is among a college student's most valuable resources for improving academic and practical skills and the grade marks earned through demonstrating those skills. Engaging in peer review exchanges is sometimes the most helpful learning process of any introduced in a writing course.

Working with a peer to revise for wording can be a quick and easy way to improve drafts. The lessons in this textbook offer a number of opportunities to complete structured peer review exercises: however, a more casual level of peer review is worth arranging with others in your class. Consider opening a dialogue with one of your classmates or other peers in school and arrange to exchange drafts with each other prior to assignment due dates. Some student writers find that taking turns reading each other's papers aloud while listening for awkward wording and other errors is a good icebreaker for beginning the revision process.

Talking it out with a peer tutor or other member of your school's student success staff will almost certainly help. Does your campus include a writing center or other support system for students to meet with tutors or academic coaches? Find out what help is available and sign up for a session *before* you are having difficulty. If you follow the guidance from your school's tutoring program and arrive prepared with a draft, it is likely you can get assistance with multiple aspects of revisions (not just wording).

How do writers choose language and styles that are precise, accurate, and appropriately formal for writing in academic and professional settings?

In addition to the essential work you must do to ensure documents are free from both overtly discriminatory or offensive language and the more insidious biased word choices, your diligence in presenting a message that thoughtfully meets the needs of the audience is stressed as well. Many chapters in this textbook emphasize the need to analyze the audience for whom documents are prepared. Study the Colorado School of Mines Writing Center's "Identifying Your Audience" handout (2020) on the following pages:

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IDENTIFYING YOUR AUDIENCE

Before you begin writing a paper, article or other document, it is important to consider who your intended audience is. Knowing your audience and their knowledge, attitude, and expectations about your topic will help you create a clear purpose, organize ideas, and connect with your readers.

Why Audience Matters

Understanding the audience you are writing to can help you decide what information and details to include about your topic, how to structure your document, and what tone and vocabulary you should use. To fully address your audience, you will want to understand their age and other demographics. Then, consider what assumptions and background information they might have on your topic, including what they might expect to learn or gain by reading your work.

When writing an academic paper, try to remember that your instructor or the person grading your paper is not necessarily the intended audience. Think about who you actually intend to educate, persuade, or entertain through your writing.

What to Include

Depending on your intended audience, you need to include enough technical detail so that your readers can fully understand your work, but not too many that they get overwhelmed with information. Further, your word choice, tone, and overall paper structure need to match your audience's expectations, whether in a professional or non-formal setting.

Generally, you do not want to assume that your reader will understand every detail about your specific topic. So, include enough material that your main point is clear while still keeping the paper concise. Finally, try developing your paragraphs using a combination of examples, data, and technical detail to connect with your readers and keep them interested.

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Types of Audience

Audience	Tips	Example Documents
Professionals in your field	You may assume this audience has some familiarity with your topic. Use the terminology (such as research-specific, more complex vocabulary) and professional writing style and tone that is common in your field.	Peer-reviewed journal articles, academic research papers
Larger academic community	Do not necessarily assume that this audience has background knowledge on your topic. Explain specific terminology and acronyms, and use a professional writing style and tone that is common in your field.	Peer-reviewed journal articles, academic research papers
Non-academic, general readers	Do not assume that this audience has background knowledge on your topic. Provide sufficient details that support your main idea and write in plain English. Use examples, personal stories, figures, and visuals to connect with the audience.	Newspaper or magazine articles, presentations to younger or widely varied audiences, fiction or creative writing

Review Your Work

Before publishing your final draft, consider asking a friend, a professional from the Writing Center, or any person in your intended audience to review your writing. Ask them to provide feedback to ensure your writing includes the right amount of detail and is impacting your audience as desired.

Reflect on the following question or discuss in class as directed by your instructor: how can understanding your audience members' level of knowledge about your topic help you address language and style with confidence?

How do writers recognize which situations require active or passive voice style choices?

The "Writing Sentences" chapter of this textbook addresses the differences between *active* and *passive* construction and explains how to revise sentences to convert them from one style to the other. Be mindful, however, that passive construction is not an error or bad habit that should be avoided: rather, it is useful and even preferred for some purposes in professional writing. This section reviews situations in which one style or the other may be preferred, and explores how such choices may affect the effectiveness and outcomes of documents.

<u>When is passive construction preferred?</u>

As it is defined in the "Writing Sentences" chapter, *passive* refers to sentences in which the action of the verb is <u>happening to the subject</u>. Forms of the verb *to be* – which show no action but instead simply represent a state of being – are always a component of passive construction. However, not all uses of *to be* verbs are automatically passive.

In High School Preparatory Courses

College writing students often bring a strong resistance to writing "in the first person," or using the pronouns "I" and "me" in assignments. College preparatory writing courses may emphasize avoiding first-person writing as being too informal for college work: however, technical writing might *require* writers to identify and refer to themselves in documents. The reasons for writing in a first-person voice are explained in the next section.

In Documents When Writers Want to Downplay the Actor

At first glance, the idea of "downplaying the actor" of a sentence may not make sense. The actor performing the verb is normally the subject of the sentence. It's what the sentence is about. Another way to think about using passive voice is that it allows a writer to emphasize the *object* of the verb in the sentence: that is, the noun being acted upon by the verb. In passive voice, that object becomes the *subject* of the sentence. Consider an example:

Active construction: *Somebody vandalized the statues on campus last summer.*
subject **verb** **object**

As you know, the **subject-verb-object** construction above is written correctly. However, what if the writer wanted to emphasize the statues in the sentence? After all, perhaps since there is not a specific vandal being accused, the fact that the statues were damaged seems to be the important point of the sentence. Note the revised version:

Passive construction: *The statues on campus were vandalized last summer by somebody.*
subject **verb** **prep. phrase**

What is important to the writer in this example is the statues. They were the *object* receiving the action of the verb in the *active* sentence, but in the second version, the statues are the *subject* of a passive verb. One notable improvement can be made to this passive construction because the subject and verb are present, making a complete sentence. If you remove the prepositional phrase, the sentence maintains its meaning but becomes shorter:

Clearer passive construction: *The statues on campus were vandalized last summer.*
subject ***to be*** **+ verb**

The writer in this case may or may not know who the "somebody" was, but the writer's emphasis is clearly *the statues* and what happened to them. Notice how the construction, while passive, does not make the sentence wordy, vague, or overly complex. It simply emphasizes the object of the verb from the active construction.

In Documents When Writers Want to Indicate Objectivity
In the examples above, the agent performing the action in the sentences appears to be unknown – it's "somebody," but that's all we know. In college and professional work, you will find research writing frequently uses passive construction; not because the agent is unknown, but instead to focus attention on the work being reported rather than on the author. While researchers in some fields – some of the social sciences, for example – may use first-person pronouns in their journal articles, the industry standard in your chosen field may well be to write in third person. Such construction, which is most easily obtained using the passive voice, has a more formal tone overall than first person voice. Additionally, when a writer explains that "a group of samples *was chosen*" instead of writing "*I chose* a group of samples," readers may get a sense that the research is objective and non-biased because the researcher is not directly identified in the statement.

Look at the following excerpt from a peer-reviewed journal article: "Applying photogrammetry to reconstruct 3D luminance point clouds of indoor environments," published in the journal *Architectural Engineering and Design Management* (Kurkela, Maksimainen, Julin, Virtanen, Mannisto, Vaaja, & Hyyppa, 2020). What do you notice about the use of passive and active construction?

Camera equipment and image data

As the aim was to facilitate both luminance mapping and 3D reconstruction from the same image set, the requirements from both of these had to be taken into account in data acquisition. Imaging luminance photometry is usually accomplished by capturing multiple images from one location using a tripod. Photogrammetric imaging is performed by capturing images from different locations and a tripod could be used especially for low lighting situations. In our case, however, the complex environment would have made the use of a tripod inconvenient and time-consuming. Hence, we captured the image set with a hand-held camera. As the optimal camera system and settings for these two measurement methods differ, a compromise is needed. In practice, this means that the exposure is determined by the lowest luminance value we want to measure, and using HDR imaging was not applicable.

We used a Nikon D800E camera with a Nikkor AF-S 14-24 mm f/2.8G ED lens locked to a 14 mm focal length. For hand-held image capturing, we applied a 1/250 s shutter speed. The aperture of f/5.6 and the ISO sensitivity of 3,200 were selected for optimal depth of field and signal-to-noise ratio. The camera had been calibrated both radiometrically and geometrically, and the vignetting correction function for the camera system was determined (Kurkela et al., 2017).

The full measurement data set consisted of 453 Nikon electronic format (NEF) raw images. The adopted 3D reconstruction software slightly altered the 16-bit images, while the 8-bit images remain unchanged. Hence, the following pre-processing was performed on the measurement series in order to preserve its bit depth when using 8-bit images. The luminance information is a single scalar that is obtained from the measured *R*, *G*, and *B* values by applying Equation 1. The original bit depth of the raw measurement was between 12 and 13 bits, which was converted to a 16-bit image for luminance calculation. In the photogrammetric reconstruction, we had three 8-bit channels – R, G and B – that we could use for each 16-bit luminance scalar. Hence, the single 16-bit luminance information was mapped over the three 8-bit channels. In this way, the usable dynamic range of 3 * 8-bits was attained, with the ability to distinguish 2^{24} different numeric values. Thus, the dynamic resolution of the image (approximately 13 bits) can be preserved through the 3D reconstruction process.

Activity: Recognize Passive and Active Voice Construction

Working with a partner, identify each sentence in the excerpt above that is written in an *active* (rather than passive) construction. Write each sentence below and explain how you know it is written in an active voice.

Now, work with your partner to identify all of the subject-verb pairs (one in each sentence) written in a passive format: that is, [subject] is acted upon by the agent. Remember some of the verbs will simply be forms of *to be*:

Do you think the discussion in the excerpt suggests a bias or subjectivity on the part of the writers? Explain your answer:

While active-voice writing is indicated as a strong preference in many works of technical writing, the appropriate choice relates (not surprisingly) to the audience. In other words, you should always ask your instructor for his or her preference when considering first or third person for an assignment. Note that in the "Writing Lab Reports" chapter, passive voice and third person construction is valued for its ability to make the reports objective. Use of the passive voice may be preferred for high school composition courses and formal college writing situations; when the writer wants to emphasize the receiver of the verb's action; and when reporting research outcomes in fields where third person passive voice is an industry- or field-wide standard.

<u>When is active construction preferred?</u>

Active voice construction frequently results in shorter, clearer sentences. For that reason, work to develop a writing style in which the active voice is predominant. Again, the audience is always a writer's primary consideration when choosing wording, structure, style, and tone for a document. Instructions, for example, are most effective when presented in active voice. Given that audiences for your technical writing endeavors will benefit from work that is clear, concise, complete, and correct, "more active than passive" voice is preferred generally unless there is a clear expectation or requirement to use passive voice.

Activity: Convert from Passive to Active Voice

Convert the following sentences from passive to active voice so they are more clear and concise. Your new sentences should have fewer words than the originals: make all changes you think are helpful. Remember to revise by:

- changing the <u>subject</u> of the passive sentence from the noun *receiving* the verb's action to the noun *doing the action*
- making the old subject into the <u>object</u> of the active verb

1. The volume control slider should be placed in the "Minimum" position before the power cord is plugged in by the operator.

2. A lot of food was prepared for the week-long summer camp, but it was not eaten by the campers.

3. The brains of fearful or arrogant individuals are flavored in the same way and are equally enjoyed by zombies.

4. A variety of synthetic materials were created by the students who were working in the lab.

Chapter Conclusion

Make deliberate wording choices in all professional and technical writing efforts. Using offensive or insensitive language results in disastrous outcomes. Choose accurate and appropriate words, revise carefully, and observe formality conventions for the situation your documents serve. Often obtaining a peer review is worth the time and effort to ensure documents are clear, concise, complete, correct, and appropriate for intended as well as tertiary audiences. Successful writing is deliberate and requires practice, which means asking questions and revising work until you are confident in its suitability for the audience, context, and purpose.

Homework

Developmental Writing Assignment

1. Read and take notes on the editorial document at this link: https://www.nytimes.com/2015/10/22/opinion/how-texas-teaches-history.html

2. Write and submit a summary addressing the three instances the author discusses in which passive voice was used, in her opinion, to downplay the significance of the information provided by the textbook(s). Do you agree or disagree with the author's assessment of this use of passive construction? Why or why not? Be prepared to discuss your summary and opinions in class.

Technical Writing Document Creation Assignment

1. Read and take notes on the article at this link: https://bit.ly/2Cf5xQt

2. Follow one or more links from within the article to the research the author relied on for her evidence.

3. Write a guidance memo to the managers of a company you may work for addressing the *do's* and *don'ts* of non-discrimination in the workplace with special attention to avoiding ageist bias.

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Unit III: Attending to Design

Designing Documents

Integrating Graphic Elements

Designing Documents

Stacey Corbitt

Chapter Overview

Apicius, a Roman foodie of the first century, said "We eat first with our eyes." Information, not unlike food, must appeal visually to a reader immediately if it is to have a fighting chance of being understood and used. Readers decide whether to "consume" documents in a similar way to how people decide whether to consume a meal. Eating documents first with the eyes means readers rely on a document's formatting as a means of indicating readability. Therefore, it is critical that writers use the available tools discussed in this chapter to optimize readability: if the document is not appetizing at first glance, readers may ignore or avoid it altogether.

In similar ways as illustration is a powerful visual tool for technical writers, attending to the graphic or visual design of documents critically affects an audience's ability to understand and use those documents. Keep in mind that technical documents must be clear, complete, concise, and correct in order to succeed in their purpose. The audience and purpose must be a writer's primary considerations in making design decisions.

The explanations, examples, and exercises in this chapter aim to help students learn how to use principles known to appeal to human visual perception through development of these skills:

- To make decisions about document design according to the SCRAP design principles
- To use page design features deliberately with the purpose and readers' needs in mind
- To be mindful of reasons to use and change fonts (including sizes and styles)
- To practice using titles and headings in most academic and professional writing

What are the SCRAP design principles?

Typical lessons about document design principles include most of the same principles, presented in some variation on the SCRAP* acronym used in this chapter. For purposes of this fundamentals and introductory technical writing text, the following principles are explored:

- **S**ize — The size of an element on a page indicates importance of the element
- **C**ontrast — Use color and high variations in shade to draw the reader's attention
- **R**epetition — Pattern consistency among headings/other elements shows relationships
- **A**lignment — Consistently lined up items on a page connect in a reader's mind
- **P**roximity — Readers see elements placed close together as being related in meaning

* The same principles may also be represented by the acronyms *CARPS* or *CRAPS*.

What page design elements matter for purpose clarity and reader success?

The writer's purpose for creating a document is often the clearest path to take in answering the question above. Why are you creating your document? Keep in mind the answer is <u>never</u> one of these:

- Because I need to get a good grade on an assignment
- Because it's in the syllabus
- I don't know

While a writing assignment may be the starting point for you in creating a document, it is never the *purpose* of the document. Similarly, without knowing the goals a piece of writing must accomplish, there is no way to judge whether the document was a success or failure. Therefore, the purpose of your document must be clear to you. Why are you creating your document?

- To *persuade* my audience
- To *entertain* my audience
- To *inform* my audience
- ?

Can you think of another purpose for a document that might not fit into one of the general purposes listed above? Discuss with a classmate and, if so, write that *purpose* below:

<u>Identify the Audience</u>

Finally, the *audience* for whom a document is intended must determine the ultimate effectiveness of a piece of writing in achieving its purpose. When a writer's specific purpose for developing a document is known, it is possible the makeup of the audience may also be specific. However, the intended audience may be comprised of people representing a range of ages, interests, socioeconomic and educational backgrounds who also have varying degrees of knowledge and beliefs about your topic. For this reason, it is always a best practice to analyze an audience early and often as you make decisions about design elements.

Activity: Analyze an Example to Identify its *Purpose* and its *Audience*

Review and discuss the following US Dept. of Labor poster (2012) with your classmates as directed by your instructor. Answer the questions and be prepared to discuss in class.

https://www.osha.gov/Publications/3231_Teen_Poster.pdf

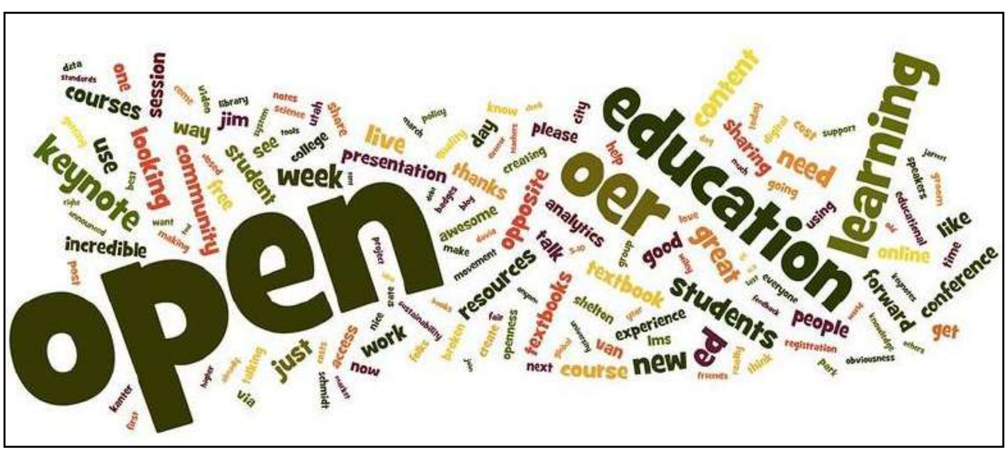
What do you think is the primary purpose of the example document? How do you know?

Who is the primary target audience for the document? Be as specific as possible regarding as many characteristics of the audience as you can.

The five design principles of SCRAP may not always apply to every document you create: nevertheless, as a careful technical writer you should consider each of the principles as you try various methods of developing documents that reach your defined audience in ways that successfully achieve the purpose of your message.

Size of an Element Indicates Importance of the Element

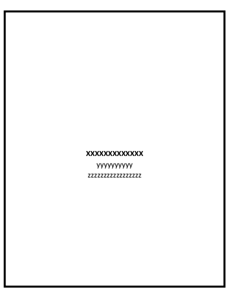
Consider the way a relatively new type of image – the *word cloud* – demonstrates how size may indicate importance (image: [Wiley](), 2011):

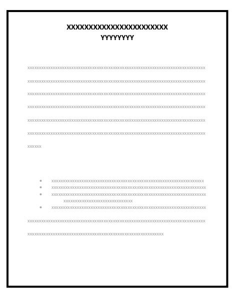


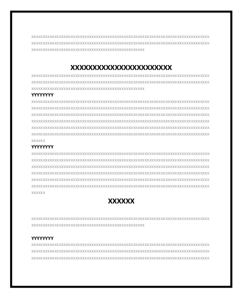
The *word cloud* is a visual representation of the frequency or importance of terms contained in a digital discussion or document. In this instance, it presents an easy visual representation of how size demonstrates importance of an element in a document. What stands out in the sample illustration as being important? Discuss with your classmates what may be the subject of the discussion represented by the word cloud above.

Contrast Draws Attention

Documents employ white space on a page in order to increase the contrast between the "empty" space on a page and the text or other elements. In other words, what is "not there" can focus a reader's attention precisely where the writer wants the attention: for example, what would you read first on the following page examples? What do the pages represent (even though you cannot "read" them) simply based upon the *contrast* your eyes can identify?







A word of caution: take care not to overuse contrast on a single page. You may find it works best when drawing attention to a single element.

Repetition of Patterns Creates Connections Throughout a Document

For example, using elements like text boxes with a color to present exercises, or bulleted lists for all summaries, can be a strong signal to readers. If all examples appear in the same format with the same colors and fonts, readers can immediately recognize there is a relationship among those elements that bear the same characteristics.

Working with a peer in class, look at one of your other course textbooks and try to identify a visual pattern that is easy to spot as you compare two chapters to each other. Can you determine that the two chapters have one or more sections that bear the same heading? For example, is there a section in each chapter called “Chapter Summary” or something similar?

Discuss with your partner what features those sections or elements have in common across both chapters. The repetition of things like font style and size, colors, graphics or shapes, and headings all work to make the document (chapter) cohesive within itself and connected to the other chapters through consistency of design.

Alignment Makes the Organization of a Page Obvious

Closely related to repetition of page design features is alignment, which reinforces the relationships among items in a text that are primary, equal, and subordinate. Alignment is most evident in professional writing through the use of bulleted or numbered *lists* on a page; and numbered *sections* in a document. If you look back at the miniature images of pages in the *Contrast* section, you can probably identify titles, main section headings, subsection headings, bulleted lists, and plain text. These elements are easier to discern and place in relationship to other elements largely because of their *alignment,* or levels of indentation from the left margin.

Proximity Clarifies the Big Picture

Readers typically see items as closely related to each other when they appear in close *proximity* to one another. At a minimum, it is important to use proximity as a design tool to prevent confusion that can occur when closely related elements are not clearly visually connected. For example, compare the two lists on the following page. Which example shows items closely connected in a way that is helpful to your understanding? What, if anything, on the next page may create confusion for a reader?

Library Holdings
Atonement by Ian McEwan
The Abstinence Teacher by Tom Perrotta
The Adventures of Huckleberry Finn by Mark Twain
The Audacity of Hope: Thoughts on Reclaiming the American Dream by Barack Obama
Around the World in 80 Days by Jules Verne
Ballad of the Whiskey Robber by Julian Rubinstein
The Beach House by Jane Green
The Book of Lost Things by John Connolly
The Book Thief by Markus Zusak
The Brief Wondrous Life of Oscar Wao by Junot Díaz
The Book of Illusions by Paul Auster
Bleachers by John Grisham
Call Waiting by Michelle Cunnah
Confessions of a Serial Dater by Michelle Cunnah
Choke by Chuck Palahniuk
The Cider House Rules by John Irving
A Clockwork Orange by Anthony Burgess
Chronicle of a Death Foretold by Gabriel García Márquez

Library Holdings
By Title – A through C
• (The) Abstinence Teacher
• (The) Adventures of Huckleberry Finn
• Around the World in 80 Days
• Atonement
• (The) Audacity of Hope: Thoughts on Reclaiming the American Dream
• Ballad of the Whiskey Robber
• (The) Beach House
• Bleachers
• (The) Book of Illusions
• (The) Book of Lost Things
• (The) Book Thief
• (The) Brief Wondrous Life of Oscar Wao
• Call Waiting
• (The) Cider House Rules
• (A) Clockwork Orange
• Choke
• Chronicle of a Death Foretold
• Confessions of a Serial Dater

The significance of proximity for enforcing connections while minimizing confusion is also demonstrated in the "Integrating Graphics" chapter of this textbook. Specifically, illustrations are good examples of elements that necessarily have proximity requirements. In the event as a reader you find illustrations that confuse rather than clarify, ask the following questions about the proximity of the related elements to each other:

- Are the signal phrases obvious in the text immediately preceding the illustration? Avoid placing these two items more than a fraction of a page apart in the document.
- Are the captions attached to, and appearing on the same page as, the graphic elements?

At this point you may recognize that all the principles of SCRAP overlap with and influence each other. Do not be concerned if you have trouble discerning, for example, *repetition* from *alignment* as you employ those strategies in your own documents. These five principles work in different combinations to focus your writing to assist readers in understanding and fully responding to your work.

What are the rules and considerations for choosing font sizes and styles?

In a way that is similar to the “little goes a long way” advice about using contrast, deliberate yet subtle changes in the size and style of text are essential in developing superb technical documents. Consider the American Psychological Association’s (APA’s) direction in Section 2.19 of the Style Manual – Seventh Edition (2019), excerpted below:

APA STYLE AMERICAN PSYCHOLOGICAL ASSOCIATION

Font

A variety of fonts are permitted in APA Style papers. Font options include the following:

- **sans serif fonts** such as 11-point Calibri, 11-point Arial, or 10-point Lucida Sans Unicode
- **serif fonts** such as 12-point Times New Roman, 11-point Georgia, or normal (10-point) Computer Modern (the default font for LaTeX)

We recommend these fonts because they are legible and widely available and because they include special characters such as math symbols and Greek letters. Historically, sans serif fonts have been preferred for online works and serif fonts for print works; however, modern screen resolutions can typically accommodate either type of font, and people who use assistive technologies can adjust font settings to their preferences. For more on how font relates to accessibility, visit the page on the accessibility of APA Style.

Use the same font throughout your paper, with the following exceptions:

- **figures:** Within figure images, use a sans serif font with a type size between 8 and 14 points.
- **computer code:** To present computer code, use a monospace font such as 10-point Lucida Console or 10-point Courier New.
- **footnotes:** When inserting footnotes with the footnotes function of your word-processing program, use the default font settings. The footnote font might be smaller than the text font (and have different line spacing), and it is not necessary to change it.

Instructors and publishers vary in how they specify length requirements. Different fonts take up different amounts of space on the page; thus, we recommend using word count rather than page count to gauge paper length if possible.

Discuss the use of different fonts with your peers in class. In the past, what kinds of choices have you made in your use of fonts in various types of writing? Why do you think APA does not provide for more creative changes in its guide?

Keep in mind that, particularly in technical writing, you will have many opportunities to use illustrations and other interesting visual elements that are not generally part of typical essay-style college writing. In other words, strive for clear, easy-to-read text presented in a standard font at a readable – but not distracting – size. The words you write should always convey the meaning and the message of your document and should not distract readers or raise questions about items unrelated to that message.

Are titles and headings really necessary for most documents?

Chances are you learned limited uses for and information about elements like *section headings* and *subheadings* in high school courses. Understandably, your instructors needed to focus on making sure you and your classmates had adequate practice with skills like grammar, mechanics, sentence structure, and paragraph development to get you ready for post-secondary education. Now that you are writing at a college level in preparation for a professional career, attention to the elements and aspects of technical writing style is warranted.

Recall what you learned in the early chapters of this textbook about technical writing's characteristics. Technical writing is clear and concise: it does not employ overly complex words or excessively long sentences. Technical writing is accessible, in part because it avoids long paragraphs while striving to be complete and correct by including relevant details. In order to achieve its goals, technical writing relies specifically on descriptive *titles* and consistent, useful signposts within documents, typically in the form of *headings*. Correspondence, both in the common forms of 1) personal and formal letters; and 2) business emails and memos; is the main exception to the "titles" rule, but correspondence can benefit from section headings as well.

Chapter Conclusion

The only way a writer can ensure an audience will use his or her document for its intended purpose is by designing that document as an appealing and highly usable instrument. Elements of design discussed in this chapter include size, contrast, repetition, alignment, and proximity (SCRAPS). Technical writing demands attention to design, including but not limited to SCRAPS.

Homework

1. Locate a poorly designed document that does not align with the SCRAP design principles.
2. Prepare an APA-style reference entry for the document.
3. Write a memo to your instructor explaining the design issues you identified in the original document: include in-text citations. Create figures if applicable.
4. Summarize the changes you would make to help bring the document in line with the design principles you have studied here and provide a rationale for your design choices.

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Wiley, D. 2011, October 10. “Word cloud” is licensed under CC-BY- 2.0. Retrieved from https://www.flickr.com/photos/davidwiley/6296834006/

Integrating Graphic Elements

Stacey Corbitt

Chapter Overview

A common sentiment about reading and writing, especially among adult learners, is that we wish we could write using lots of pictures and not a lot of words. We hear ourselves say things like "I hate writing," because "it's boring" or "I'm terrible at it." Similarly, many people dislike reading books and documents "without pictures," again because "it's hard to understand all those words" or "it's just so BORING."

One of the biggest challenges for a technical writer is integrating graphic elements into documents. Visual representation of data, called *illustration,* is also part of what makes technical writing powerful. Keep in mind that technical documents must be clear, complete, concise, and correct in order to succeed in their purpose. Often, those 4 characteristics are made possible by a writer's use of photographs, tables, charts, drawings, and diagrams – that is, *illustrations* – to supplement the words.

The explanations, examples, and exercises in this chapter aim to help students learn the following skills:

- To recognize the rhetorical situations in which illustrations may be employed
- To consider the common types of illustrations and make appropriate choices
- To correctly introduce and discuss illustrations in documents
- To properly apply captions and citations to illustrations

When should you use illustrations in documents?

Recall that the rhetorical situation refers to the context for which we write. Some academic writing genres – essays, for example – do not lend themselves to illustration as a method of clarification. Other types of writing however, like research articles and technical reports, can be much more effective when illustrations are included. Always consider the *audience* and *purpose* of the document – as well as of the specific information you are presenting graphically – when you consider including illustrations for purposes of clarity and conciseness.

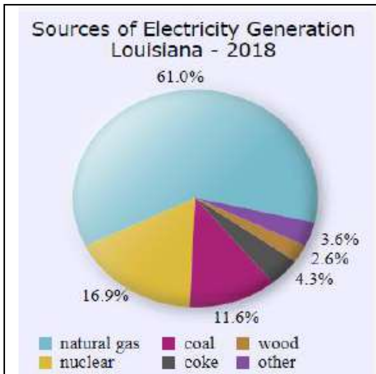
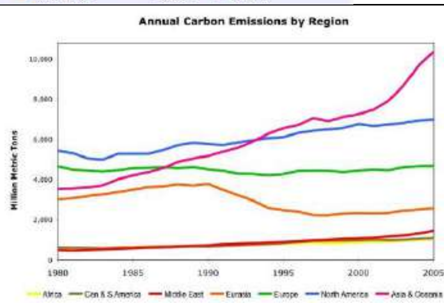
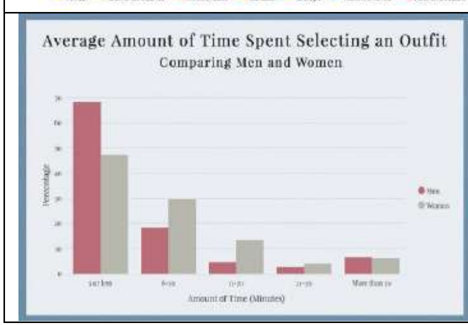
What must a writer consider when choosing illustrations?

Illustration in technical documents is purposeful. Technical writers have no reason to add pictures for decoration of a document: instead, illustrations specifically support the readers' understanding of the writing within the document. Illustrations must therefore be clear and easy to read/understand; and they must depict exactly the information represented by the writer. This chapter includes examples of the two types of illustration technical writers may use:

- Tables: Illustration of data presented in a format of columns and rows; often numeric data but may also be text; and
- Figures: Photos, charts, drawings, diagrams, and graphs – all non-table illustrations

See Table 1 for a brief discussion about some of the information a writer might present in graphic form, together with examples of just a few types of illustrations that may be used.

Table 1: Example forms of illustration

<table>
<tr><td>
</td><td>Pie Charts
Used to show the composition of a total
Allows comparison among the parts of a whole</td></tr>
<tr><td>
</td><td>Line Graphs
Used to show data for multiple categories (here, 7 regions of the world) comparing a single characteristic over time</td></tr>
<tr><td>
</td><td>Bar Charts (or Column Charts)
Used to show comparison of fewer categories (here, men and women) and one variable</td></tr>
</table>

For more detailed description of illustrations, see "Choosing a Good Chart" by noirdream. Additionally, this link presents an infographic sampling of some elements for building graphics, an activity that is outside the scope of this chapter.

How do you integrate illustrations in a document?

Readers must have confidence in the writer and the material provided in the document and supported by the graphics. Use these methods to increase chances of success:

- Introduce illustrations in the text and connect each to the text it supports

- Write and apply accurate captions
- Adequately cite sources of graphic elements
- Select and use only high-quality images that add or clarify information
- Avoid including graphics as filler material

Figure 1 provides an example of an illustration that may be found in a typical scientific document. Please refer to Figure 1 as it is discussed throughout this section.

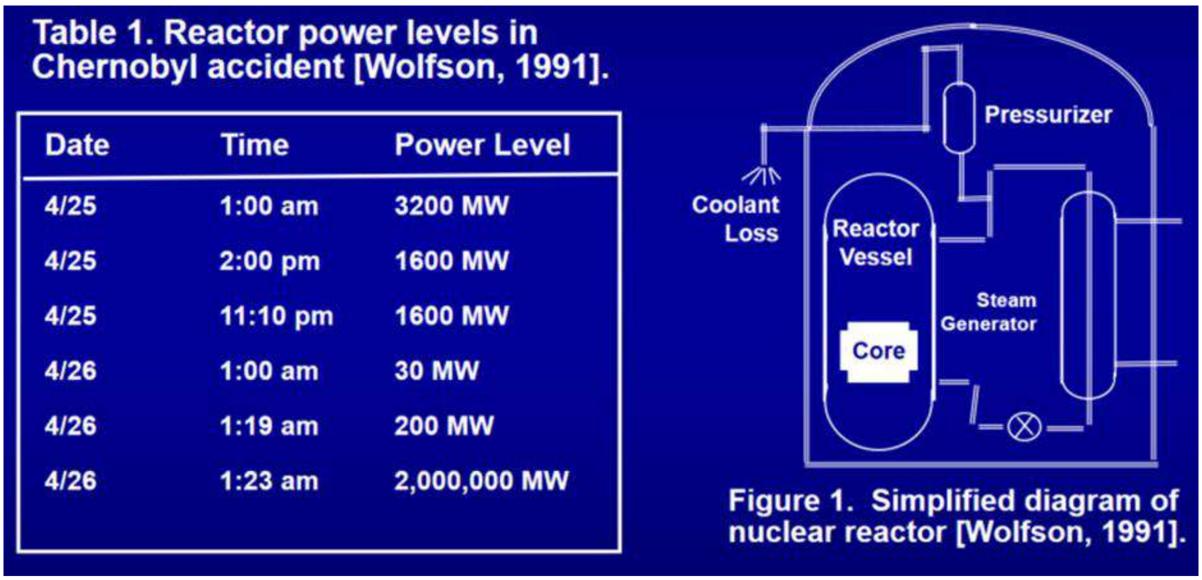


Table 1. Reactor power levels in Chernobyl accident [Wolfson, 1991].

Date	Time	Power Level
4/25	1:00 am	3200 MW
4/25	2:00 pm	1600 MW
4/25	11:10 pm	1600 MW
4/26	1:00 am	30 MW
4/26	1:19 am	200 MW
4/26	1:23 am	2,000,000 MW

Figure 1. Example of two kinds of illustration with citations (Alley, 1996 pp. 146-148).

<u>Introduce Illustrations in the Text and Connect Each to the Text it Supports</u>

Excellent illustrations are those that supplement the text to make the information in a document clear to readers. In other words, a careful writer will not to attempt to include illustrations as replacements for written technical information. Instead, text in the document must introduce the illustration, ideally in the paragraph immediately preceding the graphic.
Signal phrases are often helpful: for example,

> ***As shown below in <u>Figure 1</u>***, *the Chernobyl nuclear reactor is a closed system ….*
> *A comparison of power levels on the accident date* ***(see <u>Table 1</u> below)*** *indicates ….*

Sometimes an illustration's introduction in the text may appear near the end of a page, resulting in placement of the illustration on the next page. Such an instance is not an error or cause for concern: however, it is one reason for careful introduction and captioning of every illustration. Readers must be able to quickly connect the introductory text with the graphic.

Write and Apply Accurate Captions

Every illustration in a technical document must include a caption. Think of this part as an identifier for the image. Captions may be presented in the form of a title or can be one or more sentences long depending on considerations like the complexity of the concept or the graphic.

An accurately written caption is comprised of either 2 or 3 elements:

1. a label (either *Figure* or *Table*) together with a numeric identifier;
2. a brief description of the contents of the graphic; and
3. an in-text citation for graphics created by a source other than the writer.

Note the placement of the captions in the illustrations in Figure 1 above. APA style requires the caption to appear *before* a table. Conversely, a figure in an APA document includes a caption immediately *after* the graphic.

Adequately Cite Sources of Graphic Elements

Throughout this textbook, the importance of choosing integrity is reinforced: indeed, success at any level is impossible without a conscious choice to maintain academic honesty. Just as with any non-original material, the graphic elements writers use to make documents clear, concise, complete, and correct must be attributed to their original sources. As shown in Figure 1 above, in-text citations containing the author's name and the year of publication are provided in the captions. The form of in-text citations varies depending on the style guide a writer uses: nevertheless, in-text citations are required when graphics come from an outside source.

Select and Use Only High-Quality Images That Add or Clarify Information

Technical writers have a powerful tool in illustrations. Graphic elements increase our ability to be clear and concise by presenting information in visual ways that support written text. Successful illustrations are therefore those that are clear; easy to see; unambiguous; properly labeled and/or keyed; and, in many cases, can be printed (if electronic) or reproduced (if published in printed form).

Avoid Including Graphics as Filler Material

Students who are new to the technical style of writing are often challenged by the shift in emphasis from "total-page/word count" requirements to "complete-but-concise" documents. While some specific assignments may allow for limited use of graphics "for looks" – an attractive photo or a logo on a cover, for example – *illustrations* must have a purpose in documents. The purpose of illustrations is never to make a document reach an assigned page count: instead, the only appropriate purpose for using illustrations is to support the written text of the document. Illustrations help make texts clear, complete, concise, and correct.

Chapter Conclusion

Technical writers rely heavily on use of illustrations to ensure documents are clear, complete, concise, and correct for the defined audience and purpose. Simply adding lovely pictures, however, is not illustrating. Instead, introduce illustrations in the text; connect each to the text it supports; provide appropriate captions; cite sources of graphic elements; and select or create high-quality images that clarify information presented in text.

Activity: What are the steps to follow when incorporating graphics in a document?

Read and discuss the following example set of instructions with your classmates as directed by your instructor. Answer the questions and be prepared to discuss your answers in class.

How to Perform an Oil Change

Step 1: Start your car and let it warm up to normal operating temperature.

Step 2: Park your car in a level spot (garages work well) and shut it off. If needed, jack up the front of the car and put in on jack stands.

Step 3: Locate the drain plug. It will be somewhere on the oil pan toward the bottom, and will be the lowest point on the engine.

Step 4: Position the drain bucket under the car so that it can catch oil when the drain plug is removed.

Step 5: Remove the drain plug. Using a ratchet with the correct size socket, turn the drain bolt counter-clockwise until it breaks loose, then use your fingers to turn it out. When it is on the last few threads, be ready to pull it out quickly to avoid hot oil splashing everywhere.

Note: It may be necessary to reposition the drain bucket as the oil drains out.

Step 6: While the oil is draining, clean off the drain plug and any tools that got oil on them with a rag.

Step 7: When the oil is done draining, wipe down the surface around the drain and re-install the drain plug. Turn it clockwise by hand until it contacts the oil pan, then, using a torque wrench, tighten it to the factory spec (see owner's manual).

Note: It is crucial that the drain bolt is tightened to the proper torque. Too tight and it will fall out; too loose and it can strip the threads on the oil pan.

Step 8: Reposition the drain pan so that is directly under the oil filter.

Step 9: Remove the oil filter. Grab it with your hand a twist it counter-clockwise. Once it is off gently set it in the drain bucket or a trash can.

Note: If the oil filter is stuck, either from being too tight or being covered in oil, wipe it clean and use a rubber glove to get a better grip.

Step 10: Install new oil filter. Fill the new oil filter about halfway up with new oil. Then, apply a light film of oil to the O-ring on the oil filter. To install it on the car, thread it on clockwise until the O-ring contacts its sealing surface, then turn it an extra ¾ of a turn.

Note: It may be helpful to mark the oil filter with a marker when it contacts the sealing surface so you can identify where ¾ of a turn is.

Step 11: With the oil filter installed, and the drain plug in and torqued to spec, it is time to add fresh oil. Locate the oil fill cap and unscrew it.

Example continued on next page

Example continued

Note: Depending on the vehicle, the oil fill may be a simple plug that goes in the valve cover, or it may be a tube elsewhere on the engine. Consult your owner's manual for the exact location.

Step 12: Insert a funnel into the fill hole and add the amount of oil specified by the manufacturer (See Owner Manual).

Step 13: Re-install the filler cap and start the car. Let in run for a minute or two, then shut it off, and give it a minute to let the oil make its way back down to the oil pan.

Step 15: Check how much oil the car has. Pull out the dipstick and wipe it clean with a rag. Then, insert it back into its hole all the way, and pull it out. The highest point that the oil got to on the dipstick is how much oil is in the car.

Step 16: Top off if needed. The oil level should be from between about halfway between "L" and "F" to "F".

Note: The distance between "L" and "F" is one quart.

Your car is now ready for another 3000 miles of driving, and make sure to properly dispose of the old oil.

1. Assume you and your classmates are the intended audience for this technical document. Discuss whether you think the instructions are usable as written: why or why not?

2. How might you obtain or create images to use for illustrations in this document? Discuss the subject matter and number of images you think would be appropriate.

3. Locate at least one webpage or electronic document you might consider using as a source for images to illustrate these instructions. Provide the complete URL below and explain your reason(s) for choosing the source.

Homework

Revise the *How to Perform an Oil Change* instructions document to improve its *clarity* and *usability*. You may want to review the “Writing Instructions” chapter as you complete this assignment. Be sure to integrate appropriate illustrations using the conventions provided in this chapter and include an end-of-document references section.

References

Aflafla1, “Louisiana Electricity Generation Sources Pie Chart.” License: CC BY-SA 4.0

Alley, M. (1996). *The craft of scientific writing* (3rd ed.). Springer.

Bellaellaboutique, "Average Time Spent Selecting an Outfit – Men vs. Women." License: CC-BY-SA 2.0.

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Noirdream, “Choosing a Good Chart.” License: CC BY-SA 2.0.

Unit IV: Working With Sources

Choosing Integrity

Selecting a Style Guide

Using Sources

Choosing Integrity

Dawn Atkinson

Chapter Overview

This chapter aims to help you understand what academic integrity is, how to use sources ethically, and how to avoid plagiarism and its consequences. *Plagiarism* is defined as using someone else's text, language, ideas, content, or visuals without acknowledging the source.

What is academic integrity?

Vital to success in college is the ability to demonstrate academic integrity, a term that can be viewed from a number of different perspectives, as the International Center for Academic Integrity (ICAI) makes clear. This organization, which promotes academic integrity initiatives around the world, defines the term "as a commitment to six fundamental values: honesty, trust, fairness, respect, responsibility, and courage" (ICAI, 2021, p. 4). The ICAI emphasizes that students can add worth to their own assignments by upholding these values (ICAI, 2013, p. 16) and explains how the values impact academic work. Specifically,

- "Academic communities of integrity advance the quest for truth and knowledge through intellectual and personal honesty in learning, teaching, research, and service" (p. 18).
- "Academic communities of integrity both foster and rely upon climates of mutual trust. Climates of trust encourage and support the free exchange of ideas which in turn allows scholarly inquiry to reach its fullest potential" (p. 20).
- "Academic communities of integrity establish clear and transparent expectations, standards, and practices to support fairness in the interactions of students, faculty, and administrators" (p. 22).
- "Academic communities of integrity value the interactive, cooperative, participatory nature of learning. They honor, value, and consider diverse opinions and ideas" (p. 24).
- "Academic communities of integrity rest upon foundations of personal accountability coupled with the willingness of individuals and groups to lead by example, uphold mutually agreed-upon standards, and take action when they encounter wrongdoing" (p. 26).
- "To develop and [sustain] communities of integrity, it takes more than simply believing in the fundamental values. Translating the values from talking points into action—standing up for them in the face of pressure and adversity—requires determination, commitment, and courage" (p. 28).

While facilitating an activity at Montana Technological University, the institution's writing instructors found that students, faculty, and staff expanded the ICAI's definition in various practical ways, as the following responses illustrate.

- Activity prompt: What does academic integrity mean to you?
    - "Doing the right thing at the right time *or* getting help if you need it."
    - "It means always doing your own work and asking for help instead of cheating."
    - "Doing the right thing when no one is watching."
    - "Assigning credit to the author of any work."
    - "Respecting yourself [and] your school."
    - "Completing your *own* work honestly."
    - "Being honest [with] yourself [and] those around you [at] all times."
- Activity prompt: When people demonstrate academic integrity, they…
    - "Take pride in their own work by completing the work themselves."
    - "Ask for help from their professors when they need it."
    - "Academic integrity means being honest, earning your grade through hard work, and appreciating yourself and your accomplishments."

Having read through how others define academic integrity, how would you interpret it? In other words, how would you respond to the activity prompts? Record your answers below.

What activities violate the ICAI's definition of academic integrity? Record your answers below.

As the discussion in this textbook section indicates, academic integrity influences and impacts much of what happens in college.

How does a writer use sources ethically?

Most college writing assignments require that students use sources to support their ideas. When *using sources*, writers first locate resources, such as news articles, journal articles, books, reports, and visuals, and then integrate information from the sources into their writing to reinforce, illustrate, and expand upon their points.

To demonstrate academic integrity when using sources, including visuals, writers must acknowledge the origins of the source information in their writing to give its creators credit for producing the work. Although writers may acknowledge sources of information somewhat differently when producing various types of texts, much academic and workplace writing uses citations and references for this purpose. An *in-text citation* is how a source is referred to in the body of a document; an accompanying *reference list*, which is placed on a separate page at the end of a document, provides full bibliographical details for the in-text citations. Hence, citations and references are linked since every reference list entry must have a corresponding in-text citation.

Writers can integrate source information into their documents through quotation, paraphrase, and summary. *Quoting* means to use the exact words from a source; those words must be enclosed in quotation marks (“ ”), and the quotation must be cited and referenced to document its origin. *Paraphrasing*, in contrast, means to express the meaning of a source text in a writer’s own words. An unacceptable paraphrase is one that simply replaces source language with synonyms. When writing an acceptable paraphrase, a writer thinks carefully about what the original text says and then articulates the text’s meaning without looking at the original. The writer also provides an in-text citation and reference for the paraphrased material. Although paraphrasing and summarizing are related, a *summary* focuses only on a text’s main point and excludes any details. A writer summarizes by reading the source text, identifying its main point, articulating the main point without looking at the original, and citing and referencing the source. A summary tends to be shorter than the original source text being summarized because it omits details, whereas a paraphrase is roughly the same length as the original text because it includes details.

When producing written communication in the workplace, employees sometimes extract sections of text from their own companies’ reports, internal manuals, or news releases for use in other company documents to communicate messages in a time-efficient and consistent fashion. The employees are permitted to use this repurposed text, also known as *boilerplate*, without citations, references, or quotation marks because the company owns the text its employees generate on the job.

The following infographic, produced by Indian River State College Libraries (2019), provides further detail about paraphrasing, quoting, and citing. *Infographics* combine text, visuals, and numbers to communicate dense information in quick and easy-to-read formats. Read the infographic carefully, and answer these questions about it.

1. According to the infographic, why should writers cite and reference sources?
2. According to the first sentence of this textbook section, why should writers cite and reference sources?

3. What other reasons can you think of for citing and referencing sources?

4. Why might an infographic be a useful tool for reaching a general audience of readers?

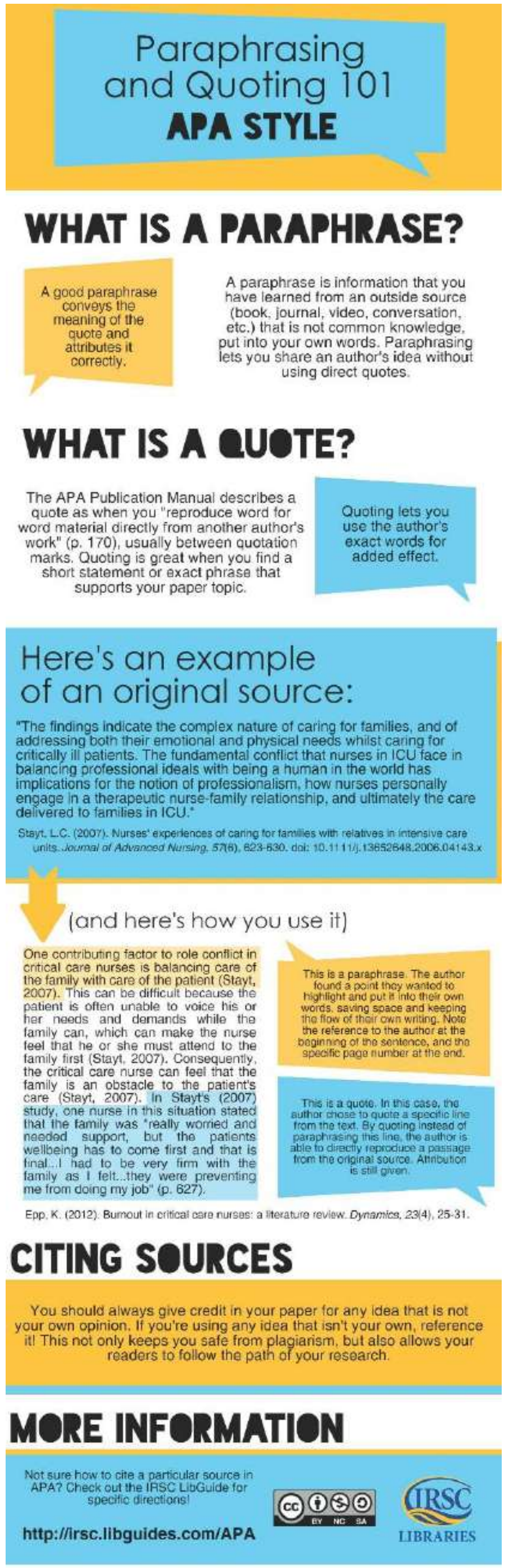


Figure 1. An infographic that focuses on paraphrasing, quoting, and citing

Draw upon the information in this infographic and textbook section to use sources ethically when completing your own work.

What constitutes plagiarism?

To help you understand what constitutes plagiarism, review another infographic produced by Turnitin, a company that sells text-matching detection software and conducts research on academic integrity topics. While reviewing the infographic entitled "The Plagiarism Spectrum" (Turnitin, 2021), which can be found at https://www.turnitin.com/resources/plagiarism-spectrum-2-0, notice what kind of activities are classified as plagiarism. What do you find surprising about the infographic?

The following case studies, which are adapted from Lumen Learning's online course English Composition (n.d., "Defining Plagiarism"), detail other instances of plagiarism. Review these case studies.

Plagiarism Case Studies
Case 1: Last semester you wrote an essay on Emily Dickinson for Professor Berlin's American Literature 101 course. This semester you are taking a course called Interrogating Gender in American Culture, and Professor Arecco has assigned a paper topic that references Dickinson's life and work. It would be very easy for you to re-tool whole sections of your first essay to satisfy the requirements of the second, and you wonder whether it is acceptable practice to re-submit this paper, without checking with either professor, because you are writing a paper for a different professor and a different course. In reality, you must check with both Professor Berlin and Professor Arecco before re-submitting this paper. If you were to superficially revise this paper and submit it without prior approval from both professors, you would be committing self-plagiarism by dual submission; when you are given an assignment in college, the expectation is that you will fulfill the requirements of the assignment by completing new work. If you are given permission to build upon a previously

completed assignment to develop another assignment, your professor may require you to acknowledge this situation in your paper, possibly by citing and referencing your previous work.

Case 2:

You are writing a biology report and you have included information that you read in your biology textbook. You are not sure if this information can be considered common knowledge, or whether you need to cite and reference it.

In reality, you should cite and reference the textbook regardless of whether you quote from it directly. While it is not necessary to give citations/references for certain well-known equations, it is important to acknowledge your debt for any information you did not create independently.

According to information adapted from Penn State University (2017b, "Unintentional Plagiarism - How to Properly Cite a Reference"), the term *common knowledge* refers to any knowledge you can reasonably expect other people to know. For instance, the fact that there are bilingual speakers in the United States is common knowledge. In this situation, you would not have to cite any sources. However, the specific number of bilingual speakers in the United States is not common knowledge. So if you were using any graphs or lists to detail this information, you would need to cite and reference where you found it.

Case 3:

You have cut and pasted information from articles you found on websites into a Word file on your computer. While writing your essay, you patch together pieces from different sources and occasionally lose track of which ideas are your own and which are from various articles. You consider going back to the original sources, but the prospect is daunting. In any case, you figure that if your professor queries your sources, you can say you did not intentionally plagiarize and this will result in a lesser punishment.

In reality, unintentional plagiarism is still intellectual theft, and poor note-taking skills are not a mitigating circumstance when punishment is decided. Here are some tips for avoiding unintentional plagiarism. If you take notes on a computer rather than on paper, create a special folder for citation information. In fact, it would be a good idea to create a number of folders: one for your paper, another for sources, and another for the notes you take from each source. Maintain all the information for the reference list as you go, and even complete citations and references as you are writing to save time and effort later. When taking notes, identify your sources, enclose direct quotes in quotation marks, and duplicate every punctuation mark. Avoid using the author's language when paraphrasing or summarizing information, unless, of course, you quote verbatim from the original. Here is a tip for keeping your ideas separate from those in your sources: either identify each idea as your own, that is, cite yourself, or use a different color or font for your ideas on screen. In addition, print out your sources whenever possible, even when you have a file version on your computer. Working from the paper sources will allow you to check quotations for accuracy.

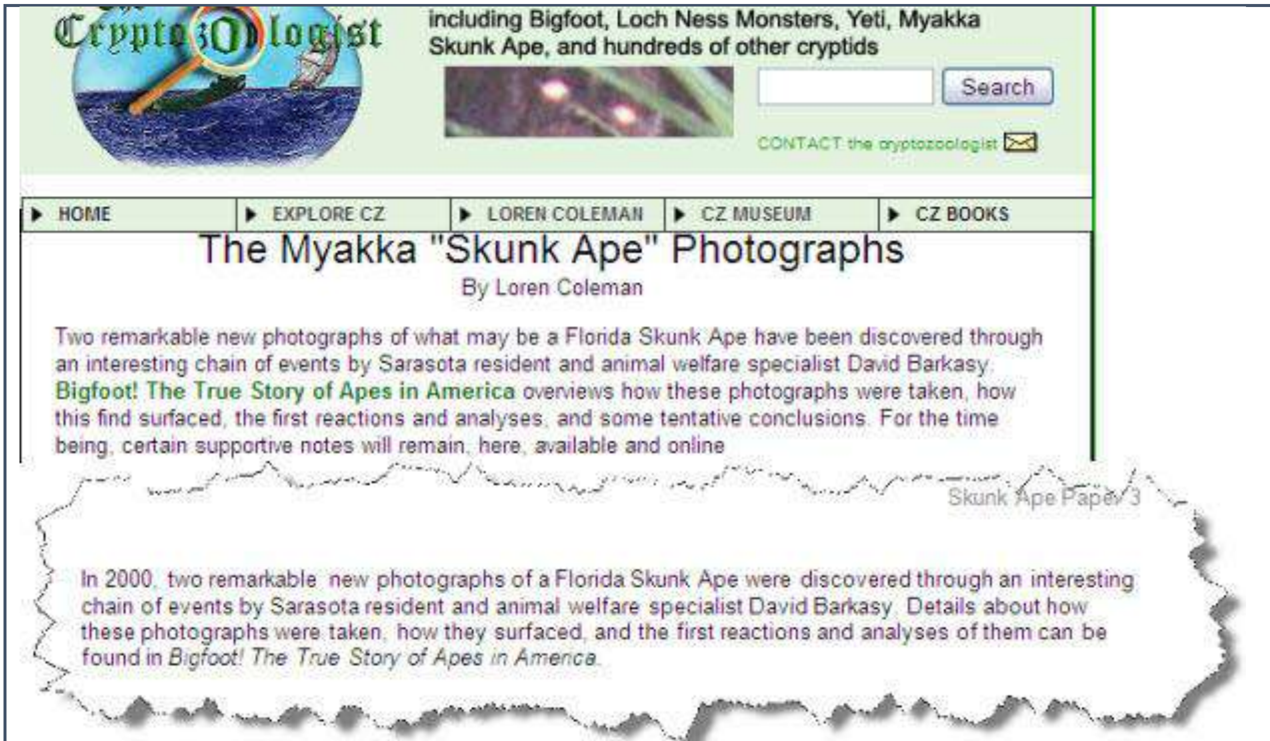
Case 4:

Your professor has assigned a researched argument essay. While looking through a book, you find a quotation that seems to apply to the argument topic, and you plug it into your essay; however, it does not quite relate to the point you addressed previously in the essay, and you do not know how to discuss it. You realize you do not fully understand what the quotation means or how to write about it within the larger context of your essay. You think of approaching your professor to ask for help, but decide that she will think less of you for not grasping the meaning of the text. Instead, you find a website that discusses the idea mentioned in the book, and you summarize its explanation in your paper without citing it. Is this plagiarism?

In reality, even if it is a website, and even if you are summarizing rather than quoting or paraphrasing from the site, you are still using someone else's ideas without acknowledgement. A summary is written in your own words, but it still makes reference to another person's intellectual property. Think of it this way: you are collaborating with the authors of your sources, working with their ideas, and recasting them to develop your own. Finally, never hesitate to ask your professor for help. A professor should be your first and best resource for questions about texts or anything related to your class.

Case 5:

Is this use of information from a website plagiarism?



The Myakka "Skunk Ape" Photographs

By Loren Coleman

Two remarkable new photographs of what may be a Florida Skunk Ape have been discovered through an interesting chain of events by Sarasota resident and animal welfare specialist David Barkasy. **Bigfoot! The True Story of Apes in America** overviews how these photographs were taken, how this find surfaced, the first reactions and analyses, and some tentative conclusions. For the time being, certain supportive notes will remain, here, available and online

Skunk Ape Paper 3

In 2000, two remarkable new photographs of a Florida Skunk Ape were discovered through an interesting chain of events by Sarasota resident and animal welfare specialist David Barkasy. Details about how these photographs were taken, how they surfaced, and the first reactions and analyses of them can be found in *Bigfoot! The True Story of Apes in America*.

In reality, this is an example of plagiarism. Original content appears in the paraphrased version, and the original source is not cited or referenced.

What do you find surprising about the five cases you read?

Now read another case, adapted from a document adapted from a document entitled “Scenario Resource: Sharing or Cheating” (Contract Cheating and Assessment Design, n.d.-b, paras. 2-3). In pairs or small groups, examine the case and complete the following items:

1. What are some of the critical issues in this case?
2. Has Thomas engaged in sharing or cheating behavior?

3. How should the professor respond to each student?
4. How can Andrew be supported in his studies to ensure that he completes his own work and achieves the learning objectives for the course?

5. Present your group's findings in a brief, informal presentation to the class.

Case Study: Sharing or Cheating?
Thomas Anderson is a highly motivated, third-year business student who has consistently achieved excellent results throughout his university studies. His younger brother, Andrew, is less academically oriented, but with Thomas' encouragement has just enrolled in a business class at the same university Thomas attends. Having spent most of the first few weeks of the semester enjoying the business class, Andrew finds himself confused by the requirements of the first assignment just days from the submission due date. Thomas looks at the assignment and is pleased to see that while the questions are different, the content is similar to the one he completed in his first year. He offers his assignment to Andrew to give him an idea of structure and style. Andrew has every intention of completing the assignment himself, but having missed some critical classes is still unable to make much sense of the assignment. He does his best to paraphrase Thomas' work and submits the assignment with just minutes to spare before the deadline. A few days later, Thomas and Andrew receive separate invitations to meet with the course professor to discuss the similarity between their two assignments.

Here is another case, adapted from a document entitled "Collaborating with Integrity" (McGowan, 2016, as cited in Contract Cheating and Assessment Design, n.d.-a, p. 2). In pairs or small groups, examine the case and complete the following items:

1. Does the work belong to Amara?
2. Would it be worse if Amara had outsourced the whole assignment?

3. Would it be worse if Amara had not paid money for the assignment?
4. How can Amara be supported in her studies to ensure that she completes her own work and achieves the learning objectives for the course?

5. Present your group's findings in a brief, informal presentation to the class.

Case Study: Collaboration or Cheating?
Amara Patel is working on an assignment and pays a professional assignment writer to complete parts of it for her. She knows that businesses regularly outsource work, so as long as she pays a fair price, she believes the work belongs to her and she can submit it as her own.

As this textbook section makes clear, plagiarism is a form of cheating. The following list, adapted from Penn State University (2017b, "Student Dialog - What is Plagiarism?"), identifies a number of cheating/plagiarizing behaviors.

- Submitting a paper you have not written as your own original work.
- Copying answers or text from another classmate and submitting them as your own.
- Quoting from another paper, book, journal article, newspaper article, magazine article, or website without using quotation marks and crediting the original author.
- Using long pieces of text or unique phrasings without using quotation marks or indenting the block of text and acknowledging the original source.
- Using data without crediting the original source.
- Proposing another author's idea as if it were your own.
- Paraphrasing by simply replacing source language with synonyms while retaining the original author's sentence structure and sequence of ideas.
- Paraphrasing by restating an original source's ideas in your own words but failing to cite and reference the source.
- Fabricating references or using incorrect references.
- Submitting someone else's computer program or spreadsheet with minor alterations as your own work.
- Using the same paper, project, or something you created previously in school for a current college course without permission.

These are cheating behaviors, according to information adapted from Penn State University (2017b, "Student Dialog - What is Cheating?," "Student Dialog - What is Plagiarism?"), because they wrongly take credit for work produced by others. *Academic cheating* happens when students copy answers on exams or homework assignments; buy papers; arrange for other people to complete work on their behalf; obtain copies of exams, homework assignments, notes, or other academic work and use them as their own; or share assignments with other students with the result that the recipients submit the work as their own. Although this is not a definitive list, know that any action that takes credit for another's work can be construed as plagiarism or cheating. However, things like studying in groups and copying a classmate's notes from a lecture you missed are not necessarily acts of plagiarism or cheating. If you have any questions about whether working together and sharing notes is acceptable, ask your instructor. It is better to ask for clarification before you do something than to have to defend your actions later.

To draw this section to a close, plagiarism and cheating are wrong because they are behaviors that seek to gain advantage over others by deception. They have far-reaching consequences, according to information adapted from Penn State University (2017b, "Why Plagiarism and Cheating are Wrong"), which include loss of academic and professional reputation, receipt of failing grades, expulsion from college, withdrawal of diplomas, and damage to career prospects. These behaviors also disrespect peers who complete their own work and earn their grades fairly, cause others to question the reputation of a dishonest student's educational institution, show disrespect for instructors who trust that students will complete their own work, and prevent deceitful students from learning and practicing skills they will likely need in their future careers.

Stanford University's Office of Community Standards, Student Affairs (n.d.) lists sample plagiarism cases and accompanying sanctions for the cases. Read this information, which can be found at https://communitystandards.stanford.edu/policies-and-guidance/what-plagiarism/sample-plagiarism-cases, and work in pairs or small groups to complete the following items.

1. Based on the information in this chapter, do you think the punishments are reasonable? Why or why not?

2. Share your group's ideas with the class.

How does a writer avoid plagiarism and its consequences?

Penn State University (2017a, "How You Can Avoid Situations that Lead to Academic Dishonesty") recommends that students avoid situations that lead to academic dishonesty by doing the following.

- Be proactive. If you do not understand an assignment or are unclear about your instructor's expectations, ask early in the semester.
- Plan ahead. Look at the workload for all your courses. When are your assignments due? How much work will each take? What can you start on right away?
- Know where to find information and resources, such as guidance on citation and referencing and university policies about academic integrity.

What can you add to this list? Work in pairs or small groups to brainstorm a checklist to help students avoid plagiarism. Refer to the guidance provided in the current chapter as needed when compiling the list.

Homework: Discuss Your Commitment to Academic Integrity in a Letter to Your Instructor

Write a block-formatted letter to your instructor in which you address the following question: How will you demonstrate that you have developed a personal commitment to academic integrity and professionalism? You may discuss the guidance provided in this chapter when writing your letter, but remember to cite and reference any outside sources of information you use. Consult the "Organizing Paragraphs" and "Writing Print Correspondence" chapters of this textbook for help when writing and formatting your letter.

Once you have drafted your letter, use the following handout (McKeever, n.d.) to edit and proofread your work.

Yuba College Writing & Language Development Center

Editing and Proofreading Strategies

Editing is the correction of mechanical errors like grammar, punctuation, and spelling; and of mistakes such as omitted or repeated words and typing errors. When you proofread you double-check that all these errors, as well as spacing and formatting problems, have been corrected. In the writing process, editing and proofreading come last, after revising. When you proofread, you are not just looking for errors in this paper; you are also identifying your bad habits to avoid them in future writing.

Review old papers

Pull out old papers and review the instructor's comments. Which errors seem most frequent? Comma splices? Fragments? Word choice errors? Make a list of your own most troublesome areas. You will read separately for each one. (See below, Look for one thing at a time.)

(Note: If your instructors have frequently suggested that it is your clarity, your organization or your argument that is the problem, you may need to go back a couple of steps in the writing process to revise first. You may not be ready to edit.)

Create distance

Psychological distance from the text is the reason a second proofreader can find errors you have missed. A second reader doesn't have any strong ego-involvement in the writing and can be more objective. A second reader doesn't know as much about your thoughts as you do, and therefore stumbles over unclear or awkward places that you might skim past.

Nevertheless, proofreading is primarily your job, so to create some distance, set your text aside for a while (fifteen minutes, a day, a week—whatever you can afford) before editing or proofreading. Watch TV, do your math, ride a bike. Avoid thinking about your paper. Then, when you come back to it, you will be more likely to catch errors.

Of course, you can't afford to do this with a last-minute paper. So don't wait until the last minute.

Use your ear

If your mind is wandering, read aloud, but slowly, one word at a time. Sometimes your ear catches errors that your eye misses. Be vigilant to make sure you read what you actually have written, though, not what you meant to have written. Don't read *says* if you wrote *say*.

Work from paper

Watching yourself typing on a computer screen does not constitute proofreading. Proofread from paper. If you are fatigued, try enlarging the font or changing fonts temporarily. Seriphed fonts like Times are easier to read on paper than sans-seriph fonts like Ariel.

Read slowly, one word at a time. To force yourself to slow down, use a pointer, a blank sheet of paper or ruler to cover up lines. This may keep you from skipping past errors.

Look for one thing at a time

You should read your paper several times, each time editing for one particular error. For example, if you know you have a history of creating fragments, read once looking only for fragments. Correct them as you go. If you know you tend to mix up *there* and *their*, read separately for just that error. Here are other commons errors to watch for on separate reads:

To catch ***spelling or word choice*** errors, read each word individually from the end of each line to the beginning. Computer spell checkers won't catch sound-alikes such as *they're, their*, and *there*, or errors such as typing *he* for *the*. (Spell checkers are interactive--you have to choose the right word each time it stops. There's no getting around it—you have to learn the difference between words like *were* and *where*. A grammar handbook or dictionary can help.)

If you confuse ***plurals and possessives***, skim looking only for words that end in *s*. If a word ends in *s* because it is plural, there should be no apostrophe. If the word indicates possession or is a contraction of two words, it needs an apostrophe. *Its*, as in *The radio station is holding **its** fundraiser*, is analogous to *his* or *hers*—no apostrophe.

If you tend to make errors in ***subject-verb agreement***, go through one sentence at a time and identify the simple subject and main verb in each. Do the subjects and verbs go together? You can't write, "Experts says" or "Everybody know."

For ***pronoun*** problems, skim line by line and stop at each pronoun. Find the noun that the pronoun replaces. If you can't find it within the sentence, or at most within a sentence or two preceding, replace the pronoun with a noun. If you find the noun the pronoun refers to, but there are other nouns nearby and it might be unclear which you're talking about, replace the pronoun with a noun. Be sure every noun agrees in number and person with its corresponding pronoun. Look especially for *they, their,* and *them*—they are plural pronouns and must refer to plural nouns. *Anyone, everyone*, and *everybody* are singular. You can't write, "Every*body* has *their* books." (Well, you can say it; you just can't write it.)

Fragment errors are sometimes heard better than seen. Read your paper aloud. Stop at every period and take a breath; can your ear find the fragments? Pay special attention to sentences that begin with subordinating words, such as *because, if,* or *when*. Watch for phrases like *for example* or *such as* or phrases starting with *–ing* adjectives. Decide if a fragment might be just a piece of the preceding or next sentence. If so, connect it. Or add the missing subject or verb or remove the subordinating conjunction.

Run-on sentences are not long sentences; run-ons are punctuated wrong. In particular, a comma is not strong enough to join two independent clauses. If you tend to create these comma splices, start with the last sentence of your paper and work your way back to the beginning, stopping at every comma. Is there an independent clause on both sides of the comma? If there is, the comma must be accompanied by a coordinating conjunction or replaced by a semicolon or a period.

An ***omitted comma*** can result in another kind of run-on. To find omitted comma errors, skim for the conjunctions *and, but, for, or, nor, so,* and *yet*. See whether there is a complete sentence on each side of the conjunction. If there is, place a comma before the conjunction.

To find ***introductory comma*** errors, read the first few words of each sentence. Look for subordinate conjunctions such as *because* or *when*; transition words such as *nevertheless* or *however*, phrases such as *serving four years in the Navy*; or prepositional phrases such as *in contrast* or *about two years ago*. Place a comma at the *end* of the introductory word, phrase or clause, and *before* the independent clause.

Awkwardness can result from ***parallel structure*** errors. Find these by skimming for key words that signal parallel structures: *and, or, not only...but also, either...or, both...and....* Make sure that the items connected by these words are in the same grammatical form: *golf, basketball, and soccer* is parallel; *golfing, basketball, and to play soccer* is not.

Contributed by Rosemary McKeever

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Selecting a Style Guide

Stacey Corbitt

Chapter Overview

Students can be perplexed by the rigor applied to citing sources in research writing. Often they wonder how useful their work is when it seems like there are in-text citations on every other line: it may suggest (to the inexperienced student) they didn't employ any original thought when writing the research report. However, experts and novices alike recognize the need to give credit to their mentors and colleagues. It is no surprise that different fields follow different methods of acknowledging sources: however, the challenge of following a style can be knowing its rules. This chapter aims to help students understand how to select and adhere to a citation and referencing system that meets the needs of their assignments as well as the standards of professionalism required by their fields of study and work.

Michael J. Klein and Kristi L. Shackelford published an essay in 2011 introducing the importance of document design. Read the following excerpt from their chapter in *Writing Spaces: readings on writing* (Volume 2, pp. 340-341) and discuss your experience as a writer.

> **The Basics of Style Guides**
>
> Style guides are collections of conventions on everything from word choice to format gathered into one place and used in writing. Their primary purpose is to ensure that all documents in a given environment adhere to a certain look and consistent use of language, but they serve a much broader purpose.
>
> Style guides eliminate the guesswork in areas of writing that have multiple options. For example, both *advisor* and *adviser* are accurate spellings of a word; a style guide specifies which instance is preferred for the document you are writing. Style guides assure consistency in an organization's publications, such as placing the titles and page numbers in the same area of the page for all documents. Finally, they make reading and comprehension easier for the audience by presenting similar information in similar ways. Readers who want to view the source material you've used in a paper, for example, will refer to your list of authors and publications. The format and even the title of this section will vary depending on the style guide you've chosen. The "Works Cited" or "Reference" pages provide the information on all referenced documents in a presentation different from the main text, making it easy to identify.
>
> Most academic disciplines follow a style guide. In addition, many companies and academic institutions establish their own style guides to supplement established style guides.

Does your university or organization have a specific style guide representatives are expected to follow when publishing work? How can you find out if you don't already know the answer? Which (if any) of the commonly-used style guides in Table 1 below have you encountered in previous courses? What do you remember or know about the assignment(s) and why that style guide was used? Be prepared to discuss your responses in class or as directed by your instructor.

Table 1. Selected commonly-used style guides

Style	Organization	Fields where used	Features
AP	Associated Press	Print journalism; public relations	Quotations and paraphrases are integrated using signal words but without citations or reference list
APA	American Psychological Association	Academics; social sciences; business; some engineering; and education	In-text citations with publication date focus (*Author, year*); reference list alphabetical by authors' surnames
Chicago (CMOS) or Turabian	University of Chicago Press	(i) Humanities; and (ii) social sciences and sciences	2 systems: (i) *notes and bibliography* (footnotes /endnotes with superscript numbers); and (ii) *author-date* (in-text citations similar to APA)
CSE	Council of Science Editors	Physical science; natural science; and mathematics	3 systems: *name-year* (like APA); *citation-sequence* (like IEEE with superscript numbers); and *citation-name* (citations and reference list alpha by authors' surnames with superscript numbers)
IEEE	Institute for Electrical and Electronics Engineers	Technical fields; some engineering; and computer science	In-text citations with bracketed numbers referencing bibliography entries; numeric reference list in order sources appear in text
MLA	Modern Language Association	Humanities, especially language and literature	*Author-page* in-text citations; works cited list alphabetical by authors' surnames

Style Guides and Source Identification

Academic and professional writing that makes an argument usually provides evidence to support that argument. In some research writing, evidence may be the original information the author(s) found through their primary discovery processes. Most research reporting, however, relies on at least some evidence the authors obtained from the findings published by other experts in the same or related field(s). All evidence – whether quoted, paraphrased, or summarized – originally developed by another scholar must be attributed to that original source. The attribution of source material is an in-text citation placed by an author in a document at the point where the sourced material is provided.

Activity: Identify a Style by Examining its In-Text Citation Method

Consider the following example (St. Amant, 2020, p. 149) of attribution using in-text citation:

> Who is your audience/for what culture are you writing?
>
> All cultures have *rhetorical expectations*. The members of a culture generally expect messages to be structured in certain ways and contain particular information to be considered credible or worth using (Campbell 36-44; Driskill 26-33). These expectations are deep-seated and exist beyond the language a person speaks. Thus, they affect how members of a culture view a message (i.e. whether it is credible and usable), regardless of the language it is in (Ulijn 80-81). This is important, for you might be using a common language—your native tongue—to craft messages for other cultures. But, doing so can lead to the assumption that strategies you use to present information in your own culture can be used with other cultures. That would be incorrect.
>
> Here's the issue: cultures can have different perceptions of what constitutes a credible presentation of information (St.Amant, "Globalizing" 51-52). Cultures often use different rhetorical approaches to craft and evaluate messages. If individuals know the culture for which they are writing, they can research the rhetorical expectations that culture associates with credible messages and usable texts. Writers can use this information to craft messages that meet the rhetorical expectations of the intended cultural audience (Woolever 48-49).

Review the passage again carefully and highlight each in-text citation. How many different sources were attributed in the passage? What information is included in the citations?

Now, compare the information in your answer above to the "Features" column in Table 1. Which style guide do you think the author was using? Explain your answer.

Style Guides and Reference Usability

In addition to in-text citations, style guides provide conventions for listing complete references at the end of a document so readers may access the same information writers used as evidence to support their claims. Consider the excerpt below (St. Amant, 2020, p. 159) from the reference list for the passage you read and highlighted above:

WORKS CITED

Berkenkotter, Carol, and Thomas N. Huckin. *Genre Knowledge in Disciplinary Communication: Cognition/Culture/Power*. Routledge, 1995.

Campbell, Charles P. "Rhetorical Ethos: A Bridge Between High-Context and Low-Context Cultures?" Niemeier, et al., pp. 31-47.

Driskill, Linda. "Collaborating Across National and Cultural Borders." *International Dimensions of Technical Communication*, edited by Deborah C. Andrews, Society for Technical Communication, 1996, pp. 23-44.

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

St.Amant, Kirk. "Globalizing Rhetoric: Using Rhetorical Concepts to Identify and Analyze Cultural Expectations Related to Genres." *Hermes - Journal of Language and Communication Studies,* vol. 37, 2006, pp. 47-66.

—. "Reconsidering Social Media for Global Contexts." *Intercom,* April 2015, pp. 16-18.

Ulijn, Jan M. "Translating the Culture of Technical Documents: Some Experimental Evidence." *International Dimensions of Technical Communication*, edited by Deborah C. Andrews, Society for Technical Communication, 1996, pp. 69-86.

Woolever, Kristin R. "Doing Global Business in The Information Age: Rhetorical Contrasts in the Business and Technical Professions." *Contrastive Rhetoric Revisited and Redefined,* edited by Clayann Gilliam Panetta, Routledge, 2001, pp. 47-64.

If you determined based on your review of the in-text citations that the author Kirk St. Amant followed MLA style, you can probably assume the reference list ("Works Cited") is likewise presented using the MLA style guide: an individual document should adhere to only one style guide. What conventions does the list employ to indicate the author followed MLA guidelines?

Finally, notice in the Works Cited list that the author listed two different documents he wrote and published previously: in other words, he cited himself. For the second citation, he omitted his name as the author, as provided by MLA style. Using the link provided in Table 1 or another source of information about MLA style, search for the part of the style guide that provides for the omission of the author's name in a second or subsequent work included in a reference list.

Answer the following prompts, including citation(s) for where you found the answer(s), and be prepared to discuss your findings with your classmates.

1. Did Kirk St. Amant cite his own previous work properly in the passage? How do you know?

2. Did he list his own previous publications in the Works Cited list properly? How do you know?

3. Why should an author cite him/herself in an original piece of work? Be prepared to discuss.

Style Guides and Document Formats

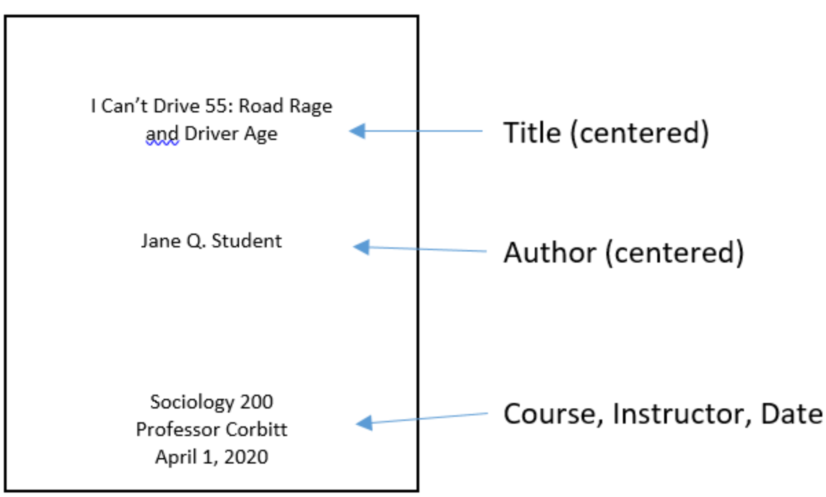
Style guides are developed, maintained, and updated for use by various professional and academic organizations in an effort to make publications more uniform and, in turn, more accessible to broad audiences. In your own field of study, you may find that a certain style guide becomes familiar to you simply because your research activities lead you to discipline-specific publications that employ a particular style guide most of the time. As you have explored in the activities so far in this chapter, in-text citations may give readers good clues about the style guide an author has followed; and examining reference lists may support your guess at what style guide was used. In terms of academic writing and professional publications, however, the third component of most style guides is even more specific and telling about the style a document follows. That component addresses the ways in which authors *format* a document.

<u>Document Formats for Student Writers</u>

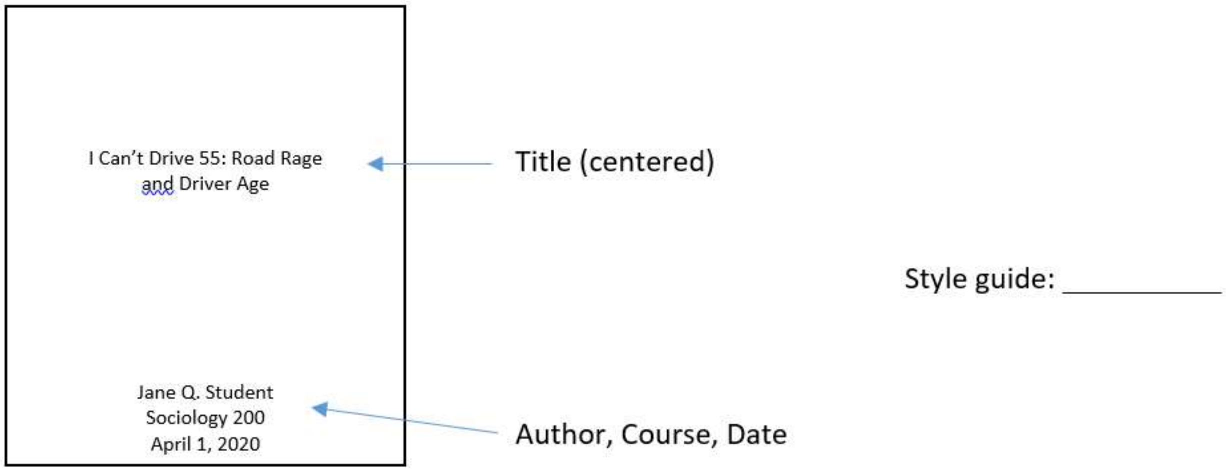
As a pre-college student, you may have been required to write and submit papers using MLA format. In college, the required format for papers may have changed to APA format. Whatever your own situation, you know that parameters were set for things like in-text citations; lists of references used in your research; and formatting, which describes the way your paper looks on paper. Some style guides provide extensive details about formatting, while others provide few details or none at all. As a college student, however, it is imperative that you demonstrate your ability to follow directions and pay attention to detail. One way to exercise these abilities is to carefully follow assignment specifications, particularly as they relate to formatting reports, essays, and other assigned documents according to the conventions of a prescribed style guide.

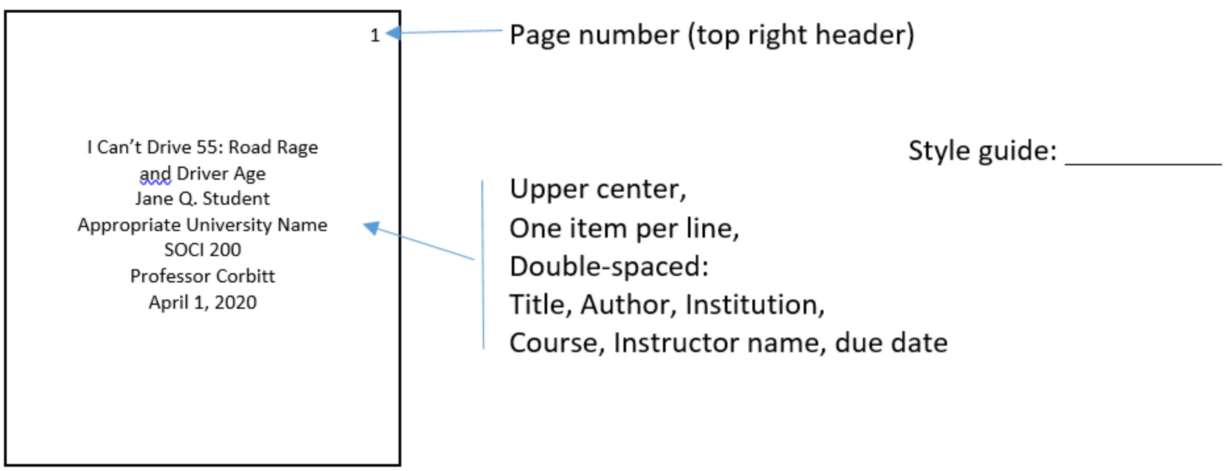
Activity: Formatting Requirements for Title Pages

Using the links in Table 1, a college writing handbook, or online student writing guide of your choice, identify the style guide represented by each of the following three title page layouts:



Style guide: ___________





Clearly, the variations among style guides are not extreme – but, each is different. Recognizing and adhering to those differences is significant for students to demonstrate sufficient attention to detail resulting in writing that is complete and correct.

Document Formats for Professional Publications

Your instructors will probably provide you with the details necessary to complete your assignments using the appropriate style guides and other specifications. In part, teachers make such efforts to help students prepare for world of work situations in which such guidelines must be discovered as part of the process of preparing documents for publication. Following are some examples of professional situations you may encounter.

Peer-Reviewed Research Journals
Some universities offer opportunities for undergraduate students to participate in scholarly research as part of a team. In those instances, the resulting research report may be submitted for publication in a peer-reviewed journal. Such publications vary widely on specifications for manuscripts, but one constant remains: they all have some required set of conventions.

- The Journal for Obstetric, Gynecologic, and Neonatal Nursing (JOGNN), for example, specifies the use of APA style for particular portions of manuscripts submitted for possible publication.
- Other professional journals, such as Advances in Mechanical Engineering (AIME), may be published by a company that has its own customized variation on a standard style guide. In the case of AIME, for example, the Vancouver style customized for the publishing company Sage Publications is required.

Branded Corporate Documents

Companies other than publishing houses also rely on style guides to ensure communications and branded activities send consistent, high-quality messages that present the entity in favorable ways. For example, specific color formulations, fonts, capitalization and abbreviation standards may be specified in publication guides to which employees must carefully adhere. Logos and all manner of presentation formats may be available in a company's intranet, and all company representatives access and use those templates for business purposes. Generally regarded as intellectual property of an organization, examples are difficult to find for use here. You should ask about company style sheets and approved templates when you begin working for an employer so you will be prepared for any writing tasks on behalf of the company.

Professional and Academic Organizations

The technical writing style guide identified above in Table 1 as "IEEE" was first developed specifically for publication of documents in connection with the organization that created and maintains the style: that is, the Institute for Electrical and Electronics Engineers. While the style guide itself is preferred by many different types of professional engineers, it is *required* for "IEEE Transactions, Journals, and Letters" (IEEE, 2019, p. I-3). IEEE and some other organizations, including many universities, have robust collections of templates, logos, and specifications that make up their style guides.

Chapter Conclusion

The point to remember is that there is almost always a style guide you should follow in preparing an academic or professional technical document. In an assignment, the style guide is often specified; but in professional writing situations, you may need to look for the guidelines – and they might be very specific to the publishing organization. Writers will always do well to search for the answer to "what's the style guide to use?" and also to obtain a copy and follow it carefully. Never make it easy for anyone to discount what you write because you failed to adhere to specifications.

Homework

After 10 years of learning and adhering to The Publication Manual of the American Psychological Association (6th Edition), students and professional writers are now adjusting to the updated 7th Edition, published in October 2019. Focus on practicing how to write reference list entries for different types of sources in accordance with APA style.

1. Work with a partner in class to locate and download an example of each document type listed below:
    - a webpage authored by an organization
    - a journal article
    - a book
    - a government agency report
2. Use the handouts provided in the following several pages to carefully format the reference list entries for each of the sources you downloaded.
3. Draft a References page using the entries you formatted.
4. Exchange lists with your partner from Step 1 and conduct a peer review as directed by your instructor.

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LIBRARY

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7th Edition APA Reference List Citation – Webpage Group Author

http://www.alverno.edu/media/alvernocollege/library/pdfs/apa7webpagegroup.pdf

Group author

Date

Title of webpage in *italics*

World Health Organization. (2018, December 13). *Adolescents: Health risks and solutions*. https://www.who.int/news-

.5"

room/fact-sheets/detail/adolescents-health-risks-and-solutions

Webpage URL

Hanging indent – use a .5" hanging indent for all reference list citations. Not sure how? This handout has directions.

Author – group authors can include government agencies, associations, and organizations. List the group as the author if the group, rather than a person(s), is responsible for the webpage content. Do not abbreviate the group's name in the reference list.

Date – use the specific date that the webpage was published, last updated, or revised. Do not include the date of "last review" in the reference list. If the webpage has no date, use (n.d.).

Title – capitalize the first word of the webpage title, first word of a subtitle (usually after a colon ":"), and proper nouns.

Name of website – omit the name of the parent website if it is already listed as the author.

Web address (URL) – provide the URL for the webpage (rather than the parent website). Omit the words "Retrieved from".

3/9/20 DS; U:\Library\APA\APA 7th edition\Parts of a citation

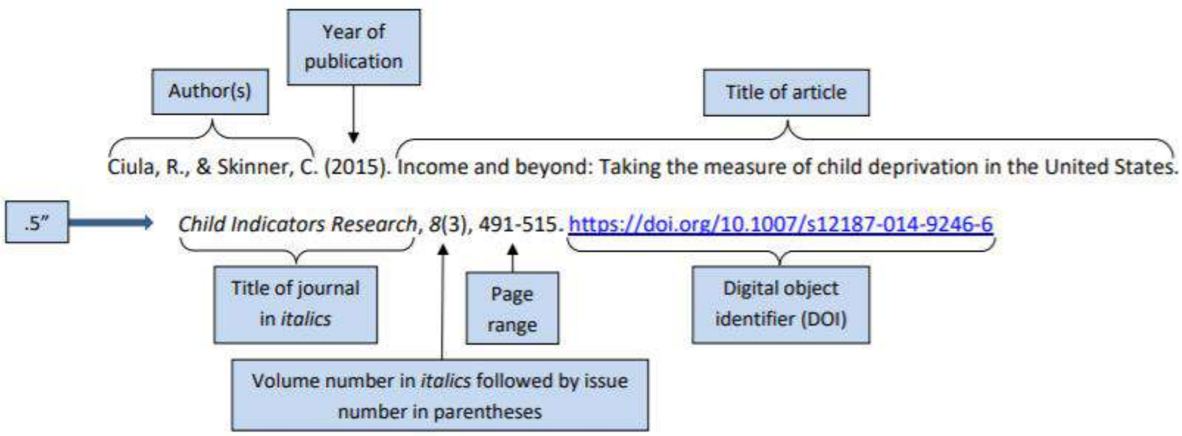
ALVERNO COLLEGE

LIBRARY

Discover - Learn - Create

7th Edition APA Reference List Citation – Journal Article

http://www.alverno.edu/media/alvernocollege/library/pdfs/apa7journal.pdf



Hanging indent – use a .5" hanging indent for all reference list citations. Not sure how? This handout has directions.

Authors – do not spell out an author's first or middle name or include their credentials. For two to twenty authors, an ampersand "&" precedes the last author's name. More information for citing multiple authors is in the APA Style Blog.

Article title – capitalize the first word of the title, first word of a subtitle (usually after a colon ":"), and proper nouns.

Journal title – capitalize all major words.

Volume and issue number – include both if present. There is no space between the volume and issue number.

DOI – format DOIs as a hyperlink beginning with: https://doi.org/ If there is no DOI, end the citation after the page range.

3/6/20 DS; U:\Library\APA\APA 7th edition\Parts of a citation

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LIBRARY

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7th Edition APA Reference List Citation – Book

http://www.alverno.edu/media/alvernocollege/library/pdfs/apa7book.pdf

Author(s) | Year of publication | Title of book in *italics* | Edition (other than the first)

Pan, M. L., & Baden-Campbell, M. (2016). *Preparing literature reviews: Qualitative and quantitative approaches* (5th ed.).

.5" Pyrczak.

Publisher

Hanging indent – use a .5" hanging indent for all reference list citations. Not sure how? This handout has directions.

Authors – do not spell out an author's first or middle name or include their credentials. For two to twenty authors, an ampersand "&" precedes the last author's name. More information for citing multiple authors is in the APA Style Blog.

Titles – italicize the title. Capitalize the first word of the title, first word of a subtitle (usually after a colon ":"), and proper nouns.

Edition – include a notation for editions that follow the first (2nd, 3rd...) but do not include a notation for the first edition.

Publisher – include the publisher name but not the location. Omit superfluous terms such as **Inc.** or **Co.**

3/6/20 DS; U:\Library\APA\APA 7th edition\Parts of a citation

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LIBRARY

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7th Edition APA Reference List Citation – Government Agency Report

http://www.alverno.edu/media/alvernocollege/library/pdfs/apa7report.pdf

Author | Date | Title of report in *italics* | Report number | Parent government body

National Cancer Institute. (2019, January). *Caring for the caregiver* (NIH Publication No. 18-2059). U.S. Department of Health

.5" → and Human Services, National Institutes of Health. https://www.cancer.gov/publications/patient-education/caring-for-

the-caregiver.pdf

Subdivision | Report URL

Hanging indent – use a .5" hanging indent for all reference list citations. Not sure how? This handout has directions.

Author – for agency authored reports, list the most specific agency as the author. Do not abbreviate an agency's name in the reference list.

Date – use the specific publication date of the report.

Title – capitalize the first word of the report title, first word of a subtitle (usually after a colon ":"), and proper nouns.

Report number – if there is a report or publication number, provide it directly after the report title.

Parent agencies – if present, list the multiple layers of government agencies. The larger parent body precedes the subdivision.

Web address (URL) – provide the URL for the report. Omit the words "Retrieved from".

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St. Amant, K. (2020). Writing in global contexts: Composing usable texts for audiences from different cultures. In D. Driscoll, M. Stewart, & M. Vetter (Eds.), *Writing spaces: Readings on writing* (Vol. 3, pp. 146-161). License: CC-BY-NC-ND 4.0. https://writingspaces.org/node/1717

Using Sources

Stacey Corbitt

Chapter Overview

Are you good at doing research and using sources with in-text citations and a references list? Don't panic. Most first- and second-year college students are unsure how to answer that question. You may have learned the basics about using quotation marks and giving credit to original authors. You might not have used those skills since your senior year of high school. Whatever your personal situation, using sources well takes a lot of practice.

Integration of source material sets you apart from less accomplished writers. From slight improvements in quotation integration to more powerful skills of summarizing and paraphrasing, the best way to unleash the power of your research findings is to synthesize that information correctly into a document. Conversely, using sources incorrectly is quite simply the easiest way to fail, to commit violations of academic integrity policy, and to get expelled or fired. Ownership of ideas may vary across cultures, but giving credit to the original source of an idea is consistently required.

This chapter aims to help students learn to integrate source information into documents with attention to accuracy, readability, and integrity with the goal of improving the audience's ability to understand and use those documents efficiently. Topics covered in this chapter include methods of integrating source information, testing for common knowledge exemption, and responsible citing and referencing of sources.

What are the most useful methods of integrating sources?

As students develop writing skills in middle school and high school – perhaps even earlier in some education programs – they begin to learn the fundamental concepts of research and citing sources. Those fundamentals may begin with searching for, locating, and reading information published by *sources*; and using that information to expand the students' understanding of a topic. In academic writing, the original author or creator of text or other mediums from which evidence is drawn by a writer in the form of a quotation, paraphrase, or summary is referred to as the *source.*

As you proceed toward becoming an academic writer, you will begin to recognize how source information can offer valuable opportunities to *synthesize* ideas for your own writing. *Synthesizing* in writing refers thinking critically about source material in order to develop one's own ideas and words about the subject studied. Ultimately, college students progress to the practice of using source material as evidence to support the claims they make in their academic writing.

Quoting

For beginners, *quoting* is often the first lesson in using sources. You are *quoting* when you incorporate the exact words of a source into written text. This chapter assumes you have had some practice with using direct quotations: that is, you understand the concept of plagiarism at least to the point of knowing it is a serious ethical violation. Also, you have likely learned that, when including the exact words of a source in your writing, the words must be enclosed in a set of quotation marks ("__"), with the exception of long quotations (as discussed below).

What may be surprising new information for you is this: quotations are only an appropriate way to integrate source information into your writing in a small number of situations. Specifically, quoting sources is usually limited to instances when: 1) all the detail presented in the source text must be carefully preserved; and 2) the source's exact wording is required.

Short Quotations

Formatting quotations (beyond sentence-level punctuation) for inclusion in an original text varies a bit depending on the rules of the style guide applied to the writing. Generally, short quotations should be set off by quotation marks but be written in line with the text they relate to and in the same font and typeface. Consider the highlighted section of the following example:

> In his essay *Glamour Magazine* published as an article, the President sympathized with other professionals who are commuting long distances while maintaining a family life. "It's often meant I had to work even harder" he explained, "to be the kind of husband and father I want to be." (Obama, 2016)

In the example above, 21 exact words were quoted from the original source. Because its length (fewer than 40 words) categorizes the passage as a short quotation, it is set off with quotation marks but inserted directly in the flow of the writing that surrounds it. An APA-style in-text citation appears immediately following the quoted material. Later in this chapter you will learn about introducing the quoted material using *signal phrases*, as well as using *reporting verbs* like the ones used here.

Long Quotations

APA formatting requirements change at the point a quotation becomes *long*: that is, 40 words or more. A long quotation should be presented in a block-formatted style with a ½ - inch indentation on the left. Long quotations in APA style are double-spaced if the document is double-spaced (as with an essay). Notice in particular that quotation marks are not used to surround a long quotation. Consider the following example:

In his discussion at the first United State of Women Summit, Obama reflected on the profound effects of gender roles that begin at birth:

> We know that these stereotypes affect how girls see themselves starting at a very young age, making them feel that if they don't look or act a certain way, they are somehow less worthy. In fact, gender stereotypes affect all of us, regardless of our gender, gender identity, or sexual orientation. (Obama, 2016)

[Beginning of a new paragraph]. [If the quotation appears in the middle of a paragraph, do not indent the first line following the block quotation].

Making Adjustments

Sometimes the perfect words that make a writer choose to quote a source are only <u>almost</u> perfect. When removing unnecessary words or details to make the quotation more clear, use *ellipses* (…). Give it a try: read the following passage and <u>remove</u> the list from the end of the first sentence, making sure the passage is clear in your rewrite.

> I've witnessed how women have won the freedom to make your own choices about how you'll live your lives—about your bodies, your educations, your careers, your finances. Gone are the days when you needed a husband to get a credit card. In fact, more women than ever are financially independent. (Obama 2016)

Similarly, when adding an explanatory word or phrase needed to make the meaning of the quotation clearer, use *brackets* ([___]). Try adding the explanatory short phrase *married or single* to the last sentence of the same passage (following the word *ever*):

As discussed above, before college-level writing, using quotations was a useful means of teaching you to practice proper recognition and citation of sources: but *paraphrasing* and *summarizing* are source-inclusion practices that make mature writing more clear, powerful, and specific – and more successful.

Paraphrasing

A *paraphrase* can be difficult to craft for students and expert writers alike. *Paraphrasing* is defined as restating information from a source using your own different words and sentence structure. Frustration intercedes when writers find a source that contains exactly the right information, because a good paraphrase must present the same ideas and information, but in a way that bears virtually no resemblance to the original source. In other words, that perfect source that provides exactly the right information must be dismantled, rearranged and reworded. Anything less than a complete restatement will fail to be an accurate paraphrase, creating a situation of plagiarism.

Perhaps the most challenging method of integrating source material, paraphrasing also can be the most helpful in creating a succinct and seamless piece of research writing that flows well and has a consistent tone. One reason paraphrases work in this way is because the writer must restate source material in his or her own words, removing the variations in voice between authors and their sources.

Characteristics of successful paraphrases include, as discussed above, writing that captures the information from an original source in sufficient detail for your purposes without following the same sentence/paragraph structure and without using the same or similar wording. Paraphrases are best applied to small portions of text: paraphrases may be close to the same length as the original source text.

Consider this example adapted from *Who Says? The Writer's Research*:

> Original text:
>
> "Often student writers struggle with making their own paraphrased sentences differ enough from an original source text in a satisfactory way. When a reader can spot overlaps in language and/or sentence structure between a student essay and an original source text, this can result in an accusation of plagiarism." (Holdstein & Aquiline, 2014, p. 91)

One possible paraphrase:

> Suggested paraphrase:
>
> As Holdstein and Aquiline (2014, p. 91) warn, one of the ways students can avoid plagiarism charges is by paraphrasing very carefully. Students should move beyond simply rearranging words or changing sentence structure and make sincere attempts to communicate the ideas of the original source without relying on the same language.

Looks easy, right?

Students transitioning from high school writing to college technical writing must reframe their approach in some cases. Where a literature analysis essay, for example, presented the task of meeting a minimum word count, the technical writing assignment may require one to create clear and effective documents limited to a single page. Where extended description using creatively detailed and clever prose helped reach that word count, students here must focus on using fewer words that are more precise.

Step One: Read and Understand
"Put it in your own words" is an instruction that creates anxiety in some student writers. What are some reasons you might struggle with the process?

If you compare your responses to the prompt above to those of your classmates, you may find part of the difficulty is attached to the premise that the first step in writing a paraphrase is reading the source material carefully until you understand it. The only way to be successful in putting ideas and information into your own words is to know the information well enough to talk about it. Beyond simply finding a source that says what they want it to say, college and professional writers use source material to help support, explain, and synthesize the ideas their documents present. It follows, then, that reading and understanding source material might result in changes to the claims and ideas you write.

Step Two: Adjust for Proper Fit
Once you are comfortable you have found source material that relates to your argument and are confident you understand the information well enough to have a conversation about it, the next step is to translate the passage into your own tone and style. Making the paraphrase your own means using words and structure that complement your other original writing.

Imagine, for example, your research question is how to determine if there is an acceptable number of words in a paraphrase that exactly match the original text. You might ask the question "Could a writer be accused of plagiarism in paraphrasing if, as in the example above, some of the source's words are also my own words?"

First, return to the *Original text* passage and compare it to the *Suggested paraphrase* provided. List below all of the exact words and phrases that match between the two passages (excluding articles *a, an,* and *the*; and excluding in-text citations):

Given the subject matter of the writing, is there any equally or more concise way to *replace* those words? Probably not: in other words, the matching terms you identified are central to the idea being expressed in both the original writing and the paraphrase. Note in the examples (below) the matching words that are highlighted.

Next, re-read both passages and identify the focus or point of view from which the writer communicates. Notice how the second sentence in the original text emphasizes the *reader*:

- *"When a reader can spot overlaps in language and/or sentence structure between a student essay and an original source text …."*

Now, the paraphrased version of the same idea, which shifts the focus to the writer:

- *"Students should move beyond simply rearranging words or changing sentence structure… without relying on the same language."*

The writer in this example may have found the original passage very clear, concise, and structured perfectly for his or her purposes. Nevertheless, that writer resisted the urge to simply quote the original source, opting instead to attempt a paraphrase because they could use their own style to make the sourced information fit their own writing. That process allowed for inclusion of some matching terms because they are central to the idea. The writer changed the focus, thereby adjusting the fit, in their paraphrase of the original text.

Step Three: Insert Citations

When one is immersed in the research and writing process, it becomes difficult to track which ideas belong to a source, which are developed in part because of a source, and which are original but supported by a source. A risk faced by student writers is the failure to include citations crediting original sources of paraphrased material. The challenge of adequate citing becomes greater as source material is synthesized into original writing.

The short version of the safe approach, of course, is to cite everything. However, student writers frequently only insert citations for quotations, believing that citing paraphrased material is inappropriate for one of the following reasons:

1. I already had that idea in my own words before I read the source
2. There are so many parentheticals it's hard to follow my writing
3. It looks like everything I put in the paper is just sourced material, nothing is original
4. I only paraphrased part of one sentence/paragraph/page
5. I don't think I have to cite an illustration if I just discussed or described part of it

None of the reasons above is adequate cause to omit in-text citations for paraphrased material. Instead, insert in-text citations in a draft text every time you find a source text influences your writing in any way. In the event you remove the material in subsequent drafts, you can remove the citation: however, it is difficult to add accurate citations later.

Summarizing

Summarizing is probably familiar to you in that it amounts to reading and digesting a text (larger than a paragraph or passage you might paraphrase); then writing a brief explanation of the main points of the text in your own words. Summaries are a practical means of using a complete document as a source. Reserve this method for applications like providing background or theories, for example, related to a research topic.

Although summaries are a more commonly used method of integrating sources than quoting; and they are a simpler method than paraphrasing; they must include proper *in-text citation* of original sources in order to be ethically used by a writer. Here again is an opportunity for writers to read and fully understand a source in such a way that they can write a summary of the main points in their own words, then present an in-text citation to lead readers to the place where they can duplicate the same piece of research.

Illustrations

Complete instructions for using illustrations, whether original or credited to a source, are in the chapter entitled "Integrating Graphics." It is important to reiterate here that illustrations created by another author may be used as source material. In some cases, you will find it most useful to integrate a source's complete illustration and, similar to a quotation, any such graphic you use must include an in-text citation. Alternatively, student research writers may use information that is presented as part of an illustration in a source document. In-text citations are included in that case in the same way as any other paraphrased material.

Introducing and Discussing Sources

While this chapter has placed much emphasis on ethical use of sources with proper citations, an effort to give appropriate credit for source materials is only part of the picture required for responsible research writing. You are now prepared to collect sources, apply in-text citations, and synthesize the parts of those sources that are relevant to your developing document. The next steps for completing integration of source materials are described in this section.

Keep in mind the success of your technical writing relies upon your ability to develop documents that are clear, complete, concise, and correct. Source materials are vital in research applications of technical writing – like lab reports, proposals, and recommendation reports, among others. This section attempts to provide a starter set of tools to use when including sources in your written work, because it is not enough to simply plant quotations, paraphrases, and summaries wherever they might appear to fit. The appropriate methods for introduction and discussion are quite simple and can be easy to master with practice.

Sometimes the shortest path to understanding the right things to do may be to learn what <u>not</u> to do. A brief review of some *don't*s of introducing and discussing sources should be helpful.

In his entertaining essay entitled *Annoying Ways People Use Sources*, English professor Kyle D. Stedman (2011) provides definitions for, and examples of, a variety of methods that violate some best practices in introducing source material. Table 1 presents a short description of a few of the practices to avoid according to Stedman:

Table 1: What Not to Do

The Annoyance	The Description	The Fix
Armadillo Roadkill	Quotations that suddenly appear in a passage without introduction: like the armadillo you've run over in the road accidentally, the quotation "came out of nowhere." (Stedman, p. 245)	Review every quotation in your draft. Does the immediately preceding sentence identify the source and advise the reader specifically what the quotation does in context of the writing? Stedman advises to "surround each quotation with guidance to your readers about what you want them to think about that quote." (p. 248)
Uncle Barry and his Encyclopedia of Useless Information	Akin to listening to a know-it-all, when writing is overloaded with quotations, "Readers get the feeling that they're moving from one quotation to the next without ever quite getting to hear the real point … [or] getting any time to form an opinion about the claims." (Stedman, p. 248)	Review every quotation in your draft. Can you clearly justify why each quotation is used? Consider paraphrasing and summarizing in place of excessive quoting to remain "the primary voice of authority" in your writing. (p. 248)
I Swear I Did Some Research	Citations that appear without a clear connection to what paraphrased or summarized information in the passage came from that source. (Stedman, p. 252)	Stedman's advice: "Write the sentences preceding the citation with specific words and phrases that will tell readers what information came from where." (p. 253)

Kyle Stedman's complete essay is linked here and includes funny and helpful examples of these and other ways to improve introduction and discussion of attributed information.

Common Knowledge

At this point in the chapter, you probably grasp that maintaining academic integrity and writing ethically requires frequent and careful citation of sources of information collected in the preparation of a written document. One notable exception to the "cite everything" approach to academic research writing, however, deserves further examination.

Common knowledge is a specific designation for factual information that may be presented in an original document without citing a particular source. Common knowledge materials integrated into student documents are not to be considered a free pass from citations: instead, the occasional reliance on common knowledge exceptions can indicate a student's level of mastery of attribution requirements for academic research writing.

What Common Knowledge Means

Facts that are widely known among an educated audience might be described as information that is *common knowledge*. As with all issues in the study and practice of technical writing, students must look more closely at the specific characteristics and examples of common knowledge to understand how to properly apply the classification. Break the description down for a clearer picture:

- **Facts**: are concrete, recorded or verifiable information with no interpretation or theory component. For example, among adult U.S. citizens educated in the public school system generally, "Water freezes at a temperature of 32 degrees Fahrenheit" is considered a fact.
- **Widely known**: suggests that the average person with an average education would accept the **fact** as reliable without having to look it up to verify.
- **Educated audience**: the *audience* for a piece of writing is the real key to identifying information as common knowledge. Historic information, for example, may be common knowledge for people of a particular culture, while educated people unfamiliar with that culture may need verification of a fact. Certain scientific facts and theories may be common knowledge among a group educated within a particular field, but not for practitioners or experts in a different field.

How to Determine Common Knowledge

Common knowledge is a variable definition because culture, education, and practice change rapidly worldwide. Therefore, if a writer wishes to employ a common knowledge exception in an original document, he or she must be prepared to defend that decision. Keep in mind that the intended audience for the writing represents the first test of the common knowledge gauntlet. If the fact clears the audience hurdle, consider the following questions:

- Is the fact in question usually found in scholarly work without a citation? In other words, do reliable authors regularly include the information without a citation?

- Will any of my readers be likely to ask me for the source where I obtained this fact? This question often leads students to the “when in doubt, cite” conclusion because they may be unable to discern whether a professor is likely to accept common knowledge designation in academic research work.

Common knowledge typically does not include extremely detailed information; facts found in a search of public records or government sources; or data generated by you or others. (MIT 2019)

In-Text Citations and Reference Lists

In-text citations serve two closely-related purposes in documents:
1. To identify integrated source material at the point it appears in a text; and
2. To link the source material to its bibliographic information presented in the document’s reference list

Reference lists are made up of one reference entry for each source used in a document. Each entry has some variation of each of the following four elements:
1. Author;
2. Date;
3. Title; and
4. Source

In-text citations and references are inextricably linked together in all academic and professional technical writing. Whenever an in-text citation is found in a document, a reader knows he or she can find complete information about the source of the surrounding text in the reference list. Likewise, a reference list entry will always lead a reader to original source material that represents the text or idea connected to an in-text citation. To that end, correct and complete references must adhere to the specific content and format requirements of a prescribed style guide. APA style is typically used for academic technical writing unless another style is specified by your instructor.

Chapter Conclusion

Integration of source material sets you apart from less accomplished writers. Through review and practice, particularly practice in which you work with and learn from your peers, you should be better prepared to effectively use source materials in your academic writing. Remember, this is the time for you to expand your understanding about using sources. Practice is the most important activity for learning to integrate source material into your own documents. Practice is also the best way to develop skills for citing and referencing sources.

Activity: How do you integrate source information into original writing?

Fortunately, academic technical writing is informed by research writing across many disciplines: as a result, learning to write the genres specific to technical writing begins with research writing generally. This activity uses a non-technical research journal article as an example you and your classmates may use for practice.

The abstract from a recent research article (Buckley, 2020) appears below. Read the abstract and be prepared to discuss the information presented with your classmates.

ABSTRACT

Poor mental health costs about a tenth of global GNP. For many people, nature exposure improves mental health. This generates a newly recognised health service value for national parks worldwide, estimated at trillions of dollars annually. It creates a correspondingly large potential new market for commercial nature tourism, as a provider of nature therapies, especially in national parks. Before this opportunity can be realised, however, we must establish whether voluntary park visits generate mental health gains for everyone. Currently, psychology researchers and protected area managers hold opposing views. I therefore interviewed 238 outdoor nature and adventure tourists of all ages and backgrounds, at subtropical national parks in Queensland, Australia, to determine whether they visit parks because they are happy, or they are happy because they visit parks. A large majority, 82%, picked the latter. Of those asked, 87.5% reported short-term emotional benefits; 60%, medium-term recovery from stress; and 20%, long-term changes in worldview. Each timescale corresponds to a different opportunity for commercial nature tourism. Future research priorities include: economic scale; experiential components and commercial design for different market segments; comparisons of individual benefits for people with different personalities; and tests of mental health benefits for other types of tourism.

1. Working with a partner or small group as directed by your instructor, discuss the *research topic* described in the abstract provided. Imagine you were the researcher who conducted the study and wrote the article. In your own words, write one version of the *research question* you think may be the basis of the study. Note this exercise does not ask you to find the answer in the abstract. Write your response in the form of a question using one complete sentence.

For the remaining activities included in this section, access and download through your university library's website (if directed) a copy of the complete journal article using its Document Object Identifier: https://doi.org/10.1080/09669582.2020.1742725

2. Review the portion of text presented below and discuss with a partner. Are the passages enclosed in quotation marks examples of the quoting method of source integration? Explain your answer.

> For the interviews in this study, emotions were expressed broadly as "feeling happier or generally more positive." Recovery was expressed as "feeling regenerated, more relaxed, recovered from stress". Worldview was expressed as "feeling greater clarity, or purpose, or meaning in one's life, able to see what is important." Questions were thus framed as: "some people say that [this activity] in places like this [makes them feel happier]/[helps them recover from stress]/[etc], but others disagree – what do you think yourself?" Alternate questions were framed using opposite phraseology, such as "[less happy/more stressed]", and recategorised subsequently. Interviewees and interviewer were free to ask for clarification, if question or responses were unclear, and to continue unstructured discussion if they wished. (Buckley, 2020, p. 1416)

3. Now consider the source citation in the following excerpt from Buckley's article (p. 1419):

> In addition, a small number of interviewees gave responses that did not match any of the four predefined categories in the third question. For example, some said that particular outdoor activities, such as hiking or surfing, gave them psychological strength. This outcome has been identified previously for other adventurous outdoor activities (Brymer & Schweitzer, 2013).

What part of the text presented above is *attributed* to the source article? How do you know?

4. Finally, try your hand at writing a *paraphrase* of the following passage from Buckley's article (p. 1417):

> Motivations
>
> The reasons that people gave for visiting forest and beach parks are summarised in Table 1. There were differences in practical detail between forests and beaches, but remarkable similarity or symmetry in underlying psychology. In each case, interviewees mentioned natural attractions, outdoor activities, escape and relaxation, and social and family factors. These align well with findings of previous studies on the motivations of outdoor nature, eco and adventure tourists both generally (Arnegger et al., 2010; Kim et al., 2015), and at these sites specifically (Weaver & Lawton, 2002).

Homework

1. Download or print a recently published research article from a peer-reviewed journal used by professionals in your field of interest/study.
2. Skim through the article to find a *quotation* that cites a source in-text: then,
    a. Identify the source in the article's *reference* list;
    b. Locate and download the source document using its reference; and
    c. Search the source document for the *quotation.*
3. Write a paragraph using in-text citation for <u>both sources</u> and discuss your findings about the following questions in your paragraph:
    a. Did the author quote his or her source's original wording accurately?
    b. Was the quotation presented as supporting evidence for an argument?
    c. Why do you think the author chose to *quote* rather than *paraphrase* the source?
    d. How many times and in what context did the author cite this source?

Be sure to include a *reference list* at the end of your writing assignment.

<u>Technical Writing Document Creation Assignment</u>

Write a short (3-paragraph) report on a topic chosen by your instructor or based on your instructor's directions. Focus your effort on *synthesizing* information taken from 2 – 3 sources that are published journal articles. Practice incorporating source information using *paraphrasing* with appropriate *signal phrases* and *reporting verbs* as well as *in-text citations.* Include a *reference list* at the end of your report.

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Unit V: Conducting Research

Identifying Secondary Sources

Stacey Corbitt

Chapter Overview

College success in general, and success in a writing course in particular, depends in large part on disciplined, thoughtful use of sources in research writing. How do you find information about the new, exciting, or even obscure topics that interest you? And why do colleges still have libraries in the age of Google?

Developing information literacy skills includes learning online search techniques as well as de-mystifying the college librarian. Collecting an arsenal of academic research skills affords students the opportunity to learn about a limitless number of subjects through research. Through study of examples and practice of the information introduced in this chapter, students will learn to identify sources of various types and enlist the expertise of college librarians in academic research. The students' goal in acquiring these skills is to develop excellent academic research capabilities.

What are secondary sources?

In the past, you may have written a research paper that relied mostly upon studies conducted by researchers who then published their findings in journals, books, or websites. Students typically access these published reports about research others conducted and use those reports as sources of information for their assignments. Those sources, written and often published reports about original research conducted by others, are *secondary sources*.

Research at the college level may look different to you than previous work you have been assigned. *Triangulation* of research methods – using a variety of methods to collect and analyze data in an effort to increase validity and reliability within your results – becomes important in college research and beyond. *Primary* research, involving data you and your colleagues collect through observation, experimentation, and other direct methods, may be a new experience for you. This chapter concerns itself with *secondary* research as the main resource to be used in early-level college work, and in particular aims to help you learn to identify sources of information that are the result of another's primary research.

<u>Peer-Reviewed Journals</u>

The most common, and often most reliable secondary sources for college writers are articles written by researchers. Such articles will often provide clear descriptions of research question(s); research methods; results data; and conclusions. Peer-reviewed journals typically are published by professional associations/organizations and institutes of higher learning. While some peer-reviewed journals are still produced in print form, many are electronic publications that are readily found using library-based *search engines* (EBSCOhost, for example) to access academic library *databases* (Academic Search Complete, for example). Begin at the university library web site.

Websites (Including Blogs)

While their reliability may be questionable (since to some extent they can be published by *anyone)*, websites with the extensions of *.com, .org, .edu,* and *.gov* are often used to locate secondary source material. The general categories represented by these suffixes are provided below:

.com	Commercial website: owned by a for-profit company
.org	Website published by a not-for-profit entity generally
.edu	Website owned by an educational institution
.gov	Website owned by a U.S. governmental entity

With a classmate, discuss the different types of entities identified in the list above. If you are not familiar with any of these entity types, ask your instructor for examples.

Do you think any of these types of entities produces more reliable, valid, or otherwise superior source material? If so, which one(s) and why? Explain your answer.

Consider the reality that, while a non-profit entity might exist for humanitarian or other presumably noble purposes, the .org designation does not itself guarantee any reliability or absence of bias. Similarly, a .com website can belong to a for-profit company whose research efforts are entirely dedicated to making the world better for everyone. The three-letter extension at the end of a web address provides little or no real information about the motives or integrity of the organization presenting the research.

Blogs, which were originally called *weblogs*, are sometimes a part of an entity's website. Other times, blogs are a complete website unto themselves. In either form, blogs are serial online publications that include journal-type entries, called *posts*, as well as hosted discussion forums. Blogs cover all manner of topic areas and generate revenue through advertising and subscription fees. Blogs are essentially the magazines of the digital realm. As is the case with any website you consider using for secondary source material, writers must carefully evaluate blogs for bias and accuracy.

Like other websites, blogs vary in terms of their validity as secondary sources and therefore must be evaluated carefully before writers rely on them for evidence in support of arguments. Look at the example of a blog found here: https://apastyle.apa.org/blog and respond to the questions below. Be prepared to discuss your responses in class.

1. What can you find on the website about the *owner, writers,* and *purpose* of this blog? Hint: website designs vary widely, but look for key words and phrases like *About Us* or *Who We Are* or *Resources* sections on a webpage (sometimes, but not always, in a header or footer). In the space provided, quote or paraphrase the information you find in response to the question and include APA-compliant citation(s):

2. Next, locate the Search feature for this blog. Frequently, a search function is provided in the header of a web page: in the case of the blog you are reviewing, it is near the top right corner. Use the search phrase *conference proceedings* and describe what your search produces in the space provided below:

Points for possible in-class discussion:

- What features of this blog make it a potentially useful secondary source?
- Who do you think is the intended audience for this blog? How can you tell?
- Why do you think some posts contain space for *comments* while other posts do not?

Conference Proceedings

Conference is used in this context as a general term that includes meetings, conventions, symposiums, seminars, and other similar gatherings where experts in particular fields of study may present their early research findings, methodologies, and related information for the benefit of peers and students in attendance at the conference. Unlike articles in a journal, the published conference proceedings may include documentation that supplements presentations that were made in person at a conference. Such is the case with the example provided below.

In the previous section's activity, you learned how to cite conference proceedings as secondary sources. In the activity that follows, an example of a case study that was provided as part of a conference proceedings publication is excerpted for your consideration and response.

Activity: Participate in a Conference Workshop

Review the example of conference proceedings provided below, adapted from the *Institute for Global Business Research International Conference Proceedings* (2018, pp. 71-75) and discuss with your classmates where indicated. The complete proceedings may be accessed at the following web address: https://www.igbr.org/wp-content/uploads/2018/10/2018-October-Conference-Proceedings.pdf. Note that the three authors listed in the excerpt were probably present at the conference: they may have presented a session at which they demonstrated to conference-goers how to conduct an activity using the "scenes" provided in the case study.

ACADEMIC INTEGRITY: THE CASE OF CHEATING IN A MASTER'S OF ACCOUNTANCY PROGRAM

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ABSTRACT

This case is a learning experience to increase students' understanding of cheating in the classroom and how academic integrity transitions from the classroom to the workplace. The case provides an opportunity for students to understand all facets of cheating in the classroom, including plagiarism. Students will specifically discuss opportunity and to understand the motives behind what makes an individual want to cheat the academic system. How does one person cheating affect other students? Are there steps that could have been taken to prevent the academic cheating? Why are other students hesitant to blow the whistle on known offenders?

The conference proceedings example continues below with a *case summary*. Read on and take notes as you need to or as directed by your instructor. You will be responding to one of the various "scenes," similar to the experience conference attendees may have had.

CASE SUMMARY

Background:

Phillip is in his second semester of his Master of Accountancy program at State University. Phillip is a slightly above average student struggling with maintaining the rigors of a master's program and enjoying the collegiate experience. His only thought was to get his degree, even if he didn't put full effort into it. After all, he had a job waiting for him at fairly prestigious regional CPA firm, he just needed to finish his classes. He said all the right things during his interview and really, his gift of gab was one of his strong points, wasn't that what got him the job in the first place? After all, he didn't have the higher grades like some of his classmates who still didn't have job offers yet.

Phillip was also treasurer of his school's Accounting club responsible for all financial reporting. Phillip is a busy college student and he has to have time for himself too, doesn't he? Phillip fell behind on his academics, and while he had always managed to juggle his busy schedule and get by he was beginning to stress about his upcoming term papers and projects due in a few short weeks. His parents were flying in for graduation too. Phillip decided he would really buckle down these last few weeks, he simply could not disappoint his parents.

Shaelynn is nearing the end of her first semester in the Master of Accountancy program at State University. It has been a humbling yet rewarding experience. Shaelynn always did well academically but this program has challenged her in ways she never expected during her transition from the undergraduate accounting program. Shaelynn participated in the recruiting process early on in the semester and managed to land a full-time job with a Big 4 firm upon graduation in the fall term; she is determined to prove her worth and show her future employer they made the right choice in hiring her. The end of her first semester in graduate school started to overwhelm Shaelynn but rather than go to off-campus actives, she stayed home and studied. Shaelynn was approached by two of her classmates, Phillip and Jared, about getting together for some study sessions these last few weeks. Shaelynn knew both Phillip and Jared had slacked a bit over the semester but she liked seeing everyone succeed and after all, this was a chance to demonstrate her willingness to be a team player. She even agreed to be on their oral presentation team for their final semester project in advanced accounting.

Jared could hardly believe the end of the semester was near and about to start the next chapter in his life – a staff accountant at small regional firm, only thirty minutes from his parents' home. He planned to live with them for the first several months so he could save money to pay off his college loans. Jared was excited to work with Shaelynn and Phillip on the final project for advanced accounting. Shaelynn was very good at details and while Phillip was not always thorough, he always seemed to come through and get the job done.

The next excerpt from the example conference proceedings is provided for your review and response. Please review the "scene" (which is one of three that are part of this conference proceedings submission), then respond as directed.

SCENE 1:

Phillip was overwhelmed. He was in the middle of a marathon web research session for the final project in advanced accounting and he still had not started on the financial statements project for one of his other classes. He vowed to get it completed, before the due dates. As he browsed Google, an intriguing item caught Phillip's eye – an online solutions manual for the financial statements project. No, he couldn't do it, after all, he was about to graduate with his degree in Accountancy – a practice where ethics is a daily occurrence. But the more he researched the more Phillip thought that it wouldn't hurt anyone in this one instance, after all, he could still learn the material he missed after the fact. Just then Shaelynn and Jared burst through the door. Phillip was not quick enough to keep either of them from seeing what was on his computer screen.

"You are not doing what I think you're doing, are you?" Shaelynn exclaimed.

Phillip quickly minimized the solutions manual and tried to look innocent. He knew he'd been caught but at least it was only his classmates. He was a slick talker and could easily make sure Shaelynn and Jared would not rat on him. "Look Shaelynn, I was only double-checking my financial statements project to make sure my numbers matched. I've been at his project for hours." Shaelynn was doubtful but decided to give Phillip the benefit of the doubt.

The three worked on their presentation for a couple of hours and decided to give it a rest for the night. But after Shaelynn left, Jared approached Phillip. "You didn't just verify your financial statements project did you?"

"No I didn't," stated Phillip. "I am so overwhelmed right now and I don't know how I'll finish everything. I promise you this is a one-time thing."

Jared was also struggling to keep afloat during this busy end to the semester. "Look Phillip, I understand and I feel the same way but we need to do our own work."

"Jared – this one time I am willing to help you out and give you the solutions manual, you know, so you can 'verify' your work as well."

Jared hung his head. "I can't," he replied. Or could he?

Imagine you were an attendee at the 2018 Institute for Global Business Research International Conference. According to the secondary source (a portion of the conference proceedings) we have been reviewing (IGBR, 2018, p. 71)

> Students will specifically discuss opportunity and to understand [sic] the motives behind what makes an individual want to cheat the academic system. How does one person cheating affect other students? Are there steps that could have been taken to prevent the academic cheating? Why are other students hesitant to blow the whistle on known offenders?

Discuss the three questions provided with a partner or as directed by your instructor, and write your responses in the spaces provided below.

1. How does one person cheating affect other students?

2. Are there steps that could have been taken to prevent the academic cheating?

3. Why are other students hesitant to blow the whistle on known offenders?

As noted above, many conference proceedings documents present preliminary research and can be used as secondary sources. Following is an excerpted abstract from another paper (pp. 17-25) presented at the same conference: this time, the author refers to the report as a *note,* suggesting it is not a complete research report. Nevertheless, the report presents arguments supported by evidence. The report was most likely prepared by the author and submitted to the conference sponsor. The audience for the document, then, is the peers of Yu Peng Lin; and the purpose of the document is to provide supplemental material to the author's live presentation at the conference.

IS ONLINE LEARNING AS EFFECTIVE AS THE EVIDENCE SUGGESTS?

Yu Peng Lin, University of Detroit Mercy

ABSTRACT

A large share of the empirical data employed by social science researchers is non-experimental. In contrast to experimental data, non-experimental data has many limitations resulting from uncontrollable variables. Interpreting the empirical results becomes challenging.

In this note, we provide a discussion on one of the limitations, namely, sample self-selectivity, using studies of student learning effectiveness in the online environment as our examples. Sample self-selectivity suggests that the treatment and control groups may not be comparable. Researchers have to extend great caution when making statistical inferences.

Keywords: online instruction, self-selection

Using this link - https://www.igbr.org/wp-content/uploads/2018/10/2018-October-Conference-Proceedings.pdf - access Lin's paper in the conference proceedings and read through it, making notes as needed. At the bottom of page 18 of his paper, Lin concludes that "The majority of empirical evidence supports the position that students generally learn as much online as they do in the traditional classroom environment." Discuss the arguments and evidence with one or more classmates: does the author agree with the position he says the evidence supports? Be prepared to discuss your response in class.

Books

Although it may have been a long time since you went to a library and checked out a book to use as a source for a research report, books and libraries are still some of the best resources. Whether your research centers around a historical topic or something on the cutting edge of science or technology, don't forget about these valuable information sources. Books are increasingly available in media other than print on paper. The book you are reading now, for example, was published originally as an electronic document. This book can also be printed and even bound if readers prefer a more traditional reading experience. Additionally, books may be available in a variety of audio formats, making them accessible to even more users than traditional printed books alone. It is quite likely that, if your university library does not own a book you want to review, the library staff can access it through an interlibrary loan.

Using the Library

In past writing classes or other courses where you were required to write a research report or another form of major paper, what "rules" about *using online sources* did you learn?

Compare your answers with your peers and/or compile a master list during class discussion.

Some of the common responses to the prompt above include the following:

- Wikipedia is not an acceptable/reliable source
- Google is not a source (it's a search engine)
- No sources may be more than X (number of) years old
- Only X (number of) sources may come from online: others must be print documents

While college instructors continue to cringe when asked "Can we use Wikipedia?" acceptable electronic materials are becoming available all the time. It's not that Wikipedia is necessarily *bad:* but, according to its own *About* page: "because anyone can click 'edit' at any time and add content, any article may contain undetected misinformation, errors, or vandalism" (https://en.wikipedia.org/wiki/Wikipedia:About, 17 July 2020). So, getting the best results from online sources depends on students' careful and critical efforts to learn how and where to search for sources.

As electronic resources change and college libraries adapt, more opportunities arise to access useful, reliable, relevant and high-quality source materials using online platforms. Today, some university libraries probably have more students using their resources virtually than have physically walked through the library doors in many years. As college education systems adapt to sudden and sometimes sweeping changes, so are college libraries working to provide all the necessary tools and information in ways students can access them with ease. Be certain that you understand how to access your school's online library interface as soon as possible, recognizing that access may be different through an internet connection from home than it is from an on-campus computer. Consult the librarians and/or library's website for specifics.

In a previous section of this chapter, powerhouse online academic search engine EBSCOhost was identified as a place you might look for databases that house electronic versions of peer-reviewed journal articles. This example represents a small selection from a larger sea of academic search tools to which you may have free or low-cost access through your university library. Make an appointment for an in-person or virtual tour of the library and ask the librarian for his or her best recommendations of online search tools. This way, you can be certain you are accessing appropriate peer-reviewed professional publications while avoiding last-minute Google searches that may yield unverifiable results (or worse).

What is the name of the librarian you talked to? What is/are the names of the search engines and database(s) most highly recommended for your assignments by your school library?

College students new to academic research libraries sometimes search the library databases but find they either get too many results that are not useful, or they get no results at all. Talk with the librarian about this phenomenon. What is his or her advice in this instance?

Finally, remember that the main purpose of a campus library is to assist students in learning by providing resources you can use to access information – secondary sources – for use in your research activities. No assignment is too minor, so take the first opportunity you have to get familiar with your campus library, its search engines and databases, and its librarians.

Chapter Conclusion

This chapter aims to help students become familiar with - and be able to identify - various types of secondary sources, all of which can be accessed through a college library. Students have been introduced to – or, re-introduced to – their university library and the array of support services it may offer. Being able to identify what source information is needed, as well as to know what sources are once found, allows student writers to research more confidently and to make the best use of library resources through planning and preparation.

Homework

Develop a set of instructions directed toward an audience of new students at your university. The instructions should give the new students the information they need to successfully complete the following tasks:

- Locate and access both the physical library and its website
- Identify the library staff member(s) you recommend first-time students meet
- Arrange a virtual and/or physical tour of the library
- Request interlibrary loans and any other special access you think may be helpful
- Check out physical materials from the library
- Get technical assistance with online library questions

Remember to use illustrations that will help your audience understand and use the instructions.

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Selecting Secondary Sources

Stacey Corbitt

Chapter Overview

This chapter aims to help you make determinations about the appropriateness and value of *secondary sources*: broadly, this book's use of the term *secondary sources* refers to published materials you choose as evidence supporting the arguments you write. The chapter "Writing Topic Proposals" Activity B, Table 2, presents a set of checklists for evaluating the *quality* of secondary sources. Similarly, Figures 5 and 6 in the "Writing Essays" chapter of this textbook also provide source quality evaluation tools. This chapter supplements the efforts of the two others identified by providing methods you may use to choose appropriate evidence; manage evidence as you collect it; and address errors in logic.

How can I determine whether a source actually provides support for my argument?

Reading is often the first step to really understanding a topic, and can naturally evolve into identifying arguments. Whether you choose a research topic or one is assigned to you, expect to read enough source material about the topic that you could write two (or more) very different arguments based on the sources you read.

For example, consider the topic of *risks associated with medically nonessential aesthetic surgery.* Working with a partner in class, discuss the various perspectives that may be held by members of the groups listed below. Write one thesis statement for each group you think could represent a position that group could support. Unless you are well familiar with the topic, you may want to consult a database (or Google) to understand the possible points of view.

Group	Perspective-based thesis (position) statement
Psychiatrists	
Parents of preteen girls	
Cosmetic surgeons	
Modeling Agencies	

Compare your team's draft position statements with those of others in the class, including a discussion of the *sources* you and your peers reviewed. What can you determine about the sources you might find if you were researching arguments about the topic?

What questions did your initial findings raise in relation to the *quality* of the sources you found?

Evaluate the Credibility and Reliability of Sources

Now you have considered a topic and quickly reviewed some information about it: you have completed the first step in developing and supporting a researched argument. It's important to remember at this stage that college-level writers do not decide what to write and then look for sources that support those ideas. Instead, it is critical to approach a topic with an open mind so you can consider all relevant source material you find in an unbiased way. Only then can writers develop a fair argument that relies on quality, credible, and reliable sources of supporting evidence. Researched documents represent a process of discovery by writers and readers alike.

In addition to the methods and tools identified in the first paragraph of this chapter, what other investigation can help you determine whether you have found strong source material? Consider the following questions and be prepared to discuss their relevance in class:

- Does the document provide a reference section listing the author's own sources?
- Does the document attempt to entertain the audience with humor or colorful graphics?
- Does the document contain advertising or other sponsor-based materials?
- Can you find recent scholarly publications that rely on this document as a source?
- Do you think the different perspectives listed above represent a potential for bias among sources? If so, what would you do as a researcher to recognize biased sources?

Avoid the Pitfalls

Much like the effort we must make to avoid searching for source material that supports an already-conceived argument, simply relying on one source to define the points of your own argument can lead to mimicking the source, which results in plagiarism.

Solve this dilemma by reading and collecting evidence from multiple sources on different perspectives. Develop a list of keywords and key phrases you identify on multiple perspectives. This effort will help you to avoid relying too much on one source. Another result may be that you collect a lot of potential evidence for two or more sides of an issue. Read enough about a topic to understand what the different perspectives may be, possibly starting with an academic database like Opposing Viewpoints. If your university library does not subscribe to this or a similar database, the document found here provides for a free trial usage of the service.

Weed Out Your Collection and Manage Your Source Materials

If you carefully followed the process outlined in this section of the chapter, you may find you have two sets of source materials:

- one set you might deem potentially very valuable as evidence because it meets the requirements of the various checklists and tools you applied to determine credibility and reliability; and
- another set that seems reliable enough, but may not be relevant to your argument.

1. Begin the process by skimming all of your promising journal articles and books. If you also have web content in the “potentially very valuable” pile, check to see whether the useful parts of those sources are linked documents (.pdfs) rather than dynamic webpage content: in other words, be certain you know what your source document actually is.

2. Similarly, if you have material from trade journals, popular periodicals or newspapers, or blogs, take some time to locate their DOIs or otherwise confirm at what level those online documents are permanent.

3. If possible, further narrow down your potential evidence by building a working bibliography that contains complete information for each source. You can always add or delete sources as your specific argument develops.

How can I recognize and avoid or address errors in logic?

Errors in logic, or *logical fallacies*, as discussed in this textbook are flawed reasoning presented in an argument. The best way to recognize them is to practice careful, critical reading; and understanding why logic is flawed allows you to avoid or revise for these errors. Some logical fallacies are no doubt already familiar to you, while others may be new. Take some time to explore the interactive website https://yourlogicalfallacyis.com/ and ask your instructor about any fallacies you find confusing. Be prepared to discuss your findings and questions in class. Based on your understanding of those listed on the website, what are examples of some logical fallacies you have encountered? Remember that your encounters could be in the form of items you read as well as other forms of media you encounter.

Fallacy name	**Give an example**

Certain logical fallacies are also quite common in person-to-person communication. For example, consider the *tu quoque* fallacy (presented at this link):

https://yourlogicalfallacyis.com/tu-quoque

Just for fun: can you identify an example of the *tu quoque* fallacy being played out in a scene from a favorite film or television program? Describe the scene below, including why you think it represents the fallacy; and paste a link, if one is available.

Chapter Conclusion

Selecting secondary sources may require a variety of skills as you develop new ways of thinking about sources. Writing your opinions and finding sources that simply agree with what you think is unacceptable. Instead, the challenge of writing arguments at the college level requires you to begin at a place with an open, questioning mind. As you read and take notes, your arguments take shape around the information you discover from a variety of perspectives worth contemplating. Your ability to choose appropriate evidence; manage evidence as you collect it; and address errors in logic will develop through a process of critical reading and thought.

Homework

1. Using your university library's website, access the "Gale Opposing Viewpoints – In Context" database (or another similar database).

2. Locate the database's collection of potential sources related to a controversial subject, either chosen by your instructor or self-selected (consult your instructor for specific direction).

3. Review *at least 5* sources of information representing *at least 2* perspectives on the controversial topic. Assess the reliability, validity, and relevance of the source documents according to the guidelines provided in this chapter.

4. Using the worksheet provided on the next page, prepare for a discussion with your instructor or a peer, as directed by your instructor. The worksheet will provide a rough framework that allows you to connect your argument claims to specific pieces of evidence you collect and provide a basis for writing the argument.

Source Selection Worksheet

1. What is your position on the topic? The answer will be the basis for your thesis statement.

2. What is the main position or argument that is contrary to your position? How do you know?

3. What are the facts that directly support your position? State the facts in complete sentences in the left column. For each fact, provide the bibliographic information for the source that provides evidence to support this claim.

Fact	Source information

4. What are the facts that directly support the contrary position? State the facts in complete sentences in the left column. For each fact, provide the bibliographic information for the source that provides evidence to support this claim.

Fact	**Source information**

5. What weakness(es) can you identify in the evidence you found in support of the contrary position?

Source	**Weakness**

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Interviewing for Information

Dawn Atkinson

Chapter Overview

This chapter aims to help you understand research terminology so that you feel confident when reading about and discussing research studies. It focuses in particular on interviewing for information and describes how to use this research approach, considering that technical communicators often interview *subject matter experts*, those with advanced knowledge or skills in an area, to gather information.

Although this chapter focuses primarily on face-to-face interviews, interviews may also be conducted via phone, videoconference, or email; thus, the chapter supplies several key tips pertinent to interviews conducted from a distance. Know that much of the guidance presented herein applies to any informational interview, regardless of the means by which it is conducted.

Develop an Understanding of Research Terms

When individuals *conduct research*, they seek out *data*—information gathered through investigation—to advance their understanding of a particular topic. Through research, for instance, they may endeavor to answer a question, fulfill an objective, redress a problem, make a decision, support a viewpoint, or determine the legitimacy of a hypothesis. With ends such as these in mind, they select certain *research methods*, or techniques used to collect, organize, and analyze the data. The research methods they choose may also be influenced by audience expectations or the conventions established for inquiry in various fields. Investigators may also opt to *triangulate* research methods by using two or more techniques to gather different types of information, to view a focus of inquiry from multiple perspectives, or to guard against relying heavily on one method that may not work well in the context of a particular study.

Using definitions adapted from Last (2019, p. 120), data can be divided into two broad categories.

- *Primary Data:* This category is comprised of raw data a researcher collects or examines firsthand. Primary data might be gathered via the following means.
  - *Measurement:* Recording numbers that indicate amounts (e.g., temperature, size, frequency, or duration) to pursue a focus of inquiry
  - *Observation:* Observing a focus of inquiry by using human senses or instruments (e.g., a camera, voice recorder, or microscope)
  - *Interrogation:* Using questions to explore a focus of inquiry (e.g., interviews, polls, and questionnaires)
  - *Participation:* Taking part in something to explore a focus of inquiry (e.g., a site or facility visit)

- *Secondary Data:* This category is composed of data that have already been gathered and systematically organized, commented upon, interpreted, analyzed, or evaluated. Secondary data can be found in the following types of sources.
    - *Academic Journal Articles:* Peer-reviewed reports of research studies
    - *Popular and Industry-Focused Publications:* Books, trade magazines, general-interest magazines, and newspapers
    - *Online Publications:* Popular media sources and industry, government, and non-profit organizations' websites
    - *Workplace Documents:* Internal reports, production records, committee notes, company memos, newsletters, fact sheets, and instruction manuals
    - *Audio-Visual Material:* TV and radio shows, films, and podcasts

Depending on the research methods investigators select and how they implement those methods, studies may also gather numerical or textual data.

- *Quantitative Data:* Data that can be measured precisely in numbers.
- *Qualitative Data:* Data that is expressed in words; although it cannot be precisely quantified, it can provide in-depth understanding of a situation, activity, individual, or environment.

Some studies are also characterized as *mixed methods*, meaning that researchers apply various methods to collect and use both quantitative and qualitative data.

Regardless of the type of data a study collects or the methods it uses, textbook author Last (2019, p. 121) stresses that the research must be ethical and align with established standards of honesty and integrity. She lists ethical lapses that can lead to substandard research and, ultimately, to serious repercussions, such as failing grades, academic sanctions, damaged reputations, lawsuits, job losses, and criminal charges:

- Fabricating research data.
- Ignoring data that contradicts a researcher's own ideas.
- Misrepresenting someone else's data or ideas.
- Using data or ideas from another source without citing and referencing the source.

In addition to vigilantly avoiding these ethical lapses, individuals who conduct research should also strive to eliminate bias when collecting, organizing, and analyzing data. Be aware that *bias*, or partiality to something, can occur when investigators want to confirm their presumptions or hypotheses about a focus of inquiry. To avoid the issues mentioned in this paragraph, strive to be an ethical investigator by approaching research opportunities with an open, inquisitive mind; by being truthful when reporting on studies; by viewing issues from various perspectives; by representing research accurately; and by correctly citing and referencing sources of information.

Understand What It Means to Interview for Information

When you embark on a research project, a first step is to think carefully about what you wish to explore and how best to go about investigating that topic; in addition, find out whether your field of study has certain expectations for the way research is conducted. These considerations will influence the type of research method(s) you decide to use. Ultimately, you may choose to employ interviews in your research since this method is particularly useful for collecting original, detailed data. When *interviewing for information*, a researcher asks someone questions to delve into a focus of inquiry. Researchers may interview for information, for instance, to discover how a certain product or approach works in an organization, to investigate the cause of an issue and how to tackle it, to find out how people perform activities or jobs, or to learn about topics that may or may not have been discussed elsewhere. Preparedness on the part of the researcher is key to successfully addressing such purposes.

Preparing for an Interview

As you prepare to interview for information, establish your project goals in concrete terms, and compose a list of interview questions that is focused on gathering data to meet those goals. Doing background reading on the interview topic, interview participant, or both can help an interviewer construct useful and targeted questions. Consulting *tertiary sources*—reference publications such as dictionaries, encyclopedias, and textbooks that consolidate primary and secondary data—may also help a researcher gain a general understanding of concepts, lines of inquiry, or schools of thought relevant to a certain topic (Last, 2019, p. 119) in order to construct specific questions.

Since each interview is unique, considering that investigators and research participants enter the situation without fixed knowledge of how the interview may proceed or what will be said, it is sometimes difficult to anticipate how many interview questions might be covered during a scheduled interview time. Nevertheless, as a novice researcher, it is best to construct a list of multiple interview questions in advance of the data-gathering session, even though you may not have time to ask everything on the list. Neatly write or type up your questions so you can read them easily during the interview session, and organize the questions in order of importance respective to your research goals so you can gather vital information early on in case you do not have the opportunity to ask all the questions on your list. It may also be helpful to include a few easy-to-answer questions at the top of the list to help you and the interviewee acclimate to the interview situation before you launch into more challenging questions that will likely take the participant time and a certain level of comfort to answer: you might verify the spelling of the interviewee's name and his or her contact details at the beginning of the session, for example.

Devising a List of Interview Questions

Interviews may be thought of as directed conversations conducted with goals in mind, and it is up to a researcher to keep the conversation going and on track. Interview questions can help in this regard, if you invest time and effort in their thoughtful construction. A list of questions that primarily calls for *yes* or *no* answers is unlikely to keep the conversation progressing or help a researcher gather rich qualitative data. Instead, aim to construct a list comprised mainly of *open-ended questions*, which allow for a range of participant responses, to collect detailed data with an eye toward the goals of your investigation, and reserve *closed questions*, those that allow for a set choice of responses, for accuracy checking during interviews.

You might compose your list of questions by starting with the prompts *who*, *what*, *when*, *where*, *why*, and *how* and add a *so what* question that encourages the interview respondent to think about what a circumstance, issue, or matter means. Here are examples of such questions that address writing-related matters.

- Who do you collaborate with when working on writing projects?
- What techniques do you use to ensure your audience is able to understand complex ideas when writing about science?
- When do you prefer to write?
- Where do you like to write?
- Why are proficient writing skills important in your job field?
- How do you begin a writing project?
- Tell me about ethical issues have you encountered when writing on the job? Follow-up question: How did the handling of these issues affect your development as a writer?

Starting with these kinds of *direct questions*—questions that address interviewees in a direct manner or ask them to discuss their experiences in a direct way—can help you gather information efficiently.

Indirect questions, those that address respondents in an indirect or removed way, can also be useful when asking about sensitive subjects to avoid causing offence. For instance, an interviewer might ask a respondent to speculate about how other people in the same situation feel about a delicate topic and then ask how these views differ from the interviewee's perspective.

Although you will likely begin the interview with your prepared questions, you may occasionally deviate from this list to pursue interesting points raised during the session. This situation can sometimes lead a researcher down unexpected but fruitful paths in terms of data gathered; however, always keep the goals of your project in mind to stay focused during the session.

Similarly, if an interviewee becomes somewhat distracted from the topic at hand when answering a question and begins talking in depth about another topic, you will need to think of a polite strategy to refocus his or her attention so that you can still collect the data you need to meet your goals. Simply repeating or rephrasing an interview question can be an effective technique in this situation.

Before an interview ends, you might decide to ask a wrap-up question to see if the participant wants to share anything else or discuss a point in further detail. The following is an example of a wrap-up question: Is there anything else you would like to talk about that we have not already discussed? As respondents sense interviews coming to an end, they sometimes relax and share useful and unexpected data in response to such wrap-up questions. Be sure to remain alert for these responses, however, so that you can capture the data.

Requesting an Interview

Keep your research goals in mind when identifying an interviewee for a project. Some projects require interviews with subject matter experts, whereas others call for interviews with members of the general public, and it is a researcher's job to seek out interviewees who can provide needed information. You can consult secondary data sources when searching for research participants to ensure the participants' qualifications align with your research objectives: for instance, you might be able to identify a potential interviewee through a campus committee list or in a newspaper article that addresses your research focus. Depending on the research project, you might also be able to tap friends, coworkers, housemates, family members, professors, or other university employees as interviewees or ask these individuals if they know of potential interview participants.

Once you have identified a possible interviewee, contact that person to request the interview. When making contact, be honest and open about your research goals and what you plan to do with the interview data since candor and transparency are central to ethical research. You must also ask the interviewee for permission to audio or video record the interview if that is your intention; if the interviewee refuses, you cannot record, but you may ask permission to take notes instead. It is also a good idea to ask whether you can use the respondent's name in the interview write up. Again, if the participant refuses, you will not be able to mention his or her name; however, you may be able to use a pseudonym, such as *Respondent One*, when referring to the interviewee. Relatedly, if the interviewee asks to see a copy of your planned questions prior to granting the interview, be prepared to share these as a gesture of goodwill and as evidence of your dedication to transparent research. Lastly, be considerate of the participant's schedule by estimating how much time the interview will take so the respondent can make an informed decision about whether to grant the interview.

When scheduling the interview, suggest a quiet location for the meeting that is convenient for both you and the participant. The participant may prefer to meet with you in his or her office or workspace; regardless of the location, the noise level should not affect the interview conversation or prevent you from taking notes or recording the encounter.

Although you may have scheduled an interview with a participant, be prepared for unexpected changes to the plan should they arise. Think of another person from whom you can collect interview data, for instance, if your first participant has to cancel since you will presumably still need data to fulfill the goals of your research project.

Arriving at an Interview

On the day of the interview, arrive on time fully prepared with all the materials you may need: specifically, a watch to keep track of time, pens and paper to take notes, and a reliable voice or video recorder to capture the session (if your participant has agreed to the recording). As a courtesy, ask the participant again if he or she consents to being recorded and to you taking notes on the session. An interviewee may ask to review a researcher's notes for accuracy, and complying with such a request can help you establish rapport and a relationship of trust with the participant.

While interviews are a valuable means of data collection, they can also be networking opportunities during which you establish relationships—relationships that may prove useful to your professional aspirations—so maintain a respectful, polite disposition at all times. Introduce yourself before the interview begins, dress appropriately for the situation (important for in-person and videoconference interviews), and turn off or silence your cellular phone to eliminate distractions and disruptions.

Maintaining Focus during an Interview

Stay focused as the interview proceeds to gather needed information and to maintain the schedule you and the interviewee agreed upon. Ask one question at a time so the interviewee can concentrate on the topic at hand and so you can listen to the information shared. As suggested, aim to ask questions that encourage the participant to speak freely, and explore interesting avenues of inquiry with follow-up questions when appropriate. If the interviewee has consented to you taking notes during the session, certainly do so, but do not become distracted by trying to record everything said. Instead, write down useful quotations and keywords, and plan to fill in your notes with details after the session ends. Again, think of the interview as a directed conversation, one which you must be engaged in for it to flourish.

Let the respondent do most of the talking during the interview interaction, bearing in mind that your purpose is to collect data. To this end, maintain an objective attitude during the interview by gathering the information you need rather than offering your viewpoints on topics discussed.

Ending an Interview

At the conclusion of the interview, find out if the participant wants to check the accuracy of the information you have gathered, bearing in mind that correctness is one of the defining attributes of technical writing (see the "Introducing Technical Writing" chapter for further information on this point). You might offer to email the interviewee a typed copy of your interview notes, for instance, to achieve this purpose and to underscore your dedication to ethical research.

Once the interview is finished, consider sending the participant a thank-you letter or email to show that you appreciate that individual's contribution to your research. Select the genre of communication that you feel most appropriately fits the situation, bearing in mind that interviews provide valuable opportunities to establish professional contacts. When carefully composed, letters can make lasting impressions on recipients since they take time and effort to prepare. The "Writing Print Correspondence" chapter of this textbook provides information about designing and writing letters.

Take Certain Considerations into Account When Interviewing from a Distance

If you decide to conduct a phone, videoconference, or email interview, carefully consider how those modes of communication might affect the interview situation. For instance, in comparison to an in-person interview, a phone interview does not offer an opportunity to observe a participant's body language—body language that may provide insight into how he or she feels about the interview interaction or the topics being discussed. Since people sometimes speak very quickly on the phone, you will also need to be prepared to ask the participant to repeat points if necessary so that you are able to record them in your notes. If you opt to videoconference with an interview participant, be sure to select a quiet environment for the call and one that is not visually distracting or embarrassing since the interviewee will be able to see you during the data-gathering session. In addition, familiarize yourself with the videoconferencing platform before the interview begins so you can focus on discussion with the participant rather than on technology issues. If you decide to conduct an interview via email, the asynchronous (non-simultaneous) nature of the communication means you will not receive real-time answers to interview questions; therefore, consider establishing a reasonable deadline for responses. Emails do have the advantage of producing automatic transcripts of communication exchange, meaning that interview questions and participant responses are recorded in textual form. Remember to craft email interview questions carefully before sending them to ensure they maintain an objective and respectful tone, are concise and easy to understand, and are free from errors. When necessary, be prepared to ask follow-up questions in subsequent email messages to track down needed information from a participant.

Conduct Research Ethically and with Care

Regardless of whether research draws upon primary or secondary data or gathers quantitative or qualitative data or both, it presents an exciting way to advance knowledge—if it is conducted ethically and with care. In particular, interviews can be a useful means of collecting original research data when they are thoughtfully planned and executed, as this chapter emphasizes.

Activity A: Explore Research Approaches in Further Depth

To explore research approaches in further depth, read an essay entitled "Introduction to Primary Research: Observations, Surveys, and Interviews" (Driscoll, 2011) at https://wac.colostate.edu/books/writingspaces2/driscoll--introduction-to-primary-research.pdf. Afterwards, consider the essay's application to your own experiences or coursework by answering the questions on page 173 of the text. Be prepared to talk about your answers in class.

Activity B: Experience a Recorded Interview

Having read through Driscoll's (2011) piece and the current textbook chapter, work with a partner to devise a bullet list of best-practice guidelines for conducting informational interviews. Keep these guidelines in mind as you proceed through the rest of this activity.

<u>Activity Segment One:</u>

To better understand how interviews work and to discover how they can be used to gather and communicate scientific information, listen to a podcast entitled "Sounds Fishy: Acoustic Studies of Florida Fish" at https://mote.org/podcasts/item/sounds-fishy-acoustic-studies-of-florida-fish (Nickelson & Rutger, 2017), which was produced by Mote Marine Laboratory and Aquarium, a research institute that studies aquatic life. The podcast is one episode of Mote Marine's *Two Sea Fans* podcast series; according to the institute's website (Mote Marine Laboratory and Aquarium, n.d., para. 1), the purpose of the series is "to help listeners become more ocean-literate." While listening, take notes on the following questions.

1. How does the podcast appeal to a general audience?
2. How do the interviewers, Hayley Rutger and Joe Nickelson, encourage Dr. Jim Locascio, Manager of Mote Marine's Fisheries Habitat Ecology Program, to make his research easy for a general audience to understand?
3. How does the scientist point to a direction for future research?
4. How does the scientist explain the significance of his sound research?
5. How does the scientist refer to published research?
6. How does interviewer Hayley Rutger encourage the scientist to discuss his other research?

7. How does interviewer Joe Nickelson encourage the scientist to discuss why the general public should care about his research?
8. Why does interviewer Hayley Rutger relate the scientist's findings to human hearing?

Activity Segment Two:

Share your answers to the questions in activity segment one with the class. In addition, discuss your responses to the following items with the class.

1. How is your bullet list of best-practice guidelines reflected in the podcast interview?
2. Consider the podcast in terms of interview content, interview questions, and interview techniques. How does it help to inform your own interview practices?
3. Why might a podcast be a useful genre for communicating science, particularly to a general audience?

Homework: Interview Someone about the Use of Technical Communication in the Workplace

Collect original data by conducting an interview with someone who works in a field that interests you to discover how that person uses technical communication in the workplace. You are responsible for identifying and contacting your interviewee and for developing your own interview questions. Refer to the bullet list in the "Devising a List of Interview Questions" section of this chapter for example questions. The interview should last approximately 20 minutes.

Prepare for the interview by reviewing published sources to investigate how writing is approached in your field, what forms of workplace communication are used in your field, and/or how much importance is placed upon effective communication skills in your field. You may also wish to explore connections between clear, coherent, concise, concrete, complete, and courteous writing—in other words, attributes of effective technical communication—and success on the job. This research should help you construct effective interview questions.

Summarize the highlights of your research in a short report, formatted as a memo. Consult the "Writing Print Correspondence" chapter of this textbook for guidance when composing and formatting your memo. When writing, address the following questions:

- What themes do you recognize in the published research?
- How does your interview data relate to these themes?

Your report should draw upon at least three sources, one of which must be your interview data. Remember to cite and reference outside sources of information in the report.
Use the following multipage handout, produced by Student Academic Success Services, Queen's University (2018), to refine your report.

Common Problems in Grammar

Several common grammatical problems occur in academic writing:

- Sentence faults—comma splices, run-on sentences, sentence fragments
- Problems with pronouns (please also see our handout, Pronouns)
- Inconsistency in voice or point of view

Sentence Faults

Most sentence faults and problems with punctuation are the result of a lack of understanding of how the parts of a sentence fit together.

Sentences are made up of phrases and clauses. **Phrases** are centred around **nouns** (*in the van, by early morning*). **Clauses** are centred around **verbs** (*she runs the marathon; when he saw the ruins*). Sentences are constructed from two types of clauses: **main** (or **independent**) **clauses** and **subordinate** (or **dependent**) **clauses.**

A **main clause** contains a subject (noun) and a predicate (verb) and expresses a complete thought.

> *Decision-makers must carefully examine only the best options.*

A **subordinate clause** contains a subject and a verb but does not express a complete thought.

> *Because the policy options are so numerous...*

(Besides *because*, other words that begin subordinate clauses include *although*, *since*, *when*, *while*, and *despite*.)

Combining clauses is what sentence building is all about.

Joining a subordinate clause with a main clause requires only a comma:

> *Because the policy options are so numerous, decision-makers must carefully examine only the best options.*

Difficulties arise when **two main clauses are joined together**. Options for punctuation include the following:

- **A period:** *Policy options are numerous. Decision-makers must carefully examine only the best options.*
- **A semi-colon:** *Policy options are numerous; therefore, decision-makers must carefully examine only the best options.*
- **A comma with a coordinating conjunction:** *Policy options are numerous, so decision-makers must carefully examine only the best options.*

Other coordinating conjunctions are *and, but, yet, or, nor* and *for*.

Comma Splice

Do not use a comma to join two main clauses in a sentence: for example, *Policy options are numerous, decision-makers must carefully consider only the best options.* A comma is too weak a form of punctuation to use in this case.

A common **comma splice** error occurs when two main clauses are joined with a conjunctive adverb (however, therefore, thus, etc.) and only a comma.

> **Incorrect**: *The proposed policies are not necessarily right, however, they have survived much careful scrutiny.*
>
> **Correct:** *The proposed policies are not necessarily right; however, they have survived much careful scrutiny.*

Run-on: Joining two main clauses with no punctuation is called a **run-on or fused sentence.**

> **Incorrect:** *The employers and staff conducted successful negotiations thus they were able to agree on a contract beneficial to all.*
>
> **Correct:** *The employers and staff conducted successful negotiations; thus, they were able to agree on a contract beneficial to all.*

A sentence fragment occurs most often when a subordinate clause is incorrectly used as a sentence on its own.

> **Incorrect:** *Although their co-workers were opposed.*
>
> **Correct:** *Members of the staff decided to cross the picket line, although their co-workers were opposed.*

When a main clause is added to the sentence, the fault is corrected.

Problems with Pronouns

(Please also see our handout on Pronouns, which includes helpful tips for using pronouns clearly and inclusively.)

A common grammatical error occurs when **the pronoun in a sentence does not agree with its antecedent**. The need to use non-sexist language—to avoid a sentence such as *Every employee should hand in his report by Friday—gives* rise to the following kind of error:

> *Every employee should hand in their report by Friday.*

This sentence is incorrect because **the singular subject** *every employee* **does not agree with the plural pronoun** *their.*

Below are some possible solutions to correct the error:

- Use the plural as in *All employees should hand in their reports by Friday*
- Use an article such as *A successful manager knows the organization* instead of *A successful manager knows his organization.*
- Repeat the noun by saying *The Branch will provide each new employee with training on the equipment. If the employee is already familiar with the equipment, training will be optional* rather than *...If he is already familiar with the equipment, training will be optional.*
- Reword the sentence, as in *The editor should work alone to verify all details* rather than *The editor should work on his own to verify all details*.
- As a last resort, use he or she, his or her or him or her as in *Put each employee's evaluation in his or her personal file* instead of *Put each employee's evaluation in his personal file.* Try to use this construction sparingly.

A second problem with pronouns – **the use of broad references with *this*, *that*, and *it*** – often causes confusion for the reader.

When you use ***this***, ***that***, or ***it*** by itself, make sure the reader fully understands what the pronoun renames and replaces. Make sure the pronoun reference isn't ambiguous (i.e., that the pronoun doesn't refer to more than one thing). If the pronoun refers to a noun that has been implied but not stated, you can clarify the reference by explicitly using that noun.

Vague: With the spread of globalized capitalism, American universities increasingly follow a corporate fiscal model, tightening budgets and hiring temporary contract employees and teachers. ***This*** has prompted faculty and adjunct instructors at many schools to join unions as a way of protecting job security and benefits.

Clear: With the spread of globalized capitalism, American universities increasingly follow a corporate fiscal model, tightening budgets and hiring temporary contract employees as teachers. ***This trend*** has prompted faculty and adjunct instructors at many schools to join unions as a way of protecting job security and benefits.

***The possessive pronoun "its" never takes an apostrophe.** "It's" is a contraction for "it is."

Incorrect: *The company's name is included in **it's** logo.*

Correct: *The company's name is included in **its** logo.*

Inconsistency in Voice

A final grammatical problem is **lack of consistency of voice or point of view**. Again, the subject must agree with all of the pronouns in a sentence.

Incorrect: *If one is a decision-maker, they must carefully consider all best options.*

Correct: *If one is a decision-maker, one must carefully consider all best options.*

Incorrect: Canadian *citizens enjoy many civil rights and freedoms. We are able to travel and speak freely; they can even criticize the government without negative repercussions.*

Correct: *As Canadian citizens, we enjoy many civil rights and freedoms. We are able to travel and speak freely; we can even criticize our government without negative repercussions.*

Care should be taken to ensure that the point of view is consistent throughout the piece of writing.

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Unit VI: Employing Strategies for College Success

Getting Organized

Operating in Online Courses

Managing Time

Understanding Assignment Expectations

Working with Others

Using Resources Effectively

Reading Actively

Taking Notes

Maintaining a Productive Writing Schedule

Working with Feedback

Understanding Disciplinary Expectations for Writing

Reflecting on Performance

Getting Organized

Dawn Atkinson

Chapter Overview

This chapter offers organizational tips to help you prepare for the demands of college life. Effective students, like effective writers, frequently use techniques to stay focused on accomplishing goals; use the guidance in this chapter to devise organizational strategies in order to maintain momentum during your studies.

Develop a Plan for Your Education

When starting college, some students may not know what they want to do next or even why they want to continue their educational training. The following vignettes, adapted from Chancellor's Office, California Community Colleges (2016, "A Diverse Body of Students"), reveal some of the uncertainties students might face when enrolling in college.

Andre: I'm not sure I want to be in college. Why am I here? Because my parents say if I don't go to school, I will have to work full time and move into my own place. How can I possibly make a plan for my education when I don't have a clue about what I want to do in life, let alone in college?

Sara: So I think I really messed up. I blew off my college placement tests, and now I have to take developmental writing and math classes. Are these classes going to completely derail my college career? How are they going to affect my education plan?

Desmond: I retired last year, but I knew I would be happier if I kept my mind active by taking college courses. Do I need an education plan?

Olivia: I was a straight-*A* student in high school, but then my mom got sick, and I had to stay home and help take care of her. I want to become a doctor and need to develop an education plan that sets me up to transfer to a university with a medical school after I finish my first two years of college.

Mija: I haven't been in school for five years, and I'm terrified that I've forgotten how to be a student. On top of that, I have two small children and a husband who says he wants me to go back to work. I know I can't make much money with just a high school diploma. I can't waste any time. Everything I take in college has to count toward my nursing major. I need a very detailed and focused education plan.

Abdul: I'm an international student who just arrived on campus. I know I want to major in petroleum engineering, but I don't know what courses I need to take for this degree or which courses my scholarship will cover. What is an education plan?

Maria: Since I like to write and read, I've signed up for two writing courses my first semester in college. I want to pursue a job that requires strong writing skills, but I'm not sure what to major in. Can someone help me connect my interests with a career focus by developing an education plan?

Jim: I'm in college on a football scholarship. To keep my scholarship and remain on the football team, I have to maintain a certain grade point average and develop an education plan that enables me to graduate in four years.

Edgar: I work full time and have a family. My employer told me I have gone as far as can in the company without a bachelor's degree. I earned a few college credits by taking dual enrollment classes in high school, but I'm not sure they're worth anything anymore. What education plan should I follow to complete a bachelor's degree in business as soon as possible?

Michelle: I receive veteran's benefits to attend college after having served in the military. To make full use of these benefits, I need to develop a careful plan for my education.

What themes do you detect in the vignettes? How do the vignettes resonate with your own experience as a college student?

Depending on what college you attend, you may have access to an advisor, counselor, mentor, or professor who can help you think about how to align career aspirations and interests with educational goals. That individual, in other words, can help you develop a plan for your education. If possible, meet with this person when you first begin college and periodically thereafter to arrange your course schedule, discuss options for majors or programs of study, and feel confident about completing the necessary requirements for graduation. The following information, adapted from Chancellor's Office, California Community Colleges (2016, "The S.T.E.P. Process"), details further benefits of working with someone at your college to develop an education plan.

- With a plan in place, you are less likely to spend time and money on extra courses that do not tally with your degree program.
- An education plan can help you track progress and stay focused, but it does not have to constrain your ambitions. Many college students change their majors at least once, and you are not expected to have everything figured out on the first day of classes. A plan will simply guide your efforts in college so they directed toward an aim.
- If you are an athlete or receive veteran's benefits, a scholarship, or other financial aid, you may need to maintain a certain grade point average and demonstrate progress toward your educational goals to meet eligibility requirements. Your education plan should take these factors into account; the plan will help you keep academic commitments and goals fresh in your mind throughout each school year.
- An education plan will help you anticipate sequential sequences of courses and achieve a balance of more- and less-challenging courses rather than cramming those together into one semester.
- Careful planning minimizes the risk that you will have to extend your studies to complete a required course that is not available every semester.

In summary, when students know how their courses apply to their degrees and can see their progress in education plans, they can confidently advance toward their goals. Develop a relationship with an advisor, counselor, mentor, or professor early in your college career in order to create an education plan so that you have a structure by which to organize your studies.

Devise and Keep a Schedule

Although an education plan can be helpful for achieving long-term goals, successful students also prepare for the short term by keeping track of assignment deadlines, quiz and exam dates, work schedules, and other responsibilities. An inexpensive paper planner or calendar can help manage all of these things—the confidence of knowing that you have a weekly, monthly, and semester-long schedule arranged can help relieve stress associated with the unknown, thereby enabling you to focus on other, more productive matters, such as conducting research for assignments, meeting with classmates for study sessions, and revising papers. Some folks like to use wall calendars for this purpose, while others prefer notebook-style planners; select an option that works best for you, and be diligent about making notations on it. Maintaining a planner is a straightforward way to hold yourself accountable for meeting responsibilities.

Organize Course Materials

Think of effective organization as a way to boost confidence in college. If you bring all the materials you need to class and have them arranged so you can find things easily, it stands to reason that you will be able to focus on lessons without worrying about other issues, such as not being able to find a highlighter, pencil, or handout in your backpack.

A three-ring binder offers a simple, inexpensive means for organizing course materials. Keep your syllabus, class schedule, lesson handouts, assignment sheets, rubrics, homework, notes, and blank paper in this binder, and bring it to class every day so you are prepared during lessons. Date handouts and notes, and file them chronologically in the binder to keep track of materials as the semester progresses. You might decide to use one small binder for each class or divide a large binder into sections to visually separate course paperwork so that you can locate it easily. Either way, the binder will keep things together in one place for easy retrieval.

In addition to the binder, bring your textbook to class every day. Many instructors refer to the textbook or ask students to complete activities using the book during lessons, and it is your responsibility to be prepared for these situations. Plus, you might need to access a section of the textbook during class to make notes, so it is best to have the book handy at all times.

A high-capacity flash drive can serve as a small, portable tool for filing written documents. Create a different file for each course and sub-files for each assignment so that you can keep class materials and assignment drafts together. A flash drive will easily fit in a backpack or other school bag and can be carried around for easy document retrieval.

Beyond confidence boosting, staying organized can help you maintain focus when working on research and writing projects. If you have a clear system of organization for notes and source materials, you are much less likely to confuse source writers' thoughts, language, and content with your own and thereby avoid academic integrity violations.

Activity: Think Further about Organization and Other College Success Strategies

First, decide how you want to use the guidance provided in this chapter, and discuss your ideas with a classmate.

Now listen to the audio podcast episode “How to Do Well (and Be Happy!) in College” (Nadworny, 2019), which aired on *National Public Radio*. The podcast can be found at https://www.npr.org/2019/09/03/757161013/how-to-do-well-and-be-happy-in-college. While listening, take notes on the following questions.

1. What are the six takeaways mentioned in the podcast?

2. What are some tips given for taking notes?

3. How many times do scientists suggest people should try to retrieve a correct answer in order to learn it? Why is this the case?

4. What is the Pomodoro technique?

5. What are the effects of sleep deprivation?

Having listened carefully to the podcast, now practice the two things technique by answering the following questions. Be prepared to share your responses with the class.

1. What are two things you learned from the podcast?

2. What are two things mentioned in the podcast that you want to remember?

Homework: Discuss Organization and Other College Success Strategies in a Letter

Read the following documents.

- "Getting the Most from Lectures" (The Learning Center, University of North Carolina at Chapel Hill, 2020) at https://learningcenter.unc.edu/tips-and-tools/getting-the-most-from-lectures/
- "Knowing How to Study Can Mean the Difference between Success and Failure for First-Generation Students. Here's How Instructors Can Help" (McMurtrie, 2019) at https://www.chronicle.com/article/Knowing-How-to-Study-Can-Mean/246644

Afterwards, write a block-formatted letter to your instructor in which you address the following questions:

- What organization and other college success strategies will you use to maintain momentum during your studies?
- How do these differ from your current study strategies?
- How will you use the guidance provided in the readings, this chapter, and the podcast?

Remember to cite and reference any outside sources of information you use. Consult the "Organizing Paragraphs" and "Writing Print Correspondence" chapters of this textbook for help with writing and formatting your letter.

After you have drafted your letter, use the following multipage handout, produced by the Writing and Communication Centre, University of Waterloo (n.d.), to ensure your text is clear and concise.

WRITING CONCISELY

Concise writing uses the **fewest words necessary** to accurately convey an idea and should be the goal of every university-level writer. Writing concisely is challenging because it requires significant attention to detail regarding **word choice**, **sentence structure**, and **organization**. When achieved, concision increases a text's overall **clarity** and **persuasiveness**. This handout outlines a number of strategies you can use to achieve concision in your writing.

Early in the writing process, many writers need to focus more on getting their ideas down. You do not need to be overly concerned about **reducing wordiness** while drafting, but you should pay careful attention to the concision of your work while **revising** and **proofreading**.

Concision Strategies

Cut Meaningless Words and Phrases

One contributing factor to wordy writing is the addition of **unnecessary words**, **phrases**, and **ideas**. Here are some things to avoid:

Meaningless words and phrases

Avoid clichés, idioms, and colloquial (overly conversational) expressions.

Wordy	*e.g., Rather than* ***taking the bull by the horns****, she was* ***quiet as a church mouse****.*
Concise	*e.g., She avoided* ***confrontation*** *by remaining* ***silent****.*
Wordy	*e.g., The bridge is unstable* ***due to the fact that*** *it was constructed with inferior material.*
Concise	*e.g., The bridge is unstable* ***because*** *it was constructed with inferior material.*

Filler words, all-purpose words, and unnecessary qualifiers

Wordy	*e.g.,* ***All things considered****, climate change should be given more attention,* ***in my opinion****.*
Concise	*e.g., Climate change should be given more attention.*
Wordy	*e.g.,* ***Last but not least****, researchers found several connections between the subjects.*
Concise	*e.g.,* ***Lastly****, researchers found several connections between the subjects.*

Vague words

Use specific wording whenever possible.

Wordy	*e.g., Engineering is comprised of many **aspects**.*
Concise	*e.g., Engineering can be **subdivided into many disciplines**.*
Wordy	*e.g., Historical context is an **important factor** to consider while writing literature reviews.*
Concise	*e.g., Historical context **must be considered** while writing literature reviews.*

Cut Unnecessary Repetition

You should avoid repetition in your writing because it disrupts the flow of your paper and can bore your reader. Here are some things to avoid:

Repetition of the same word within a sentence when used in two different ways

Wordy	*e.g., He received a **wound** from the clock while he **wound** it.*
Concise	*e.g., The clock **injured** him while he **wound** it.*
Wordy	*e.g., He was **right** to assume his subjects are **right**-handed.*
Concise	*e.g., He **correctly** assumed his subjects are **right**-handed.*

Redundancy of ideas

Wordy	*e.g., Subjects with **little technical training** tend to perform poorly due to their **lack of technical experience**.*
Concise	*e.g., Some subjects' **lack of technical experience** resulted in poor performance.*
Wordy	*e.g., **The reason** she moved is **because** she was offered a better position.*
Concise	*e.g., She moved **because** she was offered a better position.*

Words and phrases that express an idea that another word implies

Wordy	*e.g., **As already stated above**, beluga whales use sounds and echolocation to hunt in dark or turbid waters.*
Concise	*e.g., **As stated above**, beluga whales use sounds and echolocation to hunt in dark or turbid waters.*

Simplify Sentences

Where possible, you should ensure that your sentences are as clear and direct as possible. If you can eliminate words or phrases in your writing without disrupting or diluting meaning, you should consider doing so. Here are some things to avoid:

Expletive constructions (it is / there is / there are)

Wordy *e.g., **It is** challenging to read Shakespeare.*

Concise *e.g., Reading Shakespeare is challenging.*

Wordy *e.g., **It is** significant that a study of ethics complaints against social workers found that half of these involved violation of professional boundaries.*

Concise *e.g., **Significantly**, a study of ethics complaints against social workers found that half of these involved violations of professional boundaries.*

Verb and noun clusters

Replace verb + noun clusters with a single verb.

Wordy *e.g., The researchers **conducted an investigation of the effects** of caffeine on students writing timed examinations.*

Concise *e.g., The researchers **investigated the effects** of caffeine on students writing timed examinations.*

Unnecessary helping verbs

Eliminate unnecessary helping verbs.

Wordy *e.g., The teacher **could understand** why her students failed the test.*

Concise *e.g., The teacher **understood** why her students failed the test.*

Short but related sentences

Join short, related sentences with appropriate punctuation, such as a comma (or several commas).

Wordy *e.g., Many of his fabrications lay in plain sight for years. One of them was published in the respectable journal Science.*

Concise *e.g., Many of his fabrications, one of them published in the respected journal Science, lay in plain sight for years.*

Passive voice

Where possible and appropriate, use active voice in writing.

Wordy *e.g., The reaction **was catalyzed by** the introduction of light.*

Concise *e.g., The introduction of light **catalyzed** the reaction.*

There are some kinds of writing where passive voice may be appropriate. See our handout on passive and active voice for more information.

Rewrite Jargon

Jargon is **field- or discipline-specific language** that your reader may not understand. In deciding whether or not to keep specific terminology, consider your audience and their level of knowledge about your topic. Here are some things to avoid:

Convoluted/complex language

Use plain language wherever possible.

Wordy *e.g., The author's **expostulation impugns litterateurs of yore**.*

Concise *e.g., The author's **argument disproves earlier scholars**.*

Technical terminology without definition or explanation

When introducing technical terminology, it is generally appropriate to explain it the first time it is mentioned.

Wordy *e.g., The photographer **fixed the negative**.*

Concise *e.g., The photographer **removed unexposed silver from the negative in a solution of chemicals**, thereby "fixing" the image.*

Although the previous example's wordy version is shorter than the concise one, concision is as much about **clarity** as it is about length. Make sure that you are meeting your reader's needs in both content and structure.

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Operating in Online Courses

Dawn Atkinson

Chapter Overview

While attending college, you may take one or more online courses. This chapter aims to help you understand how online courses work, how crucial organization is to success in online courses, and what communication skills and reading strategies facilitate online learning.

How Online Courses Work

If you take a course online, you will be expected to engage with lessons, course materials, classmates, and your instructor in a virtual classroom rather than in a physical one. To encourage such engagement, many online college classes are delivered via course or learning management systems, which provide various software tools and digital environments for interactions (Center for Teaching, Vanderbilt University, 2019, para. 1). This type of system may offer some of all of the following features (adapted from Center for Teaching, Vanderbilt University, 2019, para. 1):

- Space for an instructor to post course materials, such as lesson handouts, multimedia presentations, assignment specifications, readings, the syllabus, class policies, rubrics, and the class schedule.
- Submission spaces, which are sometimes linked with text-matching detection software, where students can post assignments and review feedback.
- A gradebook where an instructor can record grades and students can view their marks.
- An email tool that allows course participants to send messages to the entire class or to a subset of the class.
- A chat tool that allows for *synchronous communication* (real-time communication) among course participants.
- A discussion board that allows for *asynchronous communication* (time-lapse communication) among course participants.

This type of system helps to organize what happens in online courses, and, as long as you have access to the internet, you should be able to access it on any digital device. Learn how to use this type of system when a course begins so that you can function effectively during the semester; if you struggle, reach out to the learning or computer support team at your university, or ask your instructor for guidance.

Myths and Realities of Online Courses

Let us now consider a number of myths and realities of online courses, which are adapted from Chancellor's Office, California Community Colleges (2016b, "Common Myths"). While reading, consider how your own viewpoints about online courses relate to the information provided.

MYTH 1: I've heard that the online course is way easier than taking the same course on campus. You don't have to go to class—you just have to hand in assignments and you're done.

> The Reality: The workload for a course is oftentimes the same regardless of the way it is delivered. However, online classes typically involve more reading because you have to read all of your teacher's instructions rather than hearing them in class. In an online environment, you also need to be self-disciplined and motivated to complete work because you will not see your instructor every session.
>
> The good news is that online classes will give you the flexibility to study at times that work with your schedule. This factor can benefit students with busy lives who are trying to juggle school, work, family, and other responsibilities. Plus, in an online class, you are not limited by class times, so you do not have to worry about conflicts with other classes.

MYTH 2: If I'm taking an online class, I can submit assignments whenever I want. I'll just get all the assignment directions from the instructor right away and fly through the class in two weeks rather than wasting a whole semester.

> The Reality: Most online college courses are not self-paced. Some instructors reveal all the assignments ahead of time, while others communicate course topics and assignment directions incrementally. The key is to follow the pace the instructor establishes. Give yourself time to focus on the course material, and dedicate time and effort to assignments—do not try to rush through the course just to get it done. In short, the more you put into an online (or face-to-face) course, the more you will get out of it.
>
> The good news is that students who have successfully completed online courses have found that the organizational skills they used in those courses helped them to function more effectively in face-to-face courses.

MYTH 3: Instructors randomly call on students for answers during face-to-face classes, but in an online class I can zip through unnoticed.

> The Reality: Please do not be fooled by the illusion of anonymity in a virtual classroom. Even though you and your instructor may not be able to see each other, the instructor can access data about the quantity and quality of your course participation. Instructors want to know how students are doing, what they are doing, and how they perceive the class, so participation is a key component of any class.

The good news is that online learning provides an opportunity to develop a meaningful relationship with your instructor and classmates. In an online course, everyone has a chance to provide input, and you have time to craft your thoughts before engaging in discussion. Another benefit of online learning is that your participation is not bounded by the end of a class period.

MYTH 4: Email means instant communication, and I know my teacher checks her email all the time. This means that if I don't understand something or have a last-minute question about an assignment, I can email her and she will respond right away. She's definitely up at 10:00 pm, and it would only take her two minutes to write back with an answer.

The Reality: Most instructors provide a maximum email turnaround time, typically between 24 and 48 business hours. As a responsible student, you need to plan ahead as much as possible by having an alternate solution if you do not hear back from your instructor before an assignment is due. Some instructors arrange a discussion thread in their course or learning management systems where they encourage students to answer one another's questions. Another option would be to reach out to a classmate and exchange private emails to support each other throughout the semester. Because you are not meeting in person with others every week when taking an online course, you might feel a bit isolated. The tactics outlined here offer ways to connect with others in the course.

The good news is that students who develop effective communication methods, learn to take personal responsibility for their own work, and are able to cooperate and collaborate well in a virtual environment will find these skills highly transferable and valued in their personal and professional lives long after an online course is over.

MYTH 5: If I didn't finish an assignment on time, I used to tell my instructor that I accidentally brought the wrong notebook to class or that my printer ran out of ink. Now I can just say that my computer crashed, that I accidentally deleted my finished assignment, or that I just sent in the wrong attachment.

The Reality: Do not rely on excuses to get by in college. Most instructors have heard excuses before and can determine when students are being untruthful. Make sure you fully understand your instructor's expectations, which will likely be communicated on the course syllabus, and comply with them in a timely manner. Some instructors provide checklists for meeting deadlines; if your instructor does not, create your own assignment checklists. In addition, maintain communication with the instructor if you need help or have questions.

The good news is that the organization and study skills you hone while taking an online course can support your success in future courses, whether they are in online or face-to-face learning environments.

Have you ever taken an online college course? How does the information about myths and realities of online courses resonate with your own experience as a college student?

Online Courses Demand Organizational Skills

If you are taking or are considering taking an online course, know that such courses demand organizational skills on your part. For example, in a face-to-face learning environment, the instructor will likely remind students multiple times about deadlines for homework and papers, required reading assignments, and dates for quizzes and exams; however, students have to keep up with such things themselves when operating in online environments. Use the following guidance, which is adapted from Chancellor's Office, California Community Colleges (2016d), to think about organizational techniques you might use when taking an online course.

Organize Your Environment

Before you jump into an online course, identify your study preferences. Use the information presented to answer the questions about your study preferences.

Some individuals feel that they are most alert and fresh in the mornings, while others prefer to work at night after they have finished other things they need to do during the day. Identify what time of day works best for your studies, and create a schedule to stay on track with your coursework. What time of day are you most productive?

Some students prefer to work at home; others find that setting too distracting. Some prefer the quiet atmosphere of a library, while others appreciate the background activity of a café. Be sure to have a secondary study location in mind in case your first location is not available on a certain day. Also, know where you can plug in digital devices when the need arises, and identify several places with free wireless internet in case the network goes down in one spot. Where will you study?

Motivation can be influenced by noise level, temperature, thirst, and hunger, for example, so plan to bring earplugs, a sweater, a drink, food, and anything else you need to your study space in order to focus on coursework. What conditions will enable you to concentrate most effectively in your study space?

Organize Your Course Materials

When taking on online course (or any course for that matter), you will also need to decide how to organize your class materials. Some students like to work with printed copies they can write on, while others appreciate the ease and flexibility that comes with digital copies. Some students use a combination of both, depending on the course or assignment. Regardless of your preferences, set up a reliable and convenient system to manage things you will need for your course.

If you like to work with printed copies, find a place where you can keep together all your school materials and supplies: books, notes, assignments, binders, pens, highlighters, paper, a stapler, a hole punch, and a calendar.

If you like to work with electronic copies, you will need to identify a place where you can store these. You may want to store files on your personal computer or on a flash drive. Alternatively, you might decide to email assignments or papers to yourself and use cloud (online) storage to keep and organize files. In the latter case, check cloud-service websites for capacity limits (how much space they provide), compatibility details (what browsers they support), and features that will offer you the most value for money.

Keep at least one backup of each of your files, and store them in different places for added security. For instance, if you save your files on your personal laptop, also save them on a flash drive or in cloud storage; that way, if your computer crashes, you will still have your work.

Organize Your Time

When you enroll in an online course, be sure to read the syllabus thoroughly and become familiar with requirements and due dates. Write these down to get a sense of what the semester will look like and the pace of the course. Better yet, create a schedule or calendar that you can consult and update periodically throughout the semester. If you prefer to break an assignment into manageable pieces and schedule them accordingly, then do so. The incremental deadlines you set will establish milestones for achievement and allow you to monitor your own progress on projects.

What organizational techniques do you currently use as a student? What might help improve the organizational techniques you currently use?

Communication Skills for Online Learning

Students commonly have questions about communicating in online courses. The following information, which is adapted from Chancellor's Office, California Community Colleges (2016a, "Netiquette" – "Email Netiquette"), might help resolve your own uncertainties about this topic.

STUDENT 1: What do the differences between synchronous and asynchronous communication mean for me when taking an online course?

Answer: Online class communication often takes place asynchronously rather than in real time, giving you a chance to research, write, and edit your work instead of being asked to respond immediately to a question. Think of this as an opportunity to compose your thoughts carefully before making a response.

Synchronous sessions are similar to what you may experience in a face-to-face class. Discussions may be lively when working in this mode because interactions are immediate since everyone is in the virtual classroom at the same time. These types of interactions can also help establish class bonds.

STUDENT 2: Will my online communications be permanent?

Answer: Yes, when you communicate asynchronously online, you create a permanent record of your words. All of your electronic communication will be dated, and because of this, it can be easily organized, stored, and reviewed at a later date. Because words are enduring, it is a good idea to compose your electronic communications carefully before posting.

STUDENT 3: I generally feel more comfortable talking online than in person. Is online communication easier than face-to-face communication in a classroom?

Answer: It can be. When you communicate through email, private messages, a discussion board, or a blog, your instructor and classmates may not know much about your individual characteristics. Some students find that this environment gives them extra confidence if they are normally shy or nervous in front of instructors or other students.

STUDENT 4: I am worried that there will be more potential for misunderstanding when I'm communicating online than when I'm communicating in person.

Answer: This is a valid concern because the teacher and your classmates cannot see your body language or hear your voice, and written words can sometimes be misinterpreted. Review your written communications in an online course carefully before posting, and remove any language that could be construed as offensive or inappropriate.

STUDENT 5: Can I make friends in an online course?

Answer: If you are normally reserved in front of people, you may feel like you can express your ideas more freely in an online environment. Discussion boards and blogs often create a sense of community as you respond to your instructor's and classmates' comments and they respond to your posts. In an online course, everyone has a chance (and is expected) to speak.

STUDENT 6: Can you give me some tips for writing effectively in an online educational environment?

Answer: Effective writing skills are vital in online courses to communicate your points. Here are some specific suggestions for crafting online written communication.

- Check your writing for spelling, grammar, capitalization, and punctuation errors.
- Keep your posts clear and concise.
- Avoid slang, offensive language, and personal attacks.
- Look for opportunities to interact and collaborate with other students in the course. If you draft a negative comment in response to someone's post, reframe it in a way that is more conducive to creating discussion. Keep in mind that it is fine to disagree with someone's views as long as your tone is respectful.

STUDENT 7: How do I go about writing a respectful discussion post?

Answer: First, make sure that you read your instructor's directions and follow them carefully. This is the most basic way to show respect for your instructor and others in the virtual classroom. Second, when your instructor posts topical questions to a discussion board and requests your informed response, take the time to compose text that is carefully written, and edit and revise your contribution before posting it.

The term *netiquette* refers to network etiquette, or the correct or acceptable code of conduct for communicating online. Netiquette includes using respectful behavior and language and acknowledging other people's privacy interests. Netiquette conventions apply to discussion posts and emails sent for purposes of an online or face-to-face course.

STUDENT 8: How do I demonstrate netiquette when emailing classmates or an instructor?

Answer: Be sure to respond to email in a timely manner, and give others sufficient time to respond to your messages. Abide by any guidelines your instructor gives regarding timeframes for responses.

In addition, if you include an attachment with your email, mention it in the body of the message. Double-check that you have included the attachment before you send the message.

Lastly, read your email messages carefully and revise any errors you detect before sending them.

Taking into account the questions and answers about online learning, help Brittany compose an email to her instructor asking when the midterm will take place. Select the correct option for different segments of the email.

1. The salutation
    a. Dear Professor Kennedy,
    b. Hi,
2. The question
    a. do u kno when the midterm will b? thx
    b. I hope you're well. I was wondering, do we have a set date for the midterm?
3. The wrap-up and sign-off
    a. Thanks for your help. Sincerely, Brittany.
    b. THANKS SO MUCH!!!!!

Now supply a rationale for each for your choices. Refer to the information presented in this section of the chapter for guidance.

Discussion Boards for Online Learning

A course discussion board provides an opportunity to engage with classmates, an instructor, and course content in an active way; still, effective discussion board communication hinges on participants' positive, productive, and substantive engagement in discussion posts. The following list, adapted from Excelsior Online Writing Lab (2020c), raises points to consider when undertaking discussion board work.

- Review the purpose of the discussion. Is there a particular question you are expected to answer? Is the discussion space intended to be a place for you to ask questions? Make sure you are responding as expected in the discussion space.
- Work with the background reading required for the discussion. Annotate the text with your own ideas and questions as you read; summarize the main ideas to test your own understanding; and stretch your understanding by applying concepts and theories to new contexts. Most discussions are designed as spaces to test out and debate ideas.

- Recognize that discussion is a give-and-take situation, a conversation. That means that you should participate frequently during discussion, offering your own ideas and responding to others. You can enter the conversation at different points, with ever-changing purposes and roles, but you need to be there on a consistent basis.
- Realize that each participant can choose from among many discussion roles and functions. You can post initial ideas, respond to ideas, summarize ideas, point out similarities and differences or trends among ideas, ask questions, add examples, extend the conversation in different directions, and bring the conversation back on point if it digresses.

Abiding by these guidelines will help to make your discussion board experience a constructive one.

Using information adapted from Excelsior Online Writing Lab (2020a), we can explore ground rules for discussion board work.

- Use a specific subject line. Using a phrase such as "response to Amir" for your subject does not tell other readers anything about the content of your response. Be brief, yet specific (e.g., Errors in Watting's Theories).
- Keep to one main idea or topic per response. If you want to comment on two different ideas, write separate posts.
- Differentiate between starting a discussion thread and responding to someone else's posting. Most discussion boards use a threaded discussion, which means that responses are indented under an initial posting. This type of indentation provides a visual cue for readers, allowing them to rapidly distinguish the different discussion topics or threads.
- Check your spelling before you finalize the posting. Most systems have a spell-check function. You may want to compose your response with a word processor and then paste or upload it into the discussion board. This is also a good idea in case there are technological issues, which can cause you to lose a post. If you create your post in a word-processing program, you can save a back-up copy of the text.
- Do not dominate the discussion. You do not need to respond to every posting from every participant. Respond selectively instead. Instructors will often establish how much online participation is expected.
- Be polite, and apply the rules of etiquette. Use standard capitalization and punctuation. Do not use all caps, as this is considered shouting; instead, use italics sparingly to emphasize points.
- Remember that many people may have access to your posts on a discussion board—other students, your instructor, college technology staff, and administrators—so write accordingly.

When grading discussion board posts, your instructor may feedback on spelling, capitalization, punctuation, sentence structure, word use, citation and referencing, and other writing matters, so be sure to attend to these issues when composing your texts.

To illustrate the nature of effective discussion board content, we will examine several comments posted in a discussion thread and consider feedback that might apply to them. To begin, read the thread in Figure 1, excerpted from Excelsior Online Writing Lab (2020b).

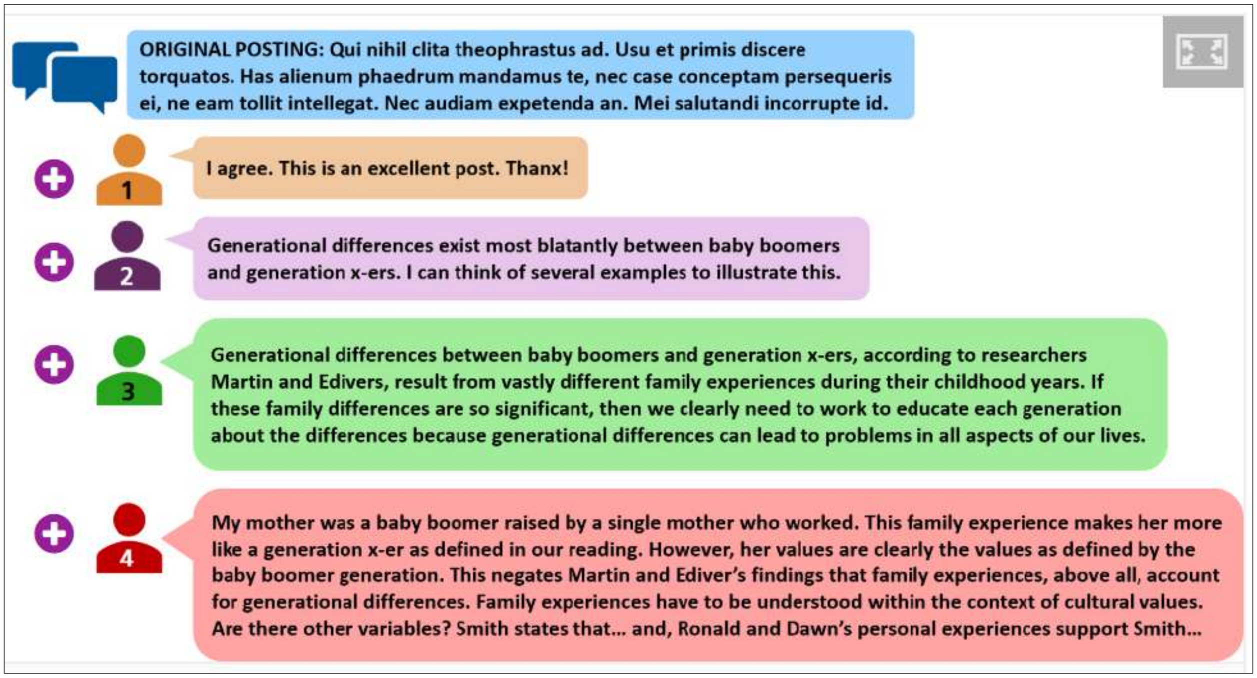

Figure 1. Example discussion board thread

Having read the discussion board comments, match the appropriate piece of lettered feedback (adapted from Excelsior Online Writing Lab, 2020b, “Activity Transcript”) to each numbered comment.

A. The student does not offer new insights or details about why he/she agrees with the post and includes a misspelled word.
B. The student makes a connection to the class reading, offers a viewpoint on it, gives reasons for the viewpoint, and makes connections to new research.
C. The student refers to classroom reading and makes a connection to experiences and observations.
D. The student offers a new, specific idea, but does not develop it.

Which post is most likely to inspire a quality discussion? Record your answer and rationale in the box provided, and be prepared to discuss your ideas in class.

Can you think of any other pieces of advice that might help to inspire substantive and constructive discussion board content beyond the points covered here?

Reading Strategies for Online Learning

Expect to do a considerable amount of reading when enrolled in an online course, including reading of webpages, online documents, textbook chapters, printed articles, discussion posts, homework directions, assignment feedback, and emails. The following information, which is adapted from Chancellor's Office, California Community Colleges (2016c, "Print vs. Online" – "Why, What, How?"), is intended to help you develop reading strategies for online learning.

Print versus Online Reading

Reading printed material is different from reading online. First, when you read something that has been printed by a reputable publishing house, you might make assumptions that the work is authoritative because the author had to be vetted by the publisher and multiple editors. In contrast, online materials can be written or posted by anyone, which means you have to carefully evaluate the authority of the information presented, for instance, by determining who the author is and what qualifies that person to write on the topic. Second, in the print world, texts may include figures, tables, or other visual elements to supplement the author's writing; in the digital realm, hyperlinks, audio, and video may also be embedded in the text, which changes the reading experience since online texts can be interactive in ways that printed material cannot. While these features of online texts allow readers to interact with content in an active way, they can also be distracting: rather than reading the text, some individuals might be more interested in clicking on hyperlinked items, which decreases time spent focusing on the material. Lastly, when reading printed material, you generally read sequentially, from the first word to the last. Maybe you will flip to an index or reference page, but otherwise the way you read is fairly consistent and straightforward. When reading online, you can quickly be led into an entirely new area of reading by clicking on links.

As hinted at, the differences between reading print and online material have some practical consequences for *reading comprehension*, or how you understand and apply what you are reading. Ask yourself these questions when reading online to focus on the why, what, and how of reading comprehension.

- *Why?* Why am I being asked to read this material? In other words, what instructions has my professor given?
- *What?* What am I supposed to get out of this material? That is, what are the main concerns, questions, and points of the text?
- *How?* How will I remember what I just read? In many cases, this means taking notes and defining key terms.

Applying the why, what, and how questions to your online reading may help you comprehend the material and its purpose, retain important points, and structure your notes for future reference.

Questions and Answers about Online Reading

The following questions and answers, adapted from Chancellor's Office, California Community Colleges (2016c, "Student Q&A 1" – "Student Q&A 3"), may address lingering uncertainties you have about reading online.

QUESTION: I'm so used to reading printed texts, and I actually prefer them because I don't get distracted as easily as I do when I'm online. So how can I keep from getting distracted when reading online?

> Answer: When you read online, the hyperlinks, images, audio, and video interactivity embedded in the text can be a tempting distraction. Try reading a passage through at least once without clicking on any of the hyperlinks or participating in any of the interactive opportunities. In other words, get a basic feel for the passage, and then read it with the interactive components to augment your reading experience.

QUESTION: I once had a teacher who didn't want students to use their phones to read assigned texts. Why did he care?

> Answer: Avoid reading your assignments on a small phone screen because you may miss words, meanings, and content.

QUESTION: How can I improve my online reading speed?

> Answer: To read more quickly and efficiently online, avoid distractions like advertisements, pop-ups, and hyperlinks that will lead you away from the assignment. In addition, scan the page before actually reading it by focusing on keywords and phrases, headings, visuals, and topic sentences.

An Online Reading Activity

Now that you have considered some of the facets of online reading, put the information to use by working with a partner during class time to complete the following exercise, which is adapted from Chancellor's Office, California Community Colleges (2016c, "Explore a Web Page").

Imagine that your instructor has asked the class to write an argument paper that either supports or opposes the death penalty in your state. She has pointed students to the website www.deathpenalty.org as a starting place for research. Upon checking this website for information, you see a number of potential sources for your paper, which are listed below. Which articles seem like they might work best when getting started, and why? Look carefully at the titles or headlines to help determine which sources offer the best potential leads for your paper. Be prepared to discuss your responses with the class.

1. An article entitled "Federal Judge Says State Death Penalty Unconstitutional"
2. An article entitled "Lawyer Michael Millman Accepts Lifetime Achievement Award for His Work with Indigent Death Row Inmates"
3. An article entitled "The Death Penalty Failure They're Trying to Hide"
4. An infographic entitled "The First Time We Ended the Death Penalty"
5. An article entitled "Polls Show Preference for Death Penalty Alternatives"
6. A testimony from someone affected by the death penalty provided in a blog post entitled "How to Stop a Heart"
7. An article entitled "Former Florida Warden Haunted by Botched Execution"
8. An article entitled "Department of Corrections and Rehabilitation Appoints New Director of Community Outreach and Education"

Homework: Apply the Reading Comprehension Questions Discussed to an Online Text

Read an article published on the *National Public Radio* website entitled "Fake or Real? How to Self-Check the News and Get the Facts" (Davis, 2016), which can be found at https://www.npr.org/sections/alltechconsidered/2016/12/05/503581220/fake-or-real-how-to-self-check-the-news-and-get-the-facts. Take notes on the following questions as you read.

- Why am I being asked to read this material?

- What am I supposed to get out of this material? That is, what are the main concerns, questions, and points of the text?

- How will I remember what I read?

Having taken notes on the article, now compose an email to your instructor in which you do the following:

- Discuss your answers to the reading comprehension questions.
- Discuss how you will use the information presented in the article moving forward.

Apply standard conventions for professional emails when completing this task, and cite and reference any outside sources of information you use. Consult the “Writing Electronic Correspondence” chapter of this textbook for guidance when composing your message.

Remember to edit, revise, and proofread your message before sending it. The following multipage handout, produced by the Writing and Communication Centre, University of Waterloo (n.d.), may help in this regard.

SUBJECT-VERB AGREEMENT

Subject-verb agreement involves using the right verb form for the noun that holds the subject position in your sentence. If the grammatical subject of your sentence is **singular**, you use a **singular verb form**; if it is **plural**, you use the **plural verb form**. Subjects and verbs are said to **disagree** when verb endings do not correspond to the subject.

Verb Endings

Personal endings for regular English verbs:

I walk	We walk
You walk	You (plural) walk
She/he/it **walks**	They walk

Note that the only time you need a different ending is with the **third person singular form**. You also need to consider different forms with some common **irregular verbs**:

To be	I **am**	We are
	You are	You (plural) are
	She/he/it **is**	They are

To have	I have	We have
	You have	You (plural) have
	She/he/it **has**	They have

These common irregular verbs are especially important because they are also **auxiliary verbs**:

She **is** walking to school.	They **are** walking to school.
She **has** walked to school.	They **have** walked to school.

Common Errors in Subject-Verb Agreement

Errors in subject-verb agreement occur much more frequently when sentences become more complicated. Be careful of the following tricky situations:

When there are several words between the subject and verb. The tendency is to make the verb agree with the closest noun, which is not correct.

Incorrect *e.g., The **reliability** of many standard intelligent tests **have** been challenged in recent years.*

The subject of this sentence is ***reliability*** so the verb should be ***has been challenged***.

When the subjects are compound, that is, when two singular subjects are joined by *and* (A *and* B) to form a plural subject.

Incorrect *e.g., The* ***high cost and extreme difficulty*** *of implementing the project* ***was cited*** *in the explanation of its cancellation.*

The subject here is ***high cost*** **and** ***difficulty*** (two things) so the verb should be ***were cited***.

When the subjects are *who*, *which*, or *that* (the first words in adjective clauses).

Incorrect *e.g., Elena is one of the* ***many students who has benefitted*** *from the services of the Writing Centre.*

In this sentence, the word ***who*** is a pronoun that refers to plural ***students***, so the verb should be ***have benefitted***.

When the subject comes *after* the verb as in inverted sentences.

Incorrect *e.g., Under the table* ***was*** *several* ***empty beer bottles and various dirty socks***.

In this sentence, although the subject ***empty beer bottles and various dirty socks*** comes after the verb ***was***, it is still plural so the verb should be ***were***.

When the subject is a collective noun (*team*, *audience*, *class*, *family*, etc.).

Collective nouns are especially tricky because they can be singular or plural, depending on the context. Collective nouns are followed by **singular verbs** when the members of the group are functioning as a **single entity**, and by **plural verbs** when they are functioning as **individuals within the group**.

e.g., The ***class is writing*** *the exam.*

In this case, the class is functioning as a unit, so the verb is singular.

e.g., After the exam, the ***class go*** *their separate ways.*

In this case, the individuals in the class are doing different things, so the verb is plural.

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Managing Time

Dawn Atkinson

Chapter Overview

This chapter aims to help you understand expectations for college classes and provides tips for making effective use of time and getting organized.

Determine Your Approach to Time Management

Your success in college will, in large part, hinge upon developing and using effective time management strategies because college courses typically demand that students dedicate considerable time to out-of-class work. Generally, you should expect to spend two hours on out-of-class work for every one hour that you spend in the classroom. This figure may be surprising; however, considering that most college courses require students to read, study for quizzes and tests, conduct research, and complete papers and other assignments outside of class time, the expectation makes sense.

Answer Questions about Your Time-Management Style

Before we begin exploring aspects of effective time management, complete the following exercise, adapted from Chancellor's Office, California Community Colleges (2016, "Personality Profile"), to determine your time-management style. Be honest with yourself by responding truthfully about what you would do in each situation: assessing your approach to time management is an important first step in honing your time-management skills.

1. Your instructor just gave your class the prompt for an essay, and the assignment is due in two weeks. How would you proceed from here?
    a. Choose a topic and begin working on a thesis statement and essay outline immediately. It's best to get it out of the way. (early bird)
    b. Read over the prompt and let it sink in for a week or so. You'll still have one more week to finish the assignment, right? (balancing act)
    c. Read the prompt and maybe start playing around with ideas, but wait to really start writing until the day before. You swear it's all in your head somewhere. (pressure cooker)
    d. Consider how much work you have for your other classes since writing isn't your major anyway and decide to start working on the essay later. Although you might forget about the essay until a few hours before it is due, you can always ask for an extension. (improviser)

2. You are working on a group assignment that requires you to split up responsibilities with three other classmates. When would you finish your part?
    a. After one or two of the other students have submitted their materials to the group, but definitely not last. You wanted to see how they approached the assignment first. (balancing act)
    b. First because then you're done and don't have to worry about the assignment any longer. Plus, you'll be able to return to the assignment if you want to tweak anything later. (early bird)
    c. Maybe last, but definitely before the assignment due date and hopefully before any of the other group members ask about it. (pressure cooker)
    d. Definitely last. You'll wait until everyone else has done their work, so you can make sure you are not duplicating efforts. Whatever, this is why you hate group work. (improviser)
3. Your instructor just gave directions for your next assignment, but you but don't fully understand what he's asking for. What would you do?
    a. Try to figure the assignment out for yourself. You're pretty sure what he's trying to say. (pressure cooker)
    b. Send him an email two days later to ask for clarification, wait for his response, and then complete the assignment. (balancing act)
    c. Don't say anything until after the assignment is due. Other people in the class probably didn't understand the assignment directions either. (improviser)
    d. Send him an email that afternoon to clarify your understanding of the assignment directions. You want to know what he is looking for so you can complete the assignment that day. (early bird)
4. The course you are taking requires you to post on a weekly discussion forum by Sunday night each week so the class can talk about everyone's posts on Monday. When would you submit your posts?
    a. Sunday night. You always forget during the weekend. (pressure cooker)
    b. Tuesday night, after the first day of class that week. Then it's out of the way. (early bird)
    c. Friday night. You want to see what other students post first so you can collect your thoughts. (balancing act)
    d. Monday at 3:00 am. That still counts as Sunday night, right? (improviser)

5. You have an important assignment due Monday morning, and you have a social/work/family obligation that will keep you busy for most of the weekend. It is now the Wednesday before the assignment is due. How would you approach this situation?
    a. You tell yourself that you'll finish the assignment by Friday night, so you can have your weekend free, but you still have a little left to do on Sunday—no big deal. (pressure cooker)
    b. You tell yourself that you'll finish it by Friday night, and you manage this by spreading the work out over three days; however, you are sometimes distracted by preparations for the weekend. (balancing act)
    c. You tell yourself that you'll take the weekend off, then stay up late on Sunday or wake up early on Monday to finish it. It's not a midterm or final or anything, and you deserve to have a life. (improviser)
    d. You already drafted your assignment yesterday, but you suspect that it needs some work, so you make an appointment at the writing center for late Wednesday afternoon. The writing center tutor indicates that you might need to develop the points mentioned in your assignment further, so you work on it again Wednesday night. You edit and revise your work on Thursday. On Friday morning, you reread and proofread the assignment. That evening, you reread the assignment one more time to make sure you are fully satisfied with it. (early bird)

6. You have to read 80 pages before your next class meeting in four days. What would you do?
    a. You do some quick math: 80 pages divided by four days means 20 pages a day. You like to chunk it this way because then you'll also have time to review your notes and highlights and come up with questions for the instructor. (early bird)
    b. You think to yourself, 80 pages divided by two days, because it's been a long week, means 40 pages a day. This is totally doable, although I might not be able to take notes on all the reading. (balancing act)
    c. You think to yourself, I can read the 80 pages the day before class—that way I'll remember everything I read. Plus, I've done it before, so everything will be fine. (pressure cooker)
    d. You really don't like reading for class, so you skim the text for keywords and search for a summary of it online. You find a summary on a website that posts student work; although you aren't sure whether the summary is accurate, you assume that it contains plenty of valid points. (improviser)

Identify Your Time-Management Style

Now that you have some insight into various time-management styles, see if your style aligns with one of the following descriptions, which are adapted from Chancellor's Office, California Community Colleges (2016, "Identify Your Time Management Style").

PERSONALITY TYPE: The Early Bird

- Traits: You like to make checklists and feel great satisfaction when you can cross something off your to-do list. When it comes to assignments, you want to get started as soon as possible (and maybe start brainstorming before that) because this tactic helps you stay in control.
- Strengths: You know what you want and are driven to figure out how to achieve it. Motivation is never really a problem for you.
- Challenges: Sometimes you focus on getting things done as quickly as possible and do not give yourself enough time to really consider issues in all of their complexity.
- Tips for Success: You are extremely organized and focused on your schoolwork, so make sure you take time to really enjoy learning in your classes. Remember, college is not all deadlines and checkboxes—you also have the opportunity to think about big-picture intellectual problems that do not necessarily have clear answers.

PERSONALITY TYPE: The Balancing Act

- Traits: You really know what you are capable of, and you are ready to do what it takes to get the most out of your classes. Maybe you think, I've always been this way in school, or maybe you have developed this approach over time; in any case, you should have the basic organizational skills to succeed, as long as you keep your balance.
- Strengths: Your strength really lies in your ability to be well-rounded. You may not always complete assignments perfectly every time, but you are remarkably consistent and usually manage to do well in classes.
- Challenges: Because you are so consistent, sometimes you get into a rut by coasting through class rather than really challenging yourself.
- Tips for Success: Instead of simply doing what works, use each class as an opportunity for growth by engaging thoughtfully with the material and constantly pushing the boundaries of your expectations for yourself.

PERSONALITY TYPE: The Pressure Cooker

- Traits: You always get things done and almost always at the last minute. You feel you develop your best ideas right before deadlines.

- Strengths: You work well under pressure, and when you sit down to accomplish a task, you can work on it for hours. During these periods, you can be extremely focused and are able to shut out the rest of the world to get your work done.
- Challenges: You sometimes use your ability to work under pressure as an excuse to procrastinate. Sure, you can really focus when the deadline is tomorrow, but could you produce better work if you had a couple cushion days?
- Tips for Success: Give yourself small, achievable deadlines, and stick to them. Make sure they are goals that you really could (and would) achieve in a day, and do not make excuses for not meeting them. You will likely find that schoolwork is much more enjoyable when you are not constantly worried about having the time to finish it.

PERSONALITY TYPE: The Improviser

- Traits: You frequently wait until the last minute to complete assignments because you have been able to use this approach in many classes, and it has become a habit. Sometimes you miss an assignment or have to pretend that you have completed reading, but you rationalize by saying to yourself that everyone does that sometimes.
- Strengths: You think quickly on your feet, and while this is a true strength, it can also be a crutch that prevents you from being really successful in classes.
- Challenges: If you find that you lack discipline and personal accountability, your habits can be difficult to change, especially when the course material becomes challenging or when you struggle to keep up with the pace of the class.
- Tips for Success: The good news is that habits can be changed with intentional effort. Make a plan to organize your time and materials in a reasonable way, and really stick with it. Also, do not be afraid to seek help from your instructor or other learning support staff, but be sure to do it before you fall behind rather than afterwards.

Schedule Your Time

Having evaluated your time-management style, do you feel like it is optimal? Does it always work for you, or do you need to do things differently? Using information adapted from Chancellor's Office, California Community Colleges (2016, "Create a Schedule" – "Procrastination Pie"), we will explore scheduling as a practical means to manage time.

A schedule offers a straightforward mechanism for organizing the days and weeks that comprise a semester, as well as an accountability tool for tracking your progress as you work toward academic goals. Your schedule will incorporate as much detail as you find helpful. Some things, such as due dates for papers, quiz and exam dates, and deadlines for reading assignments, should be included in your schedule no matter what. But you also might find it useful to break your assignments into steps or milestones that you can schedule as well.

Your schedule will also vary depending on the courses you are taking. So pull out your syllabuses and try to determine the rhythm of the classes by considering the following factors.

- How often do your instructors expect discussion board, seminar, or in-class contributions? When are these elements due?
- Will you have tests or quizzes in your courses? If so, when are they scheduled?
- Will you have papers or other written assignments in your courses? If so, when are they due?
- Do your courses require any collaborative assignments? Be aware that such assignments typically call for a considerable time investment since groups have to schedule times for meetings and for preparing things in advance of interim deadlines.

In addition to assignment requirements, your schedule should also reflect the requirements of daily life that make demands on your time, such as childcare, paid and volunteer work, travel time, laundry, housekeeping, and grocery shopping. The best schedule will also have some flexibility built into it because you will undoubtedly experience unexpected situations and circumstances as a college student.

When considering your schedule, also take into account the following frequently asked questions and accompanying answers.

STUDENT 1: Do I really need to create a schedule as a college student? I can honestly keep track of all the deadlines for my coursework in my head.

> Answer: Yes, you really should create one. People can only juggle so many things at once, and you may forget an important deadline if something unexpected arises in your life. Also keep in mind that some instructors supply reminders about due dates and exam times, but others do not. Regardless, the expectation is that students will stay on top of deadlines and complete their work on time without being reminded to do so.

STUDENT 2: Realistically, how much time should I spend studying and preparing for each class?

> Answer: Remember that you should expect to spend two hours on coursework outside of class for every one hour that you are in class. So, if you are enrolled in 15 credits, make room in your schedule for 30 hours of class preparation time every week. In total, you will need to spend 45 hours every week working on those courses, both in and outside of class.

STUDENT 3: My life and school requirements change on a weekly basis. How can I possibly account for such differences when making a schedule?

> Answer: Integrate cushion into your schedule—in other words, open time when you have nothing planned—in case an event arises or you need to take a day or two away from coursework.

STUDENT 4: This chapter's discussion of scheduling and time management makes sense, but advance planning is also unrealistic. What's wrong with cramming? It's worked for me in the past.

> Answer: *Cramming*, completing assignments right before deadlines or studying immediately before exams, has many disadvantages. Trying to learn about any subject or memorize facts in a brief but intense period is not an effective way to tackle the higher-level learning that college courses require because you will quickly forget the information. Instead, plan to study in smaller increments on a regular basis so that your brain will absorb complex course material in a lasting way.

Finally, when considering your schedule, think about how to prioritize your time. To do so, establish your long- and short-term goals by answering the following questions.

- What needs to be done today?
- What needs to be done this week?
- What needs to be done by mid-point in the semester?
- What needs to be done by the end of the semester?

Your time is valuable, so treat it accordingly by getting the most out of it. Above all, avoid procrastination because it can have knock-on effects on future classwork and courses. In extreme cases, procrastination can affect graduation dates.

To determine whether you tend to procrastinate, consider the following situations.

- My paper is due in two days, and I haven't started writing it yet.
- I've had to pull an all-nighter to get an assignment done on time.
- I've submitted an assignment late or asked for an extension when I really didn't have a good excuse not to get it done on time.
- I've worked right up to the minute an assignment was due.
- I've underestimated how long a reading assignment would take and didn't finish it in time for class.
- I've relied on the Internet for information (like a summary of a concept or a book) because I didn't finish the reading on time.

If these sound like issues you have struggled with in the past, think seriously about whether you have the tendency to procrastinate and how you want to proceed in future classes. The following strategies may help you break the procrastination habit.

- Divide your study time into bite-sized chunks. When confronted with 80 pages of reading or 50 problems to solve, you may understandably feel overwhelmed. However, if you decide to read for one hour over or solve 10 problems over a series of days, the task is much more manageable.
- Turn off your phone, close your chat windows, and block distracting websites. A good piece of advice is to treat your study environment as if you are in a movie theater—turn all of your devices off and focus on what is front of you.
- Set up a reward system: if you read for one hour, you can check your phone for five minutes. However, keep in mind that reward-based systems only work if you stick to a personal honor code.
- Work on your assignments in a place that is reserved for study. Your bedroom, dormitory room, or house may have too many distractions, but libraries offer quiet spaces plus print and online resources that can help you complete your work.
- Use checklists to make your incremental accomplishments visible. Some people find great satisfaction in checking items off to-do lists. Be specific when creating such lists, and clearly describe each task one step at a time.
- Make constructive use of short breaks in between classes. Figure 1, adapted from McLaughlin Library, University of Guelph (n.d.), offers suggestions for how to use this time productively.

  Can you think of any other suggestions you might add to the visual?

HAVE AN HOUR BETWEEN CLASSES?

5 SUGGESTIONS TO GET AHEAD IN YOUR COURSEWORK

If you have 30 minutes or an hour between classes, you can use that time to get ahead in your coursework. Try these ideas to make the most of short blocks of study time.

EXPLORE COURSELINK

CourseLink can be full of useful tips and tools:

- Try to visit each page in your CourseLink sites
- Check out the resources your instructor has posted
- Look for practice exams or sample questions

REVIEW LECTURE NOTES

Review your notes while lectures are fresh in your mind:

- Look for gaps or unclear concepts and information
- Fill in the gaps by recalling from memory, using your textbook, or asking a classmate

TEST YOUR MEMORY

Without looking at your lecture notes, try one of these:

- Do a practice question
- Draw a diagram
- Make a concept map
- Write down what you just learned in class

BREAK DOWN A BIG RESEARCH PROJECT

Do one of these to get started:

- Review your project or assignment
- Choose a tentative topic
- Pick out key search terms
- Find 5 potential sources
- Skim an article and take notes if needed

VISIT YOUR INSTRUCTOR

Add your professor's or TA's office hours to your calendar so you know when they are available.

- Prepare questions about course materials or upcoming assignments

Figure 1. How to use short breaks in between classes to your advantage

You are probably spending considerable time, energy, and money on your classes—do not let all of that go to waste by procrastinating.

Think about the Connection between Time Management and Academic Integrity

Beyond the day-to-day implications of time management—for example, missing a bus, being late for class, forgetting about a meeting at work—consider that rushing to complete an assignment and procrastinating can contribute to lapses in judgement and mistakes where academic integrity is concerned. For instance, some students treat citing and referencing as final steps when writing papers, and, in a rush to complete their work before deadlines, may forget to acknowledge sources of information or fail to follow established documentation formats, which can lead to accusations of plagiarism or, at the very least, marks off for sloppiness. The professionals at NorQuest College Library (2020, "Avoiding Plagiarism") offer a number of quick tips to counter these issues, which are adapted for you here.

1. **Plan Ahead:** When you receive an assignment, set aside enough time to do research. You are far more likely to use a source improperly if you are rushing to meet a due date.
2. **Be Organized:** It is easy to forget where you got a piece of information by the time you finish writing, so keep your sources organized and clearly labelled. People tend to develop a system that works best for them, but here are some tips to consider:
    - Keep copies of each source you use. Save them in a folder or on a USB stick or print them out so that you can access them anytime.
    - If you write notes based on what you read, use a separate page or document for each source, and write down page numbers for the information.
    - Make sure you clearly mark in your notes when you have quoted a source directly and when you have summarized or paraphrased.
3. **Be Accurate:** Make sure that you quote and paraphrase your sources correctly.
4. **Cite from the Start:** Do not postpone citation work. Use in-text citations for every source you refer to from the very beginning of your writing, and keep track of them when you revise your drafts.
5. **Check Citations and References:** When you proofread your final draft, make sure that every piece of information you got from another source has an accurate in-text citation (having copies of your sources comes in handy here) and that each source you refer to is listed on your reference page.

Knowing that you have the time and resources to accurately and consistently cite and reference sources of information during a writing project will help you complete it with confidence.

Activity A: Develop Ideas for Dealing with Distractions

Although this chapter has discussed procrastination, distractions can also affect our ability to manage time effectively. The following in-class activity, which is adapted from Learn Higher (2017, "The Activity"), is intended to help you develop ideas for dealing with distractions.

1. List two things on sticky notes that distract you from study (one distraction per note).
2. Pass the sticky notes around to your classmates. Your classmates can write suggestions for how to handle the distractions on the sticky notes.
3. Share your classmates' suggestions with the whole class.
4. Discuss with the class which suggestions you plan to use and why.

Activity B: Compose Instructions Steps for Managing Time

If you have already read the "Writing Instructions" chapter of this textbook, you know that reader-centered instructions steps follow certain guidelines for construction. If you are unfamiliar with the chapter or need a refresher, read the chapter subsection entitled "Writing the Body Section." Afterwards, work with a partner to identify how the steps in Activity A above reflect the subsection guidelines.

Now work with your partner to write a concise set of instructions steps for managing time. Be prepared to share your steps with the class during a brief informal presentation. In addition, listen to your classmates as they share their steps. Can you add anything to your document based on what they say? Once completed, your document will provide a quick reference guide for managing time as you proceed through your studies.

Activity C: Consider the Importance of a Weekly Schedule

Weekly schedules can be a must for effective time management in college. To illustrate the reality of this point, complete an activity adapted from Algonquin College (n.d., as cited in The Learning Portal, College Libraries Ontario, 2020). Begin by reading the following list. Pay close attention to all of Maria's interactions throughout her school day.

1. On Tuesday morning, Maria went to her usual class at 11 a.m. On her bus ride to school, she ran into Lana and they made plans to meet for breakfast at 8 a.m. on Monday morning.
2. Maria's instructor told the class that their final assignment was due on Thursday at 5 p.m. instead of Friday at 8 a.m.
3. As they were leaving class, Maria's classmate Adam asked her if she wanted to go to the gym on Wednesday afternoon. She agreed to meet him at 2 p.m.
4. After class, Maria had a group meeting with some of her classmates. They met at 1:30 p.m. to discuss their presentation. They would be presenting in front of their class on Friday afternoon at 3 p.m.
5. On her bus ride home, Maria got a call from her dentist's office reminding her of an appointment Monday at 8 a.m.

Now we will see how much of Maria's schedule you can remember.

Question 1: What time is Maria meeting Adam?

A. 11 a.m.
B. 2 p.m.
C. 1 p.m.
D. 3 p.m.

Question 2: What day and time was Maria's final paper moved to?

A. Tuesday, 5 p.m.
B. Friday, 8 a.m.
C. Thursday, 8 a.m.
D. Thursday, 5 p.m.

Question 3: What day is Maria having breakfast with Lana?

A. Friday
B. Thursday
C. Monday
D. Wednesday

Question 4: What does Maria have to do on Friday afternoon?

A. Meet her group
B. Meet Adam
C. Go to the dentist
D. Present in front of the class

Question 5: What time is Maria meeting her group?

A. 1 p.m.
B. 2 p.m.
C. 1:30 p.m.
D. 2:30 p.m.

Question 6: When is Maria's dentist appointment?

A. Today at 1:30 p.m.
B. Friday at 8 a.m.
C. Monday at 1:30 p.m.
D. Monday at 8 a.m.

Question 7: What time was Maria's class?

A. 11 a.m.
B. 2:30 p.m.
C. 1:30 p.m.
D. 5 p.m.

Question 8: What was the conflict in Maria's schedule?

A. The gym is the same time as her presentation
B. Her dentist appointment is at the same time as breakfast
C. Breakfast is at the same time her assignment is due
D. The gym is at the same time as her group meeting

Did you have trouble remembering everything Maria had to do during the week? Did you notice that she had scheduled two things for the same time?

A weekly schedule can help you plan your time and remember what you have to do, as this activity has illustrated. Here is Maria's schedule.

Tuesday

- Class at 11 a.m.
- Group meeting at 1:30 p.m.

Wednesday

- Gym at 2 p.m.

Thursday

- Assignment due at 5 p.m.

Friday

- Group presentation at 1:30 p.m.

Saturday and Sunday

- Nothing scheduled

Monday

- Breakfast with Lana at 8 a.m.
- Dentist at 8 a.m.

Homework: Create Schedules

Create a weekly and semester-long timetable to help you effectively manage your time. You may use the following templates when creating your schedules. Customize them as needed by adding cells and adjusting their size in order to accommodate schedule items.

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Morning							
Afternoon							
Evening							

	Task	Deadline	Things to Remember
Week 1			
Week 2			
Week 3			
Week 4			
Week 5			
Week 6			
Week 7			
Week 8			
Week 9			
Week 10			
Week 11			
Week 12			
Week 13			
Week 14			
Week 15			
Week 16			
Week 17			

If you prefer to plan out your weekly schedule in even further detail, here is another template option you can use. Again, expand the cells as needed to fit your schedule items.

	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Sun.
6:00-7:00							
7:00-8:00							
8:00-9:00							
9:00-10:00							
10:00-11:00							
11:00-12:00							
12:00-1:00							
1:00-2:00							
2:00-3:00							
3:00-4:00							
4:00-5:00							
5:00-6:00							
6:00-7:00							
7:00-8:00							
8:00-9:00							
9:00-10:00							

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Understanding Assignment Expectations

Dawn Atkinson

Chapter Overview

To craft a well-written technical document, you must first understand expectations for the piece in terms of purpose, audience, genre, writing style, content, design, referencing style, and so forth. This same truth applies to an academic assignment: you will be able to proceed with your writing task in a more straightforward way if you dedicate some time to understanding what the assignment asks before you begin to plan and write it. This chapter aims to help you *deconstruct* writing assignment prompts—in other words, carefully consider them by looking closely at their component parts—and use specifications, feedback, and rubrics to meet assignment requirements. Using the definition provided by Carnegie Mellon University's Eberly Center for Teaching Excellence and Educational Innovation (2019, para. 1), a *rubric* specifies how levels of skillfulness on an assignment relate to grading criteria and, thus, to performance standards.

What does the assignment ask you to do?

College professors oftentimes provide students with directions or prompts that outline requirements for assignments. Read these instructions thoroughly when you first receive them so that you have time to clear up any uncertainties before the assignment is due. While reading, look for words that will help you focus on the task at hand and define its scope; many assignment instructions use key words or phrases, such as those presented in the following list, which is adapted from Learn Higher (2015, "Key Words in the Title"), to establish expectations.

Account for	Give reasons for.
Analyze	Break information into its essential parts, examine the relationship between the parts, and question the information.
Argue	Make the case for or against something by supplying claims, evidence, and reasons; try to persuade the reader to accept your point of view.
Balance	Look at two or more viewpoints or pieces of information while giving them equal attention; look at the positive and negative aspects of an issue.
Be critical	Identify and give reasons for positive and negative aspects by probing, questioning, identifying inaccuracies or shortcomings, and estimating value.
Clarify	Identify the components of an issue/topic/problem; make the meaning plain; remove misunderstandings.
Compare	Look for similarities and differences in things, and perhaps conclude which thing is preferable based on an evaluation.
Conclude	Arrive at a judgement by reasoning; what the results of an investigation indicate.
Contrast	Identify differences.

Criticize	Provide a judgement about theories, ideas, or viewpoints, and back this by discussing the evidence or reasoning involved.
Deduce	Conclude; infer.
Define	Supply a precise meaning; examine possible or commonly used definitions.
Demonstrate	Show clearly by providing evidence.
Describe	Provide a detailed, full account of the topic.
Determine	Find out about something; calculate something.
Develop a viewpoint	Decide what you think based on an argument or evidence.
Discuss	Investigate or examine by argument; debate; give reasons for and against; examine the implications of a topic.
Elucidate	Explain and make clear.
Estimate	Calculate; judge; predict.
Evaluate	Use criteria to appraise the worth of something; assess and explain.
Examine	Look at carefully; consider carefully.
Explain	Make plain and clear; give reasons for.
Give evidence	Provide evidence from your own work or that of others to justify what you say.
Identify	Point out and describe.
Identify trends	Identify patterns/changes/movements in certain directions (e.g., over time or across topics/subjects).
Illustrate	Explain, clarify, or make clear by using concrete examples.
Interpret	Explain the meaning of something in clear and explicit terms, and make a judgement about it.
Justify	Show adequate grounds for decisions, a particular view, or conclusions, and answer main objections likely to be made.
Outline	Provide a short description of the main points; list the main features or general principles; emphasize the structure while omitting minor details.
Review	Examine a subject carefully.
State	Present in a brief, clear form.
Summarize	Provide a concise account of the main points of something while removing details.
Synthesize	Bring elements or sources together to create a complex, new whole; draw together or integrate issues.
Trace	Follow the development of a topic from its origin.

The words and phrases listed indicate the purpose for an assignment and communicate what it should contain (its content). Use the list to clarify your task for the assignment; however, if you are still not sure what the assignment asks you to do after identifying its key words and phrases and defining their meanings, arrange an appointment with your instructor to discuss your questions. Think of your instructor as a vital resource who can help to clarify your uncertainties and support your academic success.

What are the assignment specifications?

In addition to looking for key words and phrases in your assignment directions, also pay attention to other specifics that communicate expectations. The following list, adapted from Learn Higher (2019, "Be Practical"), identifies such specifics.

- When is the assignment due?
- Do you need to submit a draft before you submit the final copy for grading? If so, when is the draft due?
- Are you required to submit a paper copy of the assignment, an electronic copy, or both?
- What is the word limit?
- Are you required to use sources? If so, what kind and how many?
- What referencing style are you required to use?
- Who is the audience for the assignment?
- What design requirements do you need to follow?
- Does the assignment specify that you should use a certain document type (a genre)?

Although the directions for your assignment may not provide specific directions about writing style, you can likely determine the level of formality expected in the document by identifying its genre. For example, essays, letters, and reports tend to use formal language to communicate confidently and respectfully with readers, whereas emails and social media posts may use less formal language since they offer quick modes of interaction.

What does past assignment feedback indicate about the instructor's priorities?

If you have received feedback on past papers, look through the comments carefully to determine what the instructor considers important in terms of assignment preparation and grading. You may notice similar comments on multiple assignments, and these themes can point to things you have done well—and should thus aim to demonstrate in future assignments—and common areas for improvement. While reviewing the feedback, make a note of these themes so you can consult your notes when preparing upcoming assignments.

To avoid feeling overwhelmed by feedback, you might also prioritize the themes you intend to address in your next writing assignment by using a template, such as that provided in Figure 1, when making notes. If you have questions about past feedback comments when making notes, seek help before preparing your upcoming assignment.

What positive aspects of your past assignments do you want to demonstrate in your next assignment?

Punctuation (area for improvement): Which three punctuation issues do you intend to address when writing your next assignment? Record your responses below. In addition, locate pages in your textbook that will help you address these issues, and record the pages below.

Issue 1:

Issue 2:

Issue 3:

Sentence construction (area for improvement): Which three sentence construction issues do you intend to address when writing your next assignment? Record your responses below. In addition, locate pages in your textbook that will help you address these issues, and record the pages below.

Issue 1:

Issue 2:

Issue 3:

Citations and references (area for improvement): Which three citation and referencing issues do you intend to address when writing your next assignment? Record your responses below. In addition, locate pages in your textbook that will help you address these issues, and record the pages below.

Issue 1:

Issue 2:

Issue 3:

Figure 1. Template for prioritizing feedback comments on past assignments

Most college writing instructors spend considerable time providing feedback on assignments and expect that students will use the feedback to improve future work. Show your instructor that you respect his or her effort, are invested in your course, and are taking responsibility for your own academic success by using past feedback to improve future assignment outcomes.

What assessment criteria apply to the assignment?

If your instructor uses a rubric to identify the grading criteria for an assignment and makes the rubric available to students, this resource can also help you understand assignment expectations. Although rubrics vary in format and content, in general they outline details about what an instructor is looking for in an assignment; thus, you can use a rubric as a checklist to ensure you have addressed assignment requirements.

Table 1 presents a sample rubric for a writing assignment. Notice that performance descriptions and ratings are identified in the horizontal cells of the table and grading criteria are listed in the vertical cells on the left side of the table.

Table 1. A sample writing assignment rubric

Performance ratings

Writing Assignment Rubric

	Excellent 4	Above average 3	Average 2	Needs work 1	Unacceptable 0
Content: 30% • Accurate • Comprehensive • Relevant • Supported claims	Document is accurate and comprehensive. Document contains relevant information. Claims are supported with effective evidence, and research is from reliable sources. Both in-text citations and end references are used as needed. A standardized system of referencing (as assigned by the instructor) has been used correctly and consistently throughout the document.	Document lapses noticeably in one area of accuracy, comprehensiveness, relevance, or supported claims.	Document lapses noticeably in two areas of accuracy, comprehensiveness, relevance, or supported claims.	Document lapses noticeably in three areas of accuracy, comprehensiveness, relevance, or supported claims.	Document lapses noticeably in all areas of accuracy, comprehensiveness, relevance, and supported claims.
Writing: 30% • Efficiently and appropriately worded • Readable • Understandable • Contains no distracting composition errors	Document is efficiently and appropriately worded; it is easy to read and understand. Document contains few to no distracting composition errors (grammar, mechanics, capitalization, punctuation, style, usage, or spelling).	Document lapses noticeably in one of the following areas: efficiently worded, readable, understandable, contains no distracting composition errors (grammar, mechanics, capitalization, punctuation, style, usage, or spelling).	Document lapses noticeably in two of the following areas: efficiently worded, readable, understandable, contains no distracting composition errors (grammar, mechanics, capitalization, punctuation, style, usage, or spelling).	Document lapses noticeably in three of the following areas: efficiently worded, readable, understandable, contains no distracting composition errors (grammar, mechanics, capitalization, punctuation, style, usage, or spelling).	Document lapses noticeably in all of the following areas: efficiently worded, readable, understandable, and contains no distracting composition errors (grammar, mechanics, capitalization, punctuation, style, usage, and spelling).

Performance descriptions

Grading criteria

Although the rubrics you encounter may not look exactly like Table 1, the language used in a rubric can provide insight into what an instructor considers important in an assignment. In particular, pay attention to any grading criteria identified in the rubric, and consult these criteria when planning, editing, and revising your assignment so that your work aligns with the instructor's priorities.

What can you determine about assignment expectations by reading an assignment sheet?

Spend a few minutes reviewing the example assignment sheet that follows, or review an assignment sheet that your instructor has distributed. Use the bullet list under the heading "What are the assignment specifications?" to identify the specifics for the assignment.

Book Selection Email

Later this semester, you will be asked to produce a book review. To complete the assignment, you must select and read a non-fiction book about a science topic written for the general public. The current assignment requires you to communicate your book selection in an email message that follows standard workplace conventions.

Content Requirements

Address the following content points in your email message.

- Identify the book you intend to read and review.
- Tell the reader why you are interested in the book. For example, does it relate to your major? If so, how? Does it address an area that has not been widely discussed in other literature or in the news? Does it offer a new viewpoint on research that has already been widely publicized?
- Conclude by offering to supply additional information or answer the reader's questions.

You will need to conduct some initial research to address the above points.

Formatting Requirements

Follow these guidelines when composing your email message.

- Provide an informative subject line that indicates the purpose for the communication.
- Choose an appropriate greeting, and end with a complimentary closing.
- Create a readable message by using standard capitalization and punctuation, skipping lines between paragraphs, and avoiding fancy typefaces and awkward font shifts.
- Use APA style when citing and referencing outside sources in your message.

Audience

Your instructor will read your email message. Please use formal language and a respectful tone when communicating with a professional.

Grading Category

This assignment is worth 10 points and will figure into your daily work/participation grade.

Submission Specifications and Due Date

Send your email to your instructor by noon on October 1.

How will you respond to a case study about understanding assignment expectations?

We will now explore a case study that focuses on the importance of understanding assignment expectations. In pairs or small groups, examine the case and complete the following tasks:

1. Identify what the student argues in his email and the reasoning and evidence he uses to support his argument.
2. Discuss whether you agree with the student's argument, and supply explanations for your answers.
3. Identify possible solutions or strategies that would have prevented the problems discussed in the case study and the benefits that would have been derived from implementing the solutions.
4. Present your group's findings in a brief, informal presentation to the class.

Casey: The Promising Student Who Deflected Responsibility

Casey, a student with an impressive high school transcript, enrolled in an introduction to technical writing course his first semester in college. On the first day of class, the instructor discussed course specifics stated on the syllabus, and Casey noticed that she emphasized the following breakdown of how assignments, daily work/participation, and quiz grades would contribute to the students' overall grades.

Instructions Assignment	10%
Report Assignment	15%
Critical Review Assignment	15%
Researched Argument Assignment	20%
Performance Evaluation Assignment	15%
Daily Work/Participation	10%
Quizzes	15%

Casey also noticed that the instructor had an attendance policy on the syllabus, so he decided that he should attend class regularly to abide by this policy.

During the semester, the instructor distributed directions for completing the five major course assignments listed above; these sheets provided details about the purpose, audience, genre, writing style, content, design, and referencing format for the assignments. Casey dutifully read through each assignment sheet when he received it and then filed it in his notebook. Although he completed all his course assignments on time, he did not earn grades that he considered acceptable in comparison to the high marks he received on his papers in high school.

When Casey did not receive the final grade he thought he deserved in his introduction to technical writing class, he sent his instructor an email that included the following text.

> I am writing to you about why I deserve an *A* for my writing class. In my opinion, the requirements for an *A* should be attendance, on-time submission of assignments, and active participation in class activities.
>
> Attendance is the most important factor in obtaining an *A*. Being in class helps with understanding course content—students can ask for clarification during class when they have doubts about topics covered in class. I think I deserve an *A* because I attended 27 out of 28 total class meetings during the semester.
>
> On-time submission of assignments is another aspect that I feel I should be graded on. During the semester, I turned in all my assignments well before deadlines.
>
> The third aspect that I think should be used in determination of my grade is active participation for all in-class activities. My consistent attendance in class indicates that I actively participated in all activities during class time.
>
> After reviewing all the aspects I think are the prerequisites for an *A*, I feel that I deserve an *A* for my writing class.

After his instructor replied to the email by suggesting that Casey review the syllabus for further information about how his final grade was calculated, he complained bitterly to his friends about the instructor.

The university that Casey attended required students to complete end-of-course evaluations at the end of each semester. Upon receiving his final course grade in introduction to technical writing, he gave the instructor a poor review on the evaluation. In the review, he indicated that he oftentimes did not understand assignment requirements and was not sure who to turn to for help.

How will you demonstrate adherence to APA conventions?

To understand how to construct APA in-text citations and references in accordance with established conventions, review the following online modules.

- "APA Refresher: In-Text Citations 7th Edition" (Excelsior Online Writing Lab, 2020a) at https://owl.excelsior.edu/writing-refresher/apa-refresher/in-text-citations/
- "APA Refresher: References 7th Edition" (Excelsior Online Writing Lab, 2020b) at https://owl.excelsior.edu/writing-refresher/apa-refresher/references/

How will you relate the case study to points made in the rest of the chapter and in an essay?

Read an essay entitled "So You've Got a Writing Assignment. Now What?" (Hinton, 2010) at https://wac.colostate.edu/docs/books/writingspaces1/hinton--so-youve-got-a-writing-assignment.pdf; this essay expands upon a number of ideas raised in the current textbook chapter. Afterwards, write a response memo for homework. Address the items listed below in your memo, and cite and reference any outside sources of information that you use.

- Explain how the case study presented in this chapter relates to points made elsewhere in the chapter and in the essay in terms of understanding assignment expectations.
- Explain how this chapter, the case study, and the essay are relevant and useful to your own work in college. Do the texts offer new ways to approach writing assignments? Do they call into question unhelpful beliefs you hold about your own success in writing courses or in college? Do they offer solutions to problems you have encountered in college classes? How might you combine the points made in the texts with helpful practices you already demonstrate?

Consult the "Writing Print Correspondence" chapter of this textbook for guidance when writing and formatting your memo.

Remember to edit, revise, and proofread your document before submitting it to your instructor. The following multipage handout, produced by the Writing and Communication Centre, University of Waterloo (n.d.), may help with these efforts.

ACTIVE AND PASSIVE VOICE

Strong, precise verbs are fundamental to clear and engaging academic writing. However, there is a rhetorical choice to be made about whether you are going to highlight the subject that performs the action or the action itself. In **active voice**, the subject of the sentence **performs** the action. In **passive voice**, the subject of the sentence **receives** the action. Recognizing the differences between active and passive voice, including when each is generally used, is a part of ensuring that your writing meets disciplinary conventions and audience expectations.

Traditionally, writers in STEM fields have used passive voice because the performer of an action in a scientific document is usually less important than the action itself. In contrast, arts and humanities programs have stressed the importance of active voice. However, these guidelines are fluid, and STEM writers are increasingly using active voice in their writing. When in doubt, consult academic publications in your field and talk to your instructor – doing these things should give you a good sense of what's expected.

Active Voice Explained

Active voice emphasizes the **performer** of the action, and the performer holds the subject position in the sentence. Generally, you should choose active voice unless you have a specific reason to choose passive voice (see below for those instances).

e.g., Participants ❶ *completed* ❷ *the survey and returned it to the reader.*

❶ Subject (performer of the action)
❷ Verb (the action completed by the subject)

Passive Voice Explained

Passive voice emphasizes the **receiver** of the action, and the subject of the sentence receives the action. When using passive voice, the performer of the action may or may not be identified later in the sentence.

e.g., The survey was completed.

In the above sentence, the people who performed the action (those who completed the survey) are not mentioned.

e.g., The survey was completed ❶ *by participants* ❷ *and returned to the researcher.*

❶ Passive voice does not highlight the performers of the action (the participants); instead, the action of completing the survey is highlighted
❷ The prepositional phrase *by participants* identifies the performers of the action, but it does so only after the action itself has been identified

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One popular trick for detecting whether or not your sentence is in passive voice is to add the phrase *by zombies* after the **verb** in your sentence; if it makes grammatical sense, your sentence is passive.

Passive:
e.g., The trip was taken [by zombies].

Not passive:
e.g., Mandy taught the class [by zombies].

When to Choose Passive Voice

Deciding whether or not you should use passive voice depends on a number of factors, including disciplinary conventions, the preferences of your instructor or supervisor, and whether or not the performer of the action or the action itself is more important. Here are some general guidelines to help you decide when passive voice is appropriate:

- ☐ The performer is **unknown** or **irrelevant**

  e.g., The first edition of Freud's The Interpretation of Dreams *was published in 1900.*

- ☐ The performer is **less important** than the action

  e.g., The honey bees were kept in a humidified chamber at room temperature overnight.

- ☐ The **recipient** of the action is the **main topic**

  e.g., "We wish to suggest a structure for the salt of deoxyribose nucleic acid (D.N.A.) ❶*. A structure for D.N.A. has already* ***been proposed*** *by Pauling and Corey" (Watson and Crick, 1953)* ❷.

  ❶ Active voice (where the performers want to be highlighted)
  ❷ Passive voice (where the performers are identified, but are noted secondarily to the action itself)

Rhetorical choices often have an **ethical** dimension. For instance, passive voice may be used by people, organizations, or governments to obscure information or avoid taking direct responsibility. If someone says "the money was not invested soundly," the decision to not identify the performer of the action ("the accountant did not invest the money soundly") may be a deliberate one. For this reason, it is crucial that we question the choices we make in writing to ensure that our choices result in correct, clear, and appropriate messaging.

Converting Passive Voice to Active Voice

If you are proofreading in order to convert passive voice to active voice in your writing, it is helpful to remember that:

Active = Performer of Action + Action
Passive = Action itself (may or may not identify the performer afterwards)

Here are some sample revisions:

1. Passive voice
2. Active voice

e.g., It is argued that... 1
e.g., Smith argues that... 2

e.g., A number of results were shown... 1
e.g., These results show... 2

e.g., Heart disease is considered the leading cause of death in North America. 1
e.g., Research points to heart disease as the leading cause of death in North America. 2

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Working with Others

Stacey Corbitt

Chapter Overview

In her 2009 book *The Collaborative Habit: Life Lessons for Working Together,* iconic American dancer and choreographer, Twyla Tharp, wrote

> We've long forgotten how collaboration became a natural instinct. For most of us, in the dailiness of family life, collaboration is a learned habit. It's a welcome balance to the ego's incessant hunger for self-gratification. It's a recognition that there's more to life — more opportunity, more knowledge, more danger — than we can master alone. It's the building block of community. And because it's a balance to our self-absorption, it's a powerful tool for socialization and tolerance (as cited in Anderson, Castillo, and Patsch, 2020, p. 17).

Anderson, et. al., referenced Tharp's thoughts about working with others in their recent case study of a multi-disciplinary writing project in which the rich experience of collaboration is a major focus (2020, p. 17). This chapter aims to explore both the challenges and rewards of group work in college, paying specific attention to collaborative writing.

Why is collaboration employed in technical writing courses?

Students whose academic interests lie in science, technology, engineering, and mathematics (STEM) fields may be preparing to conduct research that necessarily relies on cooperative effort. Typically, college and workplace scenarios alike involve parties whose educational and professional backgrounds vary significantly, thus presenting difficulties when interdisciplinary communication is required. Exercises in communicating across those various backgrounds, education levels, and objectives can be practiced within the security and controlled environment of technical writing classrooms and laboratories. Writing faculty might support hands-on group work assignments because they offer valuable practice for developing communication skills for use in project planning, reporting, and conflict resolution.

Preparation is Key

The following discussion and activities, adapted from Rebecca Ingalls's essay *Writing "Eyeball to Eyeball": Building a Successful Collaboration* (2011), offer a realistic and thoughtful approach to setting up group writing projects for success. "Once we know why we see collaboration in certain ways …," Ingalls wrote, "we can begin to create the kind of common ground that collaboration asks for" (p. 125). Read the following excerpts from the "Getting Started" section of the essay and respond to the writing prompts presented: your instructor may provide additional direction for discussion with classmates.

Your Experiences Matter

Take some time to think through some of the collaborative work you've done in the past. Without worrying about mechanics or organization—spend fifteen minutes just writing about one or two experiences you've had. After you've spent some time writing, go back and re-read your freewrite, paying careful attention to the emotions you read in your words. Do you see inspiration? Anxiety? Pride? Frustration? Confidence? Confusion? What were the sources of these emotions in your experience? How do they shape the ways in which you view collaboration today? (Ingalls, p. 125)

Now, spend some time thinking about how those collaborations were set up. Specifically,

What was the purpose of the collaboration?

How was the group selected?

How did you make creative and strategic decisions?

How did you divide labor?

If there were tensions, how did you resolve them?

How did you maintain quality and integrity?

In what ways did you offer praise to one another?

How did you decide when the project was complete?

The purpose of the preceding exercise is to engage a writer's critical thinking skills to better understand past experience and how it informs attitudes toward collaborative writing projects (Ingalls, p. 126). Ask yourself questions like those that follow and be prepared to discuss your discoveries with your work group or classmates:

What role did I play in that collaboration?
More broadly, what role(s) do I tend to take in collaborative work? Why?

- How do I measure motivation and expectations of my group members?
- How do I measure fairness in dividing tasks?
- How do I measure success?
- How do I find the words to speak up when I want to challenge the group?

Record your preparation and/or discussion notes here:

Armed with an understanding of how past experience shapes your attitudes about and expectations for group work, consider Rebecca Ingalls's recommended next steps in pursuing a successful collaborative writing experience (excerpted from pp. 128-130).

Establishing a Group Contract
Once you've established your group, there is an important step to take before you dive into the work, and in many ways it acts as your first collaborative writing activity: the group contract. This contract serves as a kind of group constitution: it lays out the collective goals and ground rules that will adhere group members to a core ethos for productive, healthy, creative work. It also gives you a map of where to begin and how to proceed as you divide the labor of the project. In composing your contract, consider the following issues.

Understanding the project at hand

From the get-go, group members should have a clear, shared understanding of what is expected. Engage in a discussion in which you articulate to one another the goals of the project: what is the composition supposed to accomplish? What should it teach you as the authors? Discuss the parameters of the project: form, length, design, voice, research expectations, [and] creative possibilities.

Communication practices

Spend a few minutes discussing together what "good communication" looks like. This conversation may offer you a valuable opportunity to share some experiences and get to know one another better. Once you have outlined your standards for communication, establish ground rules for communication so that your group fosters sharp listening and makes space for a diversity of ideas and perspectives. Will you meet regularly in person, or will you rely on electronic means like email, chatting, a wiki, online collaborative software like Google Docs, or Facebook? If you use email, will you regularly include all group members on all emails to keep everyone in the loop? How will you vote on an idea? What if everyone agrees on a concept except one person? What if tensions arise? Will you deal with them one-on-one? In front of the whole group? Will you involve your teacher? When and why?

Meeting deadlines

Discuss your group members' various schedules, and establish a deadline for each component of the project. Decide together how you will ensure that group members adhere to deadlines, and how you will communicate with and support one another in achieving these deadlines.

Ethics

Discuss academic integrity and be sure that each group member commits to ethical research and the critical evaluation of sources. Each member should commit to checking over the final product to be sure that sources are appropriately documented. Rely on open, clear communication throughout the process of research and documentation so that you achieve accuracy and a shared understanding of how the text was composed, fact-checked, and edited.

Standards

Discuss together what "quality" and "success" mean to each of you: is it an A? Is it a project that takes risks? Is it consensus? Is it a collaborative process that is enjoyable? Is it the making of friends in a working group? How will you know when your product has reached your desired quality and is ready to be submitted?

As you can see, this contract is not to be taken lightly: time and effort spent on a reliable contract are likely to save time and energy later. The contract acts as the spine of a group that is sensitive to differences of experience and opinion, and that aims to contribute to the intellectual growth of each of its members. While the contract should be unified by the time you're done with it, allow space for group members to disagree about what is important—working with this disagreement will be good practice for you when it comes to composing the project itself. When it's completed, be sure that each group member receives a copy of the contract. You should also give a copy to your teacher so that he/she has access in the event that you want your teacher to be involved in conflict resolution. Keep in mind, too, that the best contracts are used to define your responsibilities and enhance communication, not to hold over one another—your contract is a thoughtfully composed articulation of your goals, not a policing tool.

Discuss Ingalls's recommendations with your class or the members of your work group. How might you consider employing some or all of her suggestions as you proceed into a collaborative writing assignment? What difficulties do you and your peers anticipate that Ms. Ingalls did not address? Work at being frank but respectful of each other as you discuss your expected challenges and list those concerns below. Be prepared to report on your group's discussion with the class as you prepare to complete the following activity.

Activity: Is learning to collaborate worth the discomfort?

Read the following text, which is adapted from *Collaborative Design and Creative Expression with Arduino Microcontrollers: Cultivating a Culture of Collaboration* (2017). Discuss the reading with your classmates as directed by your instructor. Be prepared to discuss the reading.

In this section, Kyle Keane and Andrew Ringler discuss the centrality of teamwork in the workshop. They also share two strategies fostering a culture of collaboration.

The Importance of Teamwork

We believe collaborating with other people is an enjoyable part of life. It's also critical. As technology becomes more complicated, it's growing increasingly less feasible to do any significant project alone. An important aspect of the Arduino workshop is helping participants learn comfortable ways to form teams and to function productively within them. In fact, in naming the workshop, "Collaborative Design with Arduino Microcontrollers," we intentionally put the word "collaborative" first in the title; participants use Arduinos to program microcontrollers, but engaging in teamwork is really the focus of the workshop experience.

Participants preparing for an improv exercise. (Courtesy of MIT OpenCourseWare.)

Setting Expectations

So how do we cultivate a culture of collaboration? On the first day of the workshop, we talk explicitly about how the point of being together in this shared space is for participants to find things that excite them, for them to share this excitement with others, and to feel vulnerable. In other words, we're here for social learning and social reinforcement. We tell students, "This workshop is voluntary. You can choose to be here or not, and you can leave at any point. So, if you stay here, stay here for a purpose. Stay here to interact with other people." Having this conversations helps us establish the expectation that collaboration will be a norm in the workshop.

Modeling Vulnerability

Modeling social vulnerability also helps us foster a collaborative learning environment. And this can feel really embarrassing! After all, modeling vulnerability in front of a classroom of undergraduates and graduate students is not something we typically do when we're deriving at a blackboard. But we should!

So we make a point to do it in the workshop. Recently, participants were giving presentations in the workshop. I (Kyle) stood up in the front of the classroom and role-played with the participants. At the beginning of my mock-presentation, I said, "I'm sharing my work with you. What is your response going to be? I need you to ask questions that are supportive, that show that you're interested."

I also spoke about the emotions and their physical counterparts, like sweaty palms, that I was experiencing. I encouraged them to share their work with others despite feeling vulnerable: "You're going to feel nervous. You only had two weeks to work on your projects and you didn't come to this workshop with professional skills; this is not a refined presentation. Don't be embarrassed. Just feel those feelings and share your work."

Modeling vulnerability is not a very common post-secondary teaching strategy, but I think it's an important thing to do when building team dynamics, because, let's face it, opening yourself up to critique is terrifying. And there's no point at which it stops being terrifying. So, as instructors, we try to face our own fears about doing it. We stand in the front of the classroom and talk about how it feels to be vulnerable. We're weirdly explicit about it, but we find it extremely effective.

Drawing on Improvisational Comedy

I (Andrew) tend to draw heavily on my experience with improvisational comedy, or improv, to lay the foundation for the social interactions that make teamwork possible and enjoyable. One thing that's really interesting about improv is that there's no script, so the only focus is you and the other person on stage. Together, you have an impromptu conversation, responding to each other, without having any idea what your partner will bring next to the conversation. It's about working in relationship with one another. I use improv warm up exercises (games performers play to get ready for a show) to help participants explore how verbal and nonverbal communication impact their collaborative relationships in the workshop.

> I use improv warm up exercises (games performers play to get ready for a show) to help participants explore how verbal and nonverbal communication impact their collaborative relationships in the workshop.
>
> — ANDREW RINGLER

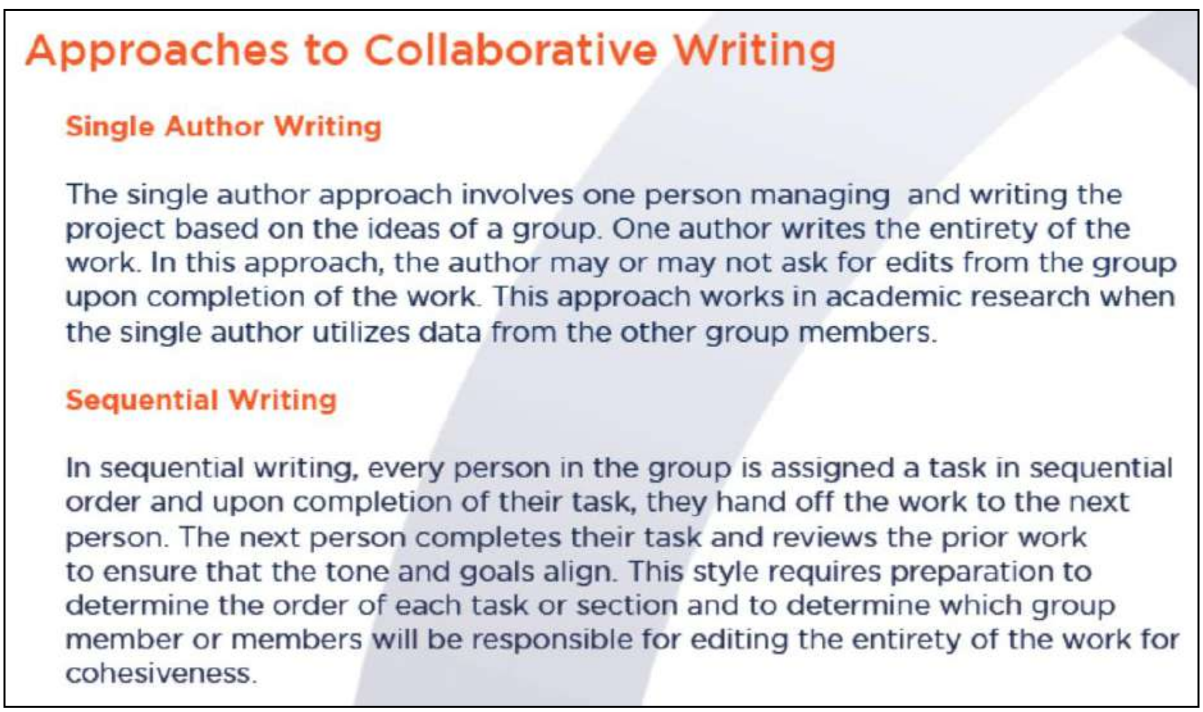
One of the improv exercises I do is called Red Ball. Participants pass an imaginary red ball, and, over time, the game gets complicated, because we introduce more imaginary balls that have similar sounding names, like "yellow ball," "bouncy ball," and maybe "bread bowl" or "Red Bull." There's an action associated with every ball name, such that when participants toss a "Red Bull," they have to act out opening a can of soda. We quickly introduce balls as others are being passed around, and it creates chaos.

At the end of the exercise, I ask, "Who has the red ball? Who has the yellow ball? Who has the Red Bull?" Sometimes two or more people think they have particular balls. Or a ball goes missing! This leads to conversations about the importance of agreement in communication. Participants have to think about who they passed a ball to, and if that person agreed to receive it. In other words, did that person even know someone was passing them a particular ball? We also talk about what happens when there's no one to receive a ball, because everyone's looking in different directions. In other words, the exercise allows us to have conversations about the communication issues participants will encounter in their collaborative design process. It's also a fun way to get participants comfortable making mistakes—which reinforces the idea that being vulnerable in this setting is not only okay, but the norm.

Think about your instructors, past and present. Based on your understanding of Kyle Keane's discussion of his approach to *modeling vulnerability,* can you recall an instructor you think has attempted to relate to you and other students by allowing their own insecurities to be seen? Describe that experience, including the way(s) it impacted you.

Getting the Work Done: Approaches

Whether group writing projects involve teams of two or ten partners from the same academic background or different ones, setting and following a deliberate plan is crucial to accomplishing the goals of those projects. Part of that deliberate plan might be developing the collaboration contract as discussed in the previous section. Beyond making a commitment to collaborate mindfully throughout the project, the work group must begin and complete the document(s) in order to claim success. While as a student you may be writing in a collaboration with defined parameters and other requirements, consider the "Approaches to Collaborative Writing" as presented by Kait McNamee of the Colorado School of Mines Writing Center (2019).



Approaches continued

Reciprocal Writing

This method of collaborative involves concurrent work efforts from all group members, meaning the entire group works on writing simultaneously. This method of writing involves group members editing one another's work while the work is still in progress. This approach is ideal for time constraints, but requires close attention to detail and agreed upon work conditions.

Parallel Writing

Parallel writing divides the project to have each individual work independently on sections, and then the work is compiled at the end. This method saves more time than methods such as sequential writing, but this method also requires editing to ensure cohesion after compilation. Final edits should always be accounted for when planning to use this approach; sometimes, one member of the group is not assigned writing and is only assigned the final edits.

Skill-based Division Writing

This approach is similar to parallel writing, but the tasks are divided by skill set. The responsibilities of the work may be divided based on skills and may utilize other approaches such as sequential or parallel writing. This approach is ideal if certain members have specialized skills, or when research and writing tasks can be divided by specialty.

Working with a partner or your assigned work group, discuss the various approaches listed. Which of these styles of collaborative writing have you and your partners experienced? How did those approaches work? Discuss which approach(es) would not be appropriate for your current writing assignment(s) and why. Be prepared to explain your responses in class.

Getting the Work Done: Project Management

The contract is ratified, the topic is chosen, the approach is determined: it's time to get results. Managing a collaborative writing project is a process that may be largely prescribed by the group work agreement in that decisions have already been made about a variety of matters. For example, the group members' leadership roles, the milestones and meeting schedules may all be defined in the group contract: the *project management*, then, according to Rebecca Ingalls (2011, pp. 132-133), begins with creating a plan.

> Together, divide the project into logical stages of development, taking into consideration what the composition will need in terms of its research, analysis, organizational sections, graphics, fact-checking, editing, and drafting. Also consider the responsibilities necessary for each of these stages.
>
> Next, divide the labor mindfully and fairly by discussing who will take on each responsibility. Think back on your experience and tendencies with collaboration. Is there an opportunity to do more listening, leading, negotiating, or questioning than you have in the past? Are there unique talents that individuals can bring to the project's various elements? Is one of you interested in design or illustration, for instance? Is another interested in multimedia approaches to presentation? You may elect a "divide and conquer" approach, but consider, too, that some sections of the project may require a sub-set of group members, and that other sections will need everyone's input (like research, editing, checking for documentation accuracy, decisions on design). In combining your individual skills with common goals, you're likely to find that the work you're doing is much greater than the sum of its parts. While individual group members' specific skills will be spotlighted in their own ways, this plan for the management of the project should also reveal that every stage of the process gets input from each member.

Activity: What if we have trouble?

1. Working with your team in class or as directed by your instructor, discuss conflicts the group members have experienced in past collaboration experiences. As you discuss, develop a list of "What If" questions that represent issues that might occur within your own team on the current project.

2. As you review and discuss the various "What Ifs" you have identified, return to your collaboration contract. What is the conflict resolution protocol you agreed upon? If there is no clear or adequate method for addressing unexpected disagreements or work stoppages, how might the team navigate those issues to keep progress on schedule?

Check the Vital Signs and Make Adjustments

Along with the "What If?" questions, successful teams recognize the dynamic nature of projects and group work, and collaborators make efforts to check in with each other and their schedule.

Review the following excerpt from Rebecca Ingalls's *Writing "Eyeball to Eyeball"* (2011, p. 135) and complete the activity that follows it.

> While you've worked hard to compose your group contract, it can be difficult to keep the elements of the contract in the forefront of your mind when you and your group members immerse yourselves in the project. Instead of moving the contract to the back burner, be sure to return to it once or twice throughout the project. In reflecting on collaborative work, one student in my class remarked, "People's roles in the project, responsibilities, work done, that can all be adjusted, but when it is time to submit it you have no room to improvise." The "adjustments" that this student refers to can happen when you and your group touch base with the goals you set from the beginning. You might also find that it's useful to meet briefly as a group in a more informal setting, like a coffee shop, so that you can take a refreshing look at the status of the project so far. Specifically, you might examine the following aspects of your collaboration:
>
> - Revisit your goals. Is your composition heading in the right direction?
> - Rate the overall effectiveness of communication. Call attention to any points of conflict and how you managed them.
> - Discuss the workload of tasks completed thus far. Has it been fair?
> - Measure the quality of the work you think the group is doing thus far.
> - Remind yourselves of past and future deadlines. Do they need to be revised?
> - Raise any individual concerns you may have.
>
> If this extra step seems like more work, consider the possibility that as you push forward with the project, your goals may change and you may need to revise your contract. This step acts as a process of checks and balances that helps you to confirm your larger goal of creating a healthy, productive, enjoyable collaboration.

Activity: Create a Living Project Schedule

Using the assignment specifications provided by your instructor, draft a preliminary work schedule for your collaborative writing project. The worksheet provided on the next page is a simple representation of a weekly work schedule with identified milestones; however, your team may want to use a different format for scheduling tasks. Some collaborative writing teams prefer, for example, to build their schedule using a Gantt charting form. A Gantt chart provides a detailed visual representation of the relationships between and among tasks, making interdependent or subordinate processes easier to identify. Whatever format you and your team members choose, remember the purpose is to create a visual representation of your project that is accessible and easy to review, share, and revise as needed.

Project Schedule for [name of project]______________________________________ **Due date:**______________________________

Names of team members:

____

Tasks	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Final week
Research plan	Ayne, Tomas begin; progress report Friday	Ayne, Tomas set meeting for team review					
Write background	Joy, David: research and rough draft	Joy, David: email draft for team revisions Friday					
Draft methods section			All team: work day Tuesday at Library conf. rm.	Tuesday: last day for interview data collection			
Revise and add citations							
Task							
Task							

List the tasks identified by the group in this column. They can be listed in any order you wish, since the weekly columns are used to mark beginning, milestones, and end of each task.

Use the weekly columns to identify team members responsible for the tasks; begin dates; milestone goals; and expected dates of completion. Meetings can be scheduled and noted in this table, and ideally all team members will update a common file in a shared folder.

Review and Reflection

As discussed in detail in the chapter of this textbook entitled *Reflecting on Performance*, much can be learned from thoughtful consideration of the processes followed in completing a task. Just as preparation is a key to launching a collaborative writing project, completing a review and assessment of the process and the outcomes helps to ensure your experience benefits your efforts in the next collaboration. Rebecca Ingalls offers some "guiding questions" in her essay (p. 137) for the reflection process.

- Was your project a success? If so, why? If not, why?
- What were some of the most poignant lessons you learned about yourself?
- What surprised you about this collaboration?
- What might you have done differently?
- In what ways did this collaboration change or maintain your perceptions of collaborative work?
- How would you instruct someone else in the process of collaboration?

Once you've done your own reflecting, take your observations back to your group, and discuss together what you've concluded about the process. Not only does this final step bring some healthy closure to the project, but it also opens up opportunities for resolution of lingering conflict, mutual recognition of your accomplishments, and, for those of you who've got an especially good thing going with your work, a conversation about possibly taking your project beyond the classroom.

Chapter Conclusion

Collaborative writing benefits everyone involved every time it is used. It offers writers great opportunities to learn about strengths and develop interpersonal communication skills while providing rich opportunities to give and receive feedback from peers. Group work exposes all team members to new ideas and innovative approaches to all aspects of work from planning to project completion and reflection. Collaboration on documents has a built-in benefit of many hours of critical reading and thoughtful writing and editing. Finally, writers benefit from the processes of learning and participating in negotiations with team members by taking responsibility for shortcomings as well as successes realized by the writing team.

Homework

1. Work as a group to write a memo to your instructor detailing your group's work plan for managing and completing your collaborative writing project, including a specific method for resolving conflicts that arise within the group. Provide helpful illustration in the form of the

graphical representation of your project schedule, either in a table format as provided in this chapter, a Gantt chart, or another graphic developed by your team.

2. Following your group's presentation or other submission of your collaborative writing project, write a business letter to your instructor detailing a post-process reflection on your group's experience and performance. Use the guiding questions provided above to develop the reflection report.

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Using Resources Effectively

Dawn Atkinson

Chapter Overview

This chapter aims to help you understand what study support resources are available to college students and how to use them effectively. Although colleges offer a variety of academic support resources for students, this chapter will focus specifically on meetings with instructors, writing tutors, and librarians since many students have access to these offerings. It will also discuss reflection as a personal learning tool you can use to enhance your university experience.

Adjusting to the Challenges of College Life

College life can be challenging for a number of reasons. You may be learning how to manage demands upon your time; how to budget for expenses; how to balance school, work, and home responsibilities; how to study in a another language; how to navigate the financial aid process; how to complete coursework when you have a disability or learning difficulty; or how to readjust to civilian life after military service. Although these challenges can be substantial, they do not have to be insurmountable—indeed, colleges want to see students succeed and, consequently, offer a number of resources that can help in this regard.

Although colleges provide vital support resources, many faculty and staff believe that students are responsible for accessing them because college also provides an opportunity to demonstrate personal accountability. Ultimately, you must take active steps in college to help ensure your own success, which means that you may have to actively seek out available support services rather than expect support personnel to come to you. To fully benefit from support resources, aim to use them effectively by taking into account the tips provided in this chapter.

Meeting with an Instructor

College instructors reserve space in their weekly schedules for *office hours*, or open periods of time available for meeting or communicating with students. Although the length of office hours may vary by instructor, course, and institution, instructors generally offer one office hour per week for each course they teach. Since the instructors dedicate these time periods solely to students, office hours may be thought of as a vital study support mechanism that, if used effectively, can help students meet their academic goals.

To fully benefit from an instructor's office hours, it is best to prepare in advance before a meeting. You must first find out when and where an instructor's office hours are scheduled. Instructors typically post these times on their syllabuses, their office doors, or both, and some also announce the hours in class. Be sure to ask an instructor if you are not sure when he or she has office hours. In terms of location, oftentimes this will be an instructor's office or another campus space; however, if you are taking an online course, the instructor may arrange to communicate with you via email, phone, a learning management system, or through an online conferencing application such as Skype or Zoom. Regardless of office hour logistics, the following tips should help you prepare for a meeting.

- Think about your goal(s) for the meeting. In other words, what do you want to achieve from the meeting?
- Write up a list of questions or points to discuss with your instructor while keeping your goal(s) in mind. Do not plan to simply ask an instructor how you can achieve a high grade because many factors can impact a student's grade in a course; instead, write specific course- or assignment-related questions or points on your list.
- Prioritize the items on your list in order of importance in case the instructor has limited time during the meeting.
- Gather any materials you might need for the meeting, such as paper for making notes, a pen or pencil, your list of questions, and your textbook(s). If you plan to ask the instructor questions about a homework or writing assignment, gather that material as well.

Sometimes instructors will advise students to bring specific things with them to office hour meetings. In these cases, be sure to bring what the instructor requests. Figure 1 presents an example document that an instructor might give a student to help structure an office hour meeting so that it is maximally productive.

Directions: Review the feedback on your last written assignment prior to our meeting. Identify three feedback points that you wish to discuss, and provide ideas for how you might address them in future assignments.

1.

2.

3.

Figure 1. An example task that an instructor might ask a student to complete for a meeting

In addition to preparing materials prior to a meeting with an instructor, you should also plan to take notes during the meeting to record important points for future reference.

Along with office hour meetings, some writing instructors also schedule individual conferences with students to discuss plans for or drafts of papers. If your instructor does this, make full use of the conference as a learning opportunity by preparing for it in advance. Bear in mind that a conference presents a chance to interact with an instructor on an individual basis: if you have been hesitant to share your views or questions in class, a conference allows you time to do so away from your peers.

Some instructors provide structured guidance to help students prepare for conferences. Figure 2 provides an example of a conference preparation form that an instructor might give a student in advance of conference. The instructor would likely ask the student to complete the form and bring it to the conference, again to ensure the meeting is maximally productive.

Conference Preparation Form

1. What is your working thesis statement (one or two sentences that identify your topic + your position on the topic)?

2. What three sources will you potentially use in your assignment? Record APA references for the sources below.

3. How did you assess the credibility of your chosen sources?

4. How will you use the sources in your assignment?

5. Read the feedback on your previous assignments. Based on this feedback, what three action points would you like to focus on in your next assignment?

6. What, specifically, do you intend to do to address the action points listed in number five?

7. Do you have any questions for the instructor? If so, record these below.

Figure 2. A sample conference preparation form

If your instructor does not provide a conference preparation form, you can still prepare before the conference by completing the bullet-point steps listed previously in this chapter.

As a final note, by preparing for a meeting with an instructor, you can demonstrate that you are engaged in a course, that you wish to get as much as you can out of the course, and that you respect your instructor's time.

Meeting with a Writing Tutor

If your campus offers face-to-face or online tutoring appointments, think of these as opportunities to refine your coursework outside the classroom. Some campuses arrange group tutoring sessions, while others offer one-on-one meetings with tutors; regardless of the configuration, think of a tutoring session as a vital resource that, if used wisely, can pay valuable dividends in terms of your academic success.

Writing tutors can generally help students with different phases of the writing process, including planning, organizing, and revising papers. A tutor is unlikely to edit a paper since that responsibility falls on the student, but a tutor can offer suggestions that may help improve the paper. To fully benefit from a tutoring session, prepare for it in advance by taking the following steps.

- Make a note of the time and place for the tutoring session on your calendar or weekly planner.
- Consider what you want to achieve during the session and what questions will help you in this effort.
- Write down the questions or points you wish to discuss with the writing tutor. Do not plan on asking the tutor how you can achieve a high grade on your paper since different factors can affect a student's grade on an assignment. Instead, list specific questions that relate to the paper you are working on; if you have reviewed your feedback on previous assignments, you might have questions, for instance, about how to apply certain aspects of the feedback to your current paper.
- Prioritize the items on your list in order of importance so that you can address the most pressing ones first.
- Gather all the things you will need for the session: notepaper and something to write with, a copy of the assignment directions and grading specifications, a copy of your draft paper or assignment plan (if you are in the organizing stage of writing), and your textbook(s).

On the day of your tutoring appointment, be sure to check in on time with the tutor and have your preparation materials handy. When asking questions or raising discussion points, take notes on what the tutor says so you can refer to them later as needed, and if you need clarification on a certain point, do not be afraid to ask.

When working with a writing tutor, remember that constructive criticism can actually help strengthen your papers and that most professionals, regardless of the jobs they perform, receive feedback on their work from various *stakeholders* (people with an interest in what they do). In brief, constructive criticism may identify **what** needs to be changed in a paper, **why** it needs to be changed, and **how** it can be changed. Alternatively, constructive criticism can highlight **what** works well in a paper, **why** this is the case, and **how** the positive aspect affects the reader—a particularly important consideration in technical writing since it strives to be reader focused. Regardless of the feedback you receive during an appointment with a writing tutor, examine it carefully to determine how you might apply it to your current or future assignments. And if you need further explanation to understand a feedback item, ask the writing tutor so that your session is productive.

Meeting with a Librarian

In addition to the resources this chapter has discussed thus far, librarians can also support students' efforts to be successful in college. For instance, librarians can help students locate books and other materials for course projects; evaluate the trustworthiness of sources; cite and reference sources in adherence with style guidelines; identify what types of sources various materials are; and use *databases*, which are expansive, online collections of curated works that can be navigated via use of keywords.

When asking a librarian for assistance with a project, prepare in advance by using the following guidance to help ensure you gain the maximum benefit from the interaction.

- Prepare a list of specific questions or points for discussion with the librarian. If you wish to see how a library resource, such as a database, works, then plan to ask the librarian for a demonstration or a set of instructions.
- Arrange your questions or points in order of importance so that you can address the most critical ones first.
- Gather together any materials you will need when speaking with the librarian, such as a copy of your assignment or assignment plan, a copy of the assignment directions, and a pen and paper.
- Plan to take notes during your conversation with the librarian to record important points for future reference.

Although some librarians may only see students by appointment, others will be freely available to help students during library service hours. Check with your college library or its website to determine the protocol for your institution.

Reflecting on Your Experiences in College

As you use the study support resources mentioned in this chapter, or indeed anytime you engage in a learning opportunity in college, remember to reflect on the experience to gain long-lasting benefit from it. Reflection is a cyclic process whereby you

- Prepare for an experience by establishing goals and strategies.
- Engage in the experience while using the strategies.
- Discover the results of your efforts and think carefully about what they mean in terms of your aspirations.
- Use the results to devise goals and strategies for the next similar experience.

The reflection process can help to reveal productive and less-than-productive strategies and how these affect growth and advancement; it can also help you identify areas for further development and discover your own role in your college success. Figure 3, adapted from McLaughlin Library, University of Guelph (n.d.), illustrates the reflection process at work.

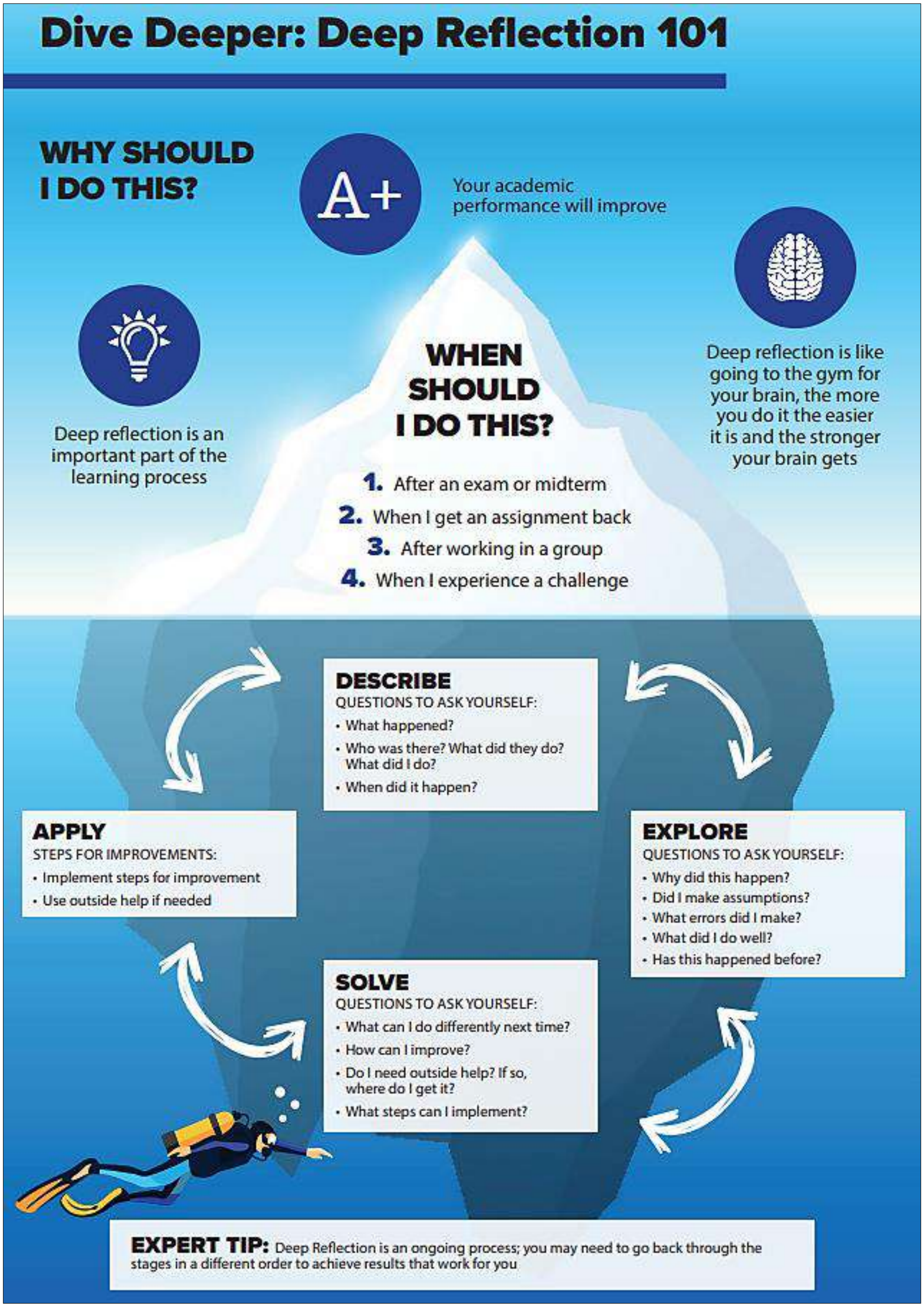

Figure 3. Use the reflection process to improve your college experience

As Figure 3 articulates, reflection is a continuing process, one that will serve you well throughout academia and beyond.

In addition to the benefits of reflection already mentioned, reflecting on college experiences can also lead to enhanced resilience: as you deconstruct the factors that led to a certain result and come to understand the relationship between your thoughts, actions, and successful and unsuccessful experiences, you may determine what it takes to persevere with your work. The following vignette, adapted from The Learning Portal, College Libraries Ontario (2020, "Strategies for Coping with Problems: Passive vs. Active"), demonstrates this point with a true-to-life example.

Miriam takes a midterm exam for a class and scores a failing grade. She studied hard, so she's surprised and disappointed she did so poorly. Blinking back tears, Miriam takes a few deep breaths while looking over her test.

With her academic and professional aspirations in mind, Miriam now has a crucial decision to make: she can (1) ignore the situation, (2) blame the instructor for the situation, or (3) reflect on the situation and take active steps to help effect a different result on the final exam. Miriam thinks to herself, *I've used the first two coping strategies in the past and only wound up frustrated and bitter. I better try something else.*

After class, she's still feeling pretty upset, so she goes for a run—she knows that always makes her feel better. Plus, it gives her a chance to contemplate what happened on the exam. When Miriam gets home, she emails her professor, asking him for a meeting to get more feedback on her midterm. This way, she can figure out what specific content she is misunderstanding and how she can improve.

In the end, Miriam decides to use reflection to determine a way forward and takes constructive action to improve future outcomes.

As the positive results of the reflection process trace their effects on our actions, resilience can follow as we learn productive mechanisms for advancing toward goals, even in the face of challenges.

Chapter Wrap-Up

Take active steps to help ensure your own academic success by using the resources and tools identified in this chapter to meet the challenges of college life.

Activity A: Delve Further into the Benefits of Office Hours

Listen to a podcast that aired on *National Public Radio* entitled "Uncovering a Huge Mystery of College: Office Hours" (Nadworny, 2019), which can be found at https://www.npr.org/2019/10/02/766568824/uncovering-a-huge-mystery-of-college-office-hours, and work in pairs or small groups to complete the following items.

1. What do you think of the ideas presented in the podcast? Which do you agree with, and why? Which do you disagree with, and why?
2. How might you use the ideas discussed in the podcast to your advantage in college?
2. Share your group's ideas with the class.

Activity B: Consider How to Address Situations that Arise in College

Consider the situations listed on the table, and work with a partner to decide what or who can provide the information needed to address them. Complete the items on the table while consulting course and institutional resources as necessary for answers; do not automatically assume that your instructor can provide help with all of the situations. After you have completed the items already listed, work together to brainstorm other situations to add to the list, and complete the table for those items. The situations might be ones you have already experienced. Be prepared to share your ideas with the class and to listen for useful items to add to your table. Once completed, your table will provide a quick reference guide as you proceed through your studies. This activity is adapted from Learn Higher (2019).

Situation	What/Who Can Provide the Information
I need to know where the library is	Campus map
I have problems formatting references	
I don't know how to complete an assignment	
I don't know when an assignment is due	
I need to know when and where class meets	
I need to know when the library is open	
I'm not sure when to use commas	
I don't know when the semester ends	
I don't know if an ATM is located on campus	
I need help planning a paper	
I would like to read a course description before enrolling in a class	

I'm not sure how my assignment is being graded	
I need to know when my instructor has office hours	
I found a source for my paper but am not sure how to determine whether it is credible	

Homework: Email Your Instructor about the Chapter and Campus Resources

Read an essay entitled "Why Visit Your Campus Writing Center?" (Rafoth, 2010) at https://wac.colostate.edu/books/writingspaces1/rafoth--why-visit-your-campus-writing-center.pdf; this essay discusses the value of meeting with a writing tutor. Afterwards, compose an email to your instructor in which you address the questions listed below. Use standard conventions for professional emails when completing this task, and cite and reference any outside sources of information that you use.

1. What did you find to be the most interesting, thought-provoking, or unusual idea(s) presented in the essay?
2. What campus resources will you use to help ensure your own success in your writing course(s)? Refer, as needed, to the essay, current chapter, and radio program mentioned in Activity A.

Consult the "Writing Electronic Correspondence" chapter of this textbook for guidance when composing and formatting your email.

Remember to edit, revise, and proofread your message before sending it. The following multipage handout, produced by the Writing and Communication Centre, University of Waterloo (n.d.), may be particularly useful when considering the correct placement of commas in your message.

MAKING SENSE OF COMMAS

A comma is a form of punctuation used to separate distinct elements in a sentence, including **listed items**, **dependent** and **independent clauses**, **transition words** and **phrases**, and **non-essential information**.

Commas in a List

Use commas to separate items in lists of **three or more items**.

e.g., I'm studying Italian, Computer Science, Statistics, and Functions.

Commas and Introductory Phrases

Commas are used after **short introductory phrases**. A comma indicates that the introductory information is over and the main part of the sentence is beginning. Introductory phrases may include context about **times** or **dates**. They may also be **transition words** or **phrases**.

e.g., In 1949, Newfoundland joined Confederation.
e.g., However, many citizens remained loyal to the idea of independence.

Aa

Use two commas for **transition words** used in the middle of sentence.

e.g., Most of Smith's conclusions, however, are valid.

Commas and Coordinating Conjunctions

Commas generally come before **coordinating conjunctions** that join independent clauses.

e.g., I was failing calculus, so my parents hired a tutor.
e.g., Students today must be better prepared than ever, for competition in the workplace is fierce.

Aa

The coordinating conjunctions can be remembered through the acronym F.A.N.B.O.Y.S.:
F (for) **A** (and) **N** (nor) **B** (but) **O** (or) **Y** (yet) **S** (so)

Commas and Parenthetical Expressions

A parenthetical expression adds **secondary** or **supplemental information** to a sentence. Placing commas around this information indicates that the information is **non-essential** from a grammatical standpoint and could be removed without interfering with the overall meaning or structural completeness of the sentence.

Aa

Commas used for parenthetical expressions can also be replaced by **dashes** or, occasionally, **parentheses**.

e.g., My PSYCH 345C textbook, which costs over $175, is difficult to understand.
e.g., Marjorie, Don's wife of thirty years, planned a surprise party for his 75th birthday.

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While the guidelines in this handout are designed to help you understand and use commas correctly, it is important to note that there will be exceptions to these rules for **stylistic** or **flow** purposes. For example, the following sentence is grammatically correct based on comma rules, but it has so many commas in a short space that the sentence may appear disjointed:

e.g., She should be here at 9, but, if not, we can start anyway.

The above sentence might be written to omit the second comma. Be careful, since some people may judge this as grammatically incorrect. However, it is a common construction when a parenthetical expression (*if not*) directly follows a coordinating conjunction (*but*):

e.g., She should be here at 9, but if not, we can start anyway.

Commas and Complex Sentences

Complex sentences are ones that contain **one independent clause** (complete sentence) and **one or more dependent clauses**. Whether or not you use a comma depends on the **order** in which the clauses are presented.

1. Dependent clause
2. Independent clause

Use a comma when a dependent clause is followed by an independent clause.

e.g., Because the course was so popular (1)*, the department decided to run extra sections in the fall* (2).

Do not use a comma when an independent clause is followed by a dependent clause.

e.g., The department decided to run extra sections of the course in the fall (2) *because it was so popular* (1).

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Reading Actively

Dawn Atkinson

Chapter Overview

This chapter asks you to think about the benefits of extensive reading, expectations for college-level work, and reading strategies that may help you process text effectively. It also brings into focus critical reading applications and stresses the vitality of critical reading to your academic efforts. *Critical reading*, as it is defined in this book, means to read a text closely to discover how it is constructed and what it says; how it relates to other texts, ideas, historical context, or research; how it establishes and supports viewpoints; and whether and how it communicates credibility.

Considering the Benefits of Extensive Reading

As a college student, you will likely need to complete a considerable amount of reading for your courses—reading that you must understand and think carefully about in order to discuss confidently in your writing assignments. The reality of this situation can work to your benefit since skilled writers also tend to be prolific readers (Kellogg, 2006, p. 397). Indeed, extensive reading can help you

- Build vocabulary.
- Develop knowledge about a variety of topics.
- Understand the functions and characteristics of different *genres* (types of writing).
- Develop effective and potentially new ways of formulating sentences and paragraphs.
- Understand audience needs and expectations.
- Grasp how and why writers reference sources.
- Gather information to support your viewpoints.

Consider these benefits of reading as you navigate this chapter, much of which is adapted from Horkoff (2015, pp. 1-14). The chapter focuses on reading and its connection to writing.

Considering the Nature of College-Level Work

To do well in college, it is important to stay focused on how your day-to-day actions help to determine your long-term success. Although you may not have defined your career goals or chosen a major or program of study yet, you probably have some overarching aims for your studies, as well as aspirations for your career. Doing solid, steady work over the days and weeks that comprise semesters will help you achieve those ends.

Also know that in college, academic expectations may be quite different from what you experienced in high school. Table 1, which is adapted from Horkoff (2015, p. 2), elaborates on some of these differences, particularly as they relate to reading and writing assignments.

Table 1. Some differences between high school and college

High School	University
Reading assignments may be moderately long.	Many reading assignments are lengthy.
Teachers may set aside some class time for reading and reviewing material in depth.	Students are expected to come to class with a basic understanding of reading material.
Teachers often provide study guides and other aids to help students prepare for exams.	Students are responsible for preparing for exams on their own.
Students’ final grades are determined by performance on a wide variety of assessments.	Students’ final grades may depend on just a few writing assignments, quizzes, or tests.
Assignments may focus heavily on personal and creative writing.	Outside of creative writing courses, many writing assignments focus on explaining, describing, informing, or arguing.
The structure and format of writing assignments does not generally change.	Students may be asked to use new forms of writing and follow the standards of particular professional fields.
Teachers often go out of their way to help students who perform poorly on quizzes, miss classes, or fail to submit writing assignments.	Although teachers want their students to succeed, they may not always realize when students are struggling, or they may expect students to seek help on their own.
Teachers will often give students multiple chances to make up missed work, turn in late work, or rewrite assignments.	Teachers expect students to proactively ensure their own success and rarely provide chances to make up missed work, submit late work, or rewrite assignments.

This chapter addresses a number of points outlined in Table 1 by focusing specifically on approaches to reading and how these link to expectations for college writing. Before we delve into reading strategies, discuss your answers to the following items with a partner.

- In what ways do you think college-level study will be rewarding for you as a learner?
- What aspects of college-level study do you expect to find most challenging?
- What changes will you have to make to ensure your success in college?
- Identify one long-term goal you would like to achieve by the time you finish college.

- Identify one semester goal that will help you achieve the long-term goal.

Managing Your Reading Time and Productivity

To accomplish your goals in a semester, you will need to set aside enough time for your college work, including reading. Rather than trying to cram all your reading into one sitting, possibly right before a quiz, exam, or paper deadline, aim to break it up into manageable chunks so that it is not overwhelming. Your method for dividing up a reading assignment will depend on the text you are reading. If it is dense and packed with unfamiliar terms and concepts, you may decide to read no more than five or 10 pages in one sitting so that you can understand, reflect on, and apply the information presented. With less complex texts, you will be able to read longer sections, possibly 20 to 40 pages at a time. And if you have a highly engaging reading assignment, such as a non-fiction book about science meant for the general public, you may be able to read even longer stretches in one go.

To ensure you are maximally productive with reading assignments, you will also need to define an optimal time and atmosphere for reading. Some students prefer to read before, after, or between classes, while others find that reading at night after all their other responsibilities are done works best. Think about when you feel most alert and undistracted, and schedule reading sessions then. Also think about what type of environment you read most effectively in: for example, some students opt for the quiet of their rooms or the library in order to concentrate on reading assignments, while others work best with sound or activity in the background, and thus prefer the atmosphere of cafés or coffee shops. Try different options and configurations to discover what suits you best.

Before you commence a reading session, have available all the things you will need to uninterruptedly engage with the text, such as a notepad, pens and pencils, highlighters, and sticky notes. College-level reading calls upon students to connect with texts, and doing so requires involvement in the reading process. So be prepared to use the stationery items listed to take notes, trace connections, and record questions about the reading. When working, bear in mind that highlighters can be useful tools for drawing attention to items if they are used sparingly; however, they will stop cuing your attention if overused. If you encounter unfamiliar terms while reading, try to guess their definitions from context or look them up in a reference source, such as a dictionary. Write down the meanings of the words in the margins of the text (but never in a library book) or in your notes so that you can refer to those definitions in future if the need arises. These means of engagement can make the reading process more meaningful and enjoyable because they force you to remain alert and record thoughts about a text that you may later draw upon as you prepare for quizzes, exams, or writing assignments.

Establishing a Purpose for Reading

Knowing what you want to get out of a reading assignment can also help you determine how to approach it and how much time to spend on it. Sometimes your purpose is simple: for example, you might need to understand reading material well enough to discuss it intelligently in class the next day. Oftentimes, however, your purpose will go beyond that. For instance, you might read to compare texts, to formulate a personal response to a text, or to gather information for future research. Here are some questions to consider when determining how to tackle a reading assignment.

- How does the instructor frame the assignment? Often instructors will tell students what they expect them to get out of a reading. In a healthcare course, for example, an instructor might ask students to read a textbook chapter and think about how they can apply its guidelines to the first stages of an onsite patient assessment.
- How does the assignment relate to other course readings or to concepts discussed in class? The instructor may articulate some of these connections; if not, you must take

responsibility for drawing connections on your own. Taking notes while reading can make this task more straightforward.

- How might I use this text again in the future? A reading assignment may help you develop ideas for a future research project, so think about what you can take from the reading that will stay with you.

Although college-level texts can be challenging, establishing a purpose for reading can help you manage the demands of the task.

Identifying the Main Points of a Text

In your courses, you will probably be reading a wide variety of materials, such as the following:

- Textbooks: These usually include chapter goals, checklists, summaries, glossaries, comprehension questions, and other study aids.
- Nonfiction books: These are less likely to include the study features found in textbooks; however, they are divided into chapters that each develop the text's central idea.
- Magazine and newspaper articles: These are typically written for a general audience.
- Essays: These may be intended for specific or more general audiences and are a common form of academic writing.
- Formal reports: These may be intended for specific or more general audiences and are a common form of technical writing.
- Scholarly journal articles: These are written for an audience of specialists in a given field.

Regardless of what type of text you read, your primary comprehension goal is to identify its main point, the most important idea the writer wants to communicate and often states early on. The main point provides a framework around which details of the text are organized—supporting points, illustrations, facts, and explanations that clarify and develop the main point—as well as a means for relating the text to concepts covered in class in or in other readings.

Identifying the main points of some texts is relatively easy. Textbooks, for instance, include the aforementioned features as well as headings and subheadings to help students recognize important concepts. Graphic elements, such as bold text, italics, text boxes, tables, and figures, act as visual cues to underscore central ideas and help readers understand complex information. When you are assigned textbook reading, be sure to use the comprehension aids provided to help you identify key takeaways.

Although nonfiction books may not be written specifically for an educational audience as textbooks are, they also include features that can help you identify main points. This type of book will oftentimes include an introduction that presents the author's core ideas and purpose for writing. Reading chapter titles, headings, and subheadings will also give you a broad sense of what is covered; reading the beginning and ending paragraphs of a chapter can likewise be beneficial since these paragraphs often summarize the main ideas presented.

To grasp the main points of magazine and newspaper articles, read the titles (called *headlines* in these genres), headings, and introductory paragraphs carefully. In magazine articles, these components, along with the closing paragraphs, present the central concepts. *Hard news articles*—those articles that relate recent or in-progress news that is of interest to many people—present the gist of the news story in the lead or lede (first) paragraph, while subsequent paragraphs present increasingly general details.

Identifying key points in an essay can be a somewhat straightforward process if you know how this genre is constructed. An essay is organized around a central theme, which is articulated as a *thesis statement* (the topic or purpose of the piece plus the writer's position on it). The thesis is typically presented at or near the end of an introduction, making it easy to locate. Topic sentences are another unifying feature of this genre since they communicate the main points of paragraphs and ultimately relate back to an essay's thesis. An essay's conclusion will generally restate the thesis and summarize the main points covered in the text, again reinforcing the essay's focus. Essay writers may also incorporate visual cues, such as bold headings, to help readers identify key ideas.

Although formal reports vary widely by content and focus, they oftentimes communicate the results of substantial research undertakings to various *stakeholder groups* (interested parties, in other words). These types of reports are divided into three major parts—front matter, body, and back matter—which themselves contain multiple main sections, as the following list (adapted from Schall, 2014) indicates. A formal report may include some or all of these sections.

Front Matter

- Transmittal letter or memo (separate page): supplies details about the accompanying report (what it is, who it is intended for, and key information provided in the document), offers to answer readers' questions, and provides the writer's contact information. A transmittal document is typically one page long.
- Title page (separate page): lists the report's title, the writer's name and organization, the distribution date, and the name of the client or organization receiving the report. The title should be specific to the document, explanatory of the report's content, and consist only of words that contribute directly to reader understanding.
- Abstract (separate page): provides a succinct and accurate summary of the report's contents. The abstract summarizes the research focus and rationale, identifies the

research method used, overviews the findings, indicates what they mean, and states the implications of the research, oftentimes in one paragraph.

- Table of contents (separate page): lists the report's headings and subheadings and the page numbers on which these sections begin.
- List of figures (separate page): accompanies a report that contains more than five figures. The figures are listed in the order in which they appear in the report by their titles and page numbers.
- List of tables (separate page): accompanies a report that contains more than five tables. The tables are listed in the order in which they appear in the report by their titles and page numbers.
- List of Abbreviations (separate page): defines abbreviations for readers. This type of list is included in a report that contains multiple abbreviations.

Body

- Executive summary (separate page): provides busy readers with a thorough overview of the report. An executive summary, which may be one or more pages long, can be read on its own to understand the report's contents.
- Introduction: provides context for readers, describes the report's purpose and scope (sometimes listing *research questions*, which are questions a research study seeks to answer, objectives, or hypotheses in the process), and indicates how the report is organized. An introduction can vary in length from a paragraph to several pages long depending on the length of a formal report.
- Literature review: establishes the history of the problem being investigated by summarizing what work has already been done, how, and why. In short, the literature review identifies the relationship between previous research and the current study. The literature review may be presented in the introduction or as its own separate section.
- Method: explains what was done during the research project, how, and why. It includes a description of the equipment and materials used in the study, as appropriate, to clearly outline research procedures.
- Results: presents the study's findings. This section is sometimes combined with the discussion section, enabling the writer to discuss findings and what they mean in unison.
- Discussion: explains what the results mean and makes connections between the present study and existing research discussed in the literature review. A writer is expected to be forthcoming in this section by addressing ambiguities in the data, confirming causal relationships, and explaining reasoning while also avoiding sweeping generalizations and unfounded statements.

- Conclusions: links the outcomes of the study to its research questions, objectives, or hypotheses; underscores the study's contributions; identifies the study's limitations; and makes recommendations, possibly for future research or courses of action based on the study's outcomes.
- References (separate page): provides full bibliographic details for the in-text citations listed in the report.

<u>Back Matter</u>

- Appendices: present supplementary material that is too long or detailed to be included in the body of the report. If a report contains one appendix, it is labelled *Appendix* (sans italics). When a report contains more than one appendix, the appendices are lettered in the order in which they are mentioned in the report and labelled with a descriptive tag (e.g., Appendix A: Writer's Résumé, Appendix B: List of Interview Questions). Each appendix contains one piece of information, such as a map, and is presented on its own separate page.
- Bibliography (separate page): lists in alphabetical order all sources that were consulted during the report's preparation and/or additional sources readers may find helpful.
- Glossary (separate page): lists in alphabetical order potentially unfamiliar report terms and their accompanying definitions.
- Index (separate page): lists prominent topics discussed in the report in alphabetical order and provides the page numbers where these items can be found.

As this list hints at, the organizational features of a formal report make identifying its main points a somewhat straightforward task. Indeed, report writers deliberately repeat these points in abstracts, executive summaries, introductions, and conclusions to underscore their significance and to make them easy for readers to identify. Formal reports also typically contain visual elements, such as headings and subheadings, bold type, and visuals, which signal central ideas.

At the far end of the reading difficulty spectrum are scholarly journal articles, which report on research studies and findings. Because these texts are aimed at specialized audiences who have knowledge of particular areas of study, the authors presume readers are already familiar with topics discussed; thus, the authors may employ a sophisticated writing style and leave *jargon*—specialized language or terminology used in a particular field of study or workplace environment—undefined. Although these texts can make for challenging reading, you can use organizational and graphic features to help comprehend main points. To elaborate, a journal article's introduction presents context for the study described, as well as the writer's thesis, purpose, hypothesis, or research questions, while the method section reveals how the investigator undertook the research. The results section presents the study's findings, and the discussion or conclusion section interprets these findings and indicates what they mean for future investigations in the area. Taken together, these sections constitute the components of IMRaD structure—the acronym stands for **I**ntroduction, **M**ethod, **R**esults, **a**nd **D**iscussion—an organizational approach commonly used in research reports. Figure 1, adapted from Excelsior Online Writing Lab (2020a), provides a summary of IMRaD structure as it is conventionally applied to an APA-style journal article. *APA* stands for American Psychological Association, a referencing and formatting style commonly used in technical and academic documents.

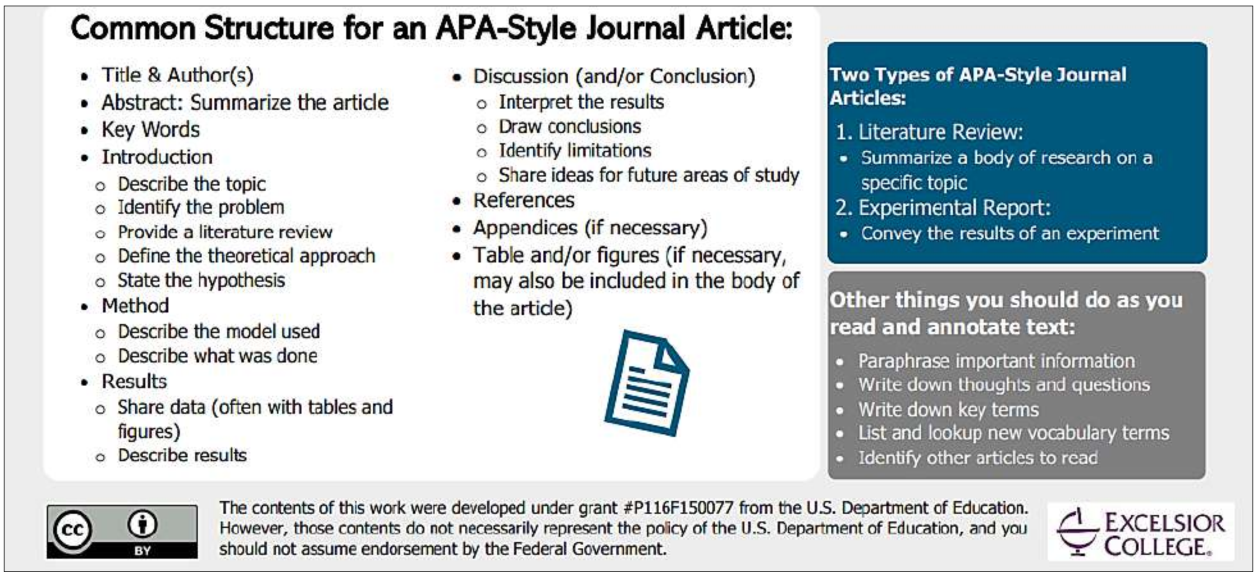

Figure 1. An outline of IMRaD structure as used in an APA-style journal article

Since IMRaD structure prescribes where to place certain pieces of information about a study, you can use knowledge of the structure to identify the main points of a journal article’s various sections. Furthermore, an article’s headings and subheadings can help you understand how the writer has organized support for the thesis, focused direction on the article’s purpose, or sought to address the research questions, while visuals explain key concepts covered in paragraphs. An academic journal article also begins with an *abstract*, which presents a summary of the article; read an abstract before delving into an article to get an overview of the text’s main points.

Using Genre Features to Your Benefit

As the previous section indicates, you can use genre features to make your reading both effective and efficient. In other words, if you know what you are looking at in terms of a genre, you can use that text’s features to help process content as you read. To grasp the usefulness of this point, review an extract from a formal report entitled “Supporting Crew Autonomy in Deep Space Exploration: Preliminary Onboard Capability Requirements and Proposed Research Questions: Technical Report of the Autonomous Crew Operations Technical Interchange

Meeting” (Wu & Vera, 2019, pp. iii, 1-3). What features of the extract help you understand the text’s key points?

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Supporting Crew Autonomy in Deep Space Exploration: Preliminary Onboard Capability Requirements and Proposed Research Questions

Technical Report of the Autonomous Crew Operations Technical Interchange Meeting

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July 2019

Supporting Crew Autonomy in Deep Space Exploration: Preliminary Onboard Capability Requirements and Proposed Research Questions

Technical Report of the Autonomous Crew Operations Technical Interchange Meeting

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Executive Summary

Communication delays are a critical challenge posed by long duration deep space exploration. Space missions historically have relied on an ever-present Mission Control Center (MCC) to direct operations in near real-time. As unanticipated anomalies that defeat fault detection and resolution systems do arise, the lack of real-time communication will significantly weaken what the MCC support represents: a reliable safety net for the flight crew through its deep and diverse areas of expertise and investigative resources. As a consequence, future space vehicles and habitats need to be equipped with capabilities to support the flight crew to operate with little or no ground support. Considerations must be given to vehicle and mission designs that will fortify the traditionally ground-centered safety net and forge new support systems, when communication delays exist.

In August 2018, NASA's Human Research Program, through its Human Factors and Behavioral Performance Element, convened a Technical Interchange Meeting (TIM) on Autonomous Crew Operations at NASA Ames Research Center. The goal of the meeting was to gather input from NASA centers, industry, academia, and branches of the Department of Defense (DoD) to address how intelligent technologies can be applied to augment onboard capabilities to support crew anomaly response. The TIM featured 24 presentations by 29 speakers and hosted a total of 59 attendees, including 43 from 5 NASA centers (Ames, Johnson, Langley, Marshall, and Jet Propulsion Lab) and 4 from the DoD (3 from Army Research Lab and 1 from Naval Postgraduate School), with remaining attendees from academia (e.g., UC Davis, CMU) and industry (e.g., IBM, Siemens).

Discussions were centered around three themes: standards and guidelines, lessons learned in analog environments, and technologies. To help provide a framework for discussion, a concept matrix describing anomaly response processes was created prior to the TIM (Figure 1, page 6). The matrix captures the steps involved (monitoring and detection, diagnosis, solution development and evaluation, solution implementation and verification, resolution documentation) as well as the resources and capabilities required to support these steps (data, knowledge, analysis, synthesis,

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resource management). A wallpaper size printout of the matrix was utilized at the TIM to solicit attendee inputs along the three themes; the activity garnered 108 submissions of ideas.

Overall, what emerged from TIM discussions was a picture of mismatch between crew anomaly response needs and support that can be provided by existing intelligent technologies. The needs are broad, spanning multiple steps and processes/resources, with many of which lacking support from existing technologies, such as knowledge management throughout the steps of problem solving (especially in resolution documentation) and manpower management. The solutions provided by existing intelligent technologies are specific to the steps/processes that they are designed to support and constrained to solving only problems similar to those that have occurred before. What is lacking from technologies is typically made up by humans, specifically their complex critical thinking, creative problem solving, and domain expertise.

In the end, the TIM highlighted the pressing need to support responses to onboard anomalies during autonomous crew operations, particularly those that have eluded the system tests, inspection, and other assurance processes. Such anomalies can potentially threaten crew and vehicle safety, as well as significantly impact overall operations with additional workload. These fairly rare events are difficult to anticipate and prepare for, given the state-of-the-art in intelligent technologies. This is true even for anomalies that stem from "unknown knowns"—cases in which there is sufficient external information to characterize the problem but the overall pattern fails to be recognized by the problem solver, or in which the internal knowledge needed to solve a problem is held tacitly and potentially accessible by the problem solver but not articulated. It follows that the ability to tackle anomalies lies not only with the availability of relevant information and knowledge but also their accessibility in times of need. To that end, we propose research questions along the following three broad themes:

- How intelligent technologies can help make relevant knowledge and information available?
- How intelligent technologies can help make relevant knowledge and information accessible?
- How intelligent technologies can help support the crew operating as a team in anomaly response processes?

1. Introduction

The success of long duration deep space exploration missions will require fundamental changes in spaceflight operations. Instead of depending on frequent real-time communications with a large Mission Control Center (MCC) ground support team of diverse specialties to provide direction (see Dempsey et al., 2018 for a detailed description of the range of support MCC provides), a flight crew of 4 will need to function more autonomously in response to anticipated reduction in communication quantity and quality as well as unanticipated blackouts. The impact will be felt particularly in dealing with unanticipated, off-nominal situations. A delay or absence of ground support during unanticipated contingencies can become a significant hazard and increase the risk of jeopardizing crew and vehicle safety if there are not sufficient onboard capabilities to assist with troubleshooting and contingency management. The attainment of increased crew autonomy therefore lies critically in the ability to augment the vehicle/habitat with sufficient capabilities so that the 4-person flight crew can, on their own, perform the kind of anomaly response that had previously been done mostly by MCC in the face of the expected communication delays or unexpected blackouts.

As a first step toward identifying onboard capabilities that will enable the flight crew to troubleshoot unanticipated anomalies on their own, including the intelligent technologies that might be a part of those capabilities, NASA's Human Research Program, through its Human Factors and Behavioral Performance Element, convened a Technical Interchange Meeting (TIM) on Autonomous Crew Operations at NASA Ames Research Center on August 6–7, 2018. The goal of the meeting was to gather input from NASA centers, industry, academia, and branches of the Department of Defense (DoD) to address how intelligent technologies can be applied to augment onboard crew capabilities to support vehicle/habitat troubleshooting and maintenance. The focus was on supporting the flight crew in troubleshooting anomalies that are neither outright emergencies (i.e., with well-established response protocols) nor slow-rolling enough that the crew are confident they can wait for the ground to work them. Rather, it was on the types of anomalies that affect critical systems with high uncertainties in consequences if left untended that would require the crew to immediately begin troubleshooting without ground support.

The objective of the present report is twofold. First, it aims to capture and distill ideas that emerged during the TIM, particularly in terms of the support the crew will need for troubleshooting and the technologies that potentially can provide such support. Second, it aims to examine these ideas in light of the processes and needs behind troubleshooting unanticipated anomalies, identify the areas of insufficiencies, and propose topics for future research.

The present report will begin with a background discussion on crew autonomy and introduce a troubleshooting framework to aid discussion. It then continues with a recap of the TIM, focusing on troubleshooting needs and support. It concludes with a set of research questions that need to be addressed in order for the capabilities to be developed and validated.

1.1 Motivation for Crew Autonomy

As human space exploration progresses from low Earth orbit to the Moon and beyond, communication between crews in space and flight controllers on Earth will experience increasing one-way light time delays, from 1.3 sec for the Moon to 22 min for Mars at its maximum distance from Earth (Frank et al., 2013; Love & Reagan, 2013). In response, crews will have to function more independently from mission control on the ground, taking on a more active role in directing, conducting, and planning missions and maintaining systems. Such crew autonomy will require more capabilities be built-in onboard vehicles or habitats, most likely in the form of intelligent systems.

Now review an extract from a scholarly journal article entitled “Psychology of Personal Data Collection” (Skatova & Goulding, 2019, pp. 1-2). What features of the extract help you understand the text’s key points?

RESEARCH ARTICLE

Psychology of personal data donation

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Abstract

Advances in digital technology have led to large amounts of personal data being recorded and retained by industry, constituting an invaluable asset to private organizations. The implementation of the General Data Protection Regulation in the EU, including the UK, fundamentally reshaped how data is handled across every sector. It enables the general public to access data collected about them by organisations, opening up the possibility of this data being used for research that benefits the public themselves; for example, to uncover lifestyle causes of poor health outcomes. A significant barrier for using this commercial data for academic research, however, is the lack of publicly acceptable research frameworks. Data donation—the act of an individual actively consenting to donate their personal data for research—could enable the use of commercial data for the benefit of society. However, it is not clear which motives, if any, would drive people to donate their personal data for this purpose. In this paper we present the results of a large-scale survey (N = 1,300) that studied intentions and reasons to donate personal data. We found that over half of individuals are willing to donate their personal data for research that could benefit the wider general public. We identified three distinct reasons to donate personal data: an opportunity to achieve self-benefit, social duty, and the need to understand the purpose of data donation. We developed a questionnaire to measure those three reasons and provided further evidence on the validity of the scales. Our results demonstrate that these reasons predict people's intentions to donate personal data over and above generic altruistic motives. We show that a *social duty* is the strongest predictor of the intention to donate personal data, while *understanding the purpose of data donation* also positively predicts the intentions to donate personal data. In contrast, *self-serving motives* show a negative association with intentions to donate personal data. The findings presented here examine people's reasons for data donation to help inform the ethical use of commercially collected personal data for academic research for public good.

Introduction

As we go about our daily routines, we leave a trail of digital information which is harvested and harnessed by industry to optimise their services and increase profits. Retailers have used and analysis, decision to publish, or preparation of the manuscript.

Competing interests: The authors have declared that no competing interests exist.

this data to revolutionise their working practices by leveraging personal data streams for business processes and customer experience optimisation [1–3]. Attention has turned to the value that these everyday digital data streams, representing real-world and real-time behaviours, could contribute to benefit the public good by being used for health research [4–7]. Examples include mobile phone data which encode patterns of mobility, isolation, physical activity and sleep; retail data revealing calorie and nutrient intake [8], medication adherence and alcohol consumption; transport data that can evidence our lifestyles and daily contexts; web logs reflecting the issues that concern us the most [9].

Historically using industry data for academic health research has been difficult due to the absence of established frameworks for personal data sharing between industry and non-industry (e.g., academic) researchers, and the absence of choice for individuals to decide with whom to share their data. Previously, whilst individuals generated personal data reflecting various aspects of their behaviour which had value for companies, they had little power over how their data was used, in the best-case scenario trading benefits for the use of their data; for example, shoppers use loyalty cards to receive discounts in their purchases. Changes in data sharing and privacy laws, such as the introduction of General Data Protection Regulation (GDPR) drastically altered the rights individuals in the EU have about personal data collected on them [10]. Specifically, GDPR introduces Right to Data Portability, which allows data subjects (i.e., general public) request to obtain data that a data controller (i.e., supermarket) holds on them and to reuse it for their own purposes. Because of these changes in data law, it is now possible for the industry-collected data to be shared by individuals for research benefiting public good as individuals are free to either store the data for personal use or to transmit it to another data controller (i.e., academic researcher). The right to data portability applies to personal data that an individual has given to a data controller; when the processing is carried out by automated means and includes observed data about the individual (e.g., person's search history or record of their shopping). This brings with it the potential of opening up vast untapped pre-existing data resources that could advance health research as it is now possible for a member of the general public to transfer their personal data (collected by any commercial entity) to an academic researcher in a machine-readable format. Some limitations of Right to Data Portability include timescales–a data controller can take up to a month for the data transfer, and the fact that this right does not include inferred data on the individual that a data controller might have (e.g., political interests or sexuality inferred from online search history).

Whilst such data transfer is theoretically possible, the questions remain; would people donate their personal data for academic health research, and if so, what would motivate them to engage in this prosocial act? To explore these questions, here we outline the similarities of data donation with other prosocial behaviours, and examine how different prosocial motivations could manifest themselves in acts of data donation.

Data donation and prosocial behaviour

The advent of the digital economy and an increasingly digitally connected society has produced a spectrum of new sharing relationships. These range from food sharing [11], to crowdfunding [12], mass digital fundraising [13] and slacktivism [14,15]. Some of these activities are characterised as 'digital philanthropy': the process of donating various types and forms of data by companies for public good [16,17].

'Prosocial behaviour' is an umbrella term that describes activities undertaken to benefit other individuals or society as a whole [18], including actions such as volunteer work [19], helpful interventions [20]; blood donation [21] and donating money to those in need [22].

Finally, consider this textbook chapter. What genre features of the chapter help you understand the text's key points?

Using Writing Patterns to Your Benefit

Many technical and academic texts rely on common patterns of organization for their development. A text may feature one prominent pattern or combine patterns to address audience, purpose, context, and genre considerations. The patterns establish how writers structure or group information together, and by recognizing the patterns, you may be able to perceive how an author delivers main and subsidiary points and endeavors to communicate information to readers. Figure 2, adapted from Excelsior Online Writing Lab (2020b), presents a synopsis of common writing patterns and the words that signal their use.

How to Identify Writing Patterns

Analyze: break something down into its parts and examine them

Writing Patterns Help You:

- Focus your attention on a text and anticipate where it is going
- Remember what you read
- Develop your own writing

Writing Pattern:

A specific way of organizing ideas to convey a certain type of argument

Also known as

- Patterns of organization
- Rhetorical modes
- Rhetorical styles

The 8 Most Common Writing Patterns

Type	Description	Signal Words
Definition	Explain the meaning of a word or phrase	*is, refers to, means, is defined as, is called, is characterized by, entails*
Classification	Divide a topic into parts based on specific characteristics	*classified as, comprises, is comprised of, consists of, elements, kinds, types, stages, groups*
Generalization and Example	Provide a general statement followed by specific examples to prove the statement	*for example, for instance, to illustrate, such as*
Cause and Effect	Show how things are related by explaining how one thing causes another	*causes, effects, is caused by, is produced by, is the result of, results from, because, consequently, as a result*
Comparison / Contrast	Compare and contrast two or more things to show how they are similar and/or different	**Similarity:** *like, similarly, likewise, resembles, same, in comparison, in the same way, both, share* **Difference:** *unlike, in contrast, differently, however, despite, whereas, on the other hand, on the contrary, differs from, rather than*
List	Present lists of information	*also, in addition, another, additionally, furthermore, moreover, next, finally, first, second, third, etc.*
Sequence	Describe a process, series of events, spatial order, or order of importance	*first, second, before, after, next, then, last, finally, steps, phases, stages, dates, times, numbers, letters*

Figure 2. An overview of common writing patterns and the words that signal their use

In addition to identifying writing patterns while reading, you can also employ the patterns in your own writing to help readers determine the direction of your text and the underlying foundation for its development.

Monitoring Your Comprehension

Finding the main idea and paying attention to text features as you read can help you determine what you should know. Just as important, however, is being able to figure out what you do not know and developing a strategy to deal with it.

Textbooks often include comprehension questions in the margins or at the end of a section or chapter. As you read, stop occasionally to answer these questions. Use them to identify sections you may need to reread, read more carefully, or ask questions about in class.

Even when a text does not have built-in comprehension features, you can actively monitor your own comprehension by applying the following strategies and adapting them as needed to suit different types of texts.

- Ask and answer questions. When you begin reading a section, try to identify two or three questions you should be able to answer after you finish it. Write down your questions and use them to test yourself on the reading. If you cannot answer a question, try to ascertain why. Is the answer buried in that section but just not coming across to you? Or do you expect to find the answer in another part of the reading?
- Summarize central ideas. At the end of each section, pause to briefly summarize the main points in your own words. If you have trouble doing so, revisit that section.
- Do not read in a vacuum. Look for opportunities to discuss the reading with your classmates. Participating in such discussions can help you gauge whether your understanding of the main points aligns with that of your peers. These discussions can also provide insight into the reading task itself. If everyone in class struggled with the reading, it may be exceptionally challenging; conversely, if it was easy for everyone but you, you may need to seek outside help.

Although college reading can be challenging, actively working to comprehend texts can make the reading process more meaningful. Also know that all learners struggle with things in college; nevertheless, if you are sincerely trying to keep up with and understand the course reading but feel like you are struggling, seek help early. Visit your university learning center for assistance, speak up in class, or schedule a meeting with your instructor. University instructors respect students who are proactive about their own learning, and most will work hard to help students who make the effort to help themselves.

Devising Ways to Work with Vocabulary

College-level reading assignments will almost certainly introduce you to new vocabulary, words that may help you understand a concept, theory, field of study, research method, or text. The first step in working with unknown vocabulary is to define it, and by reading the text surrounding an unknown word, you may be able to infer the word’s meaning from context.

Figure 3, adapted from Excelsior Online Writing Lab (2020e), details how to use context to determine a word's meaning.

How to Use Context Clues to Define Words

Context Clue:

A word or phrase in the same sentence or a nearby sentence that can help the reader decipher the meaning of an unfamiliar word.

Type	Explanation & Tips	Example
Definition Clue	A definition clue is a word or phrase that defines the unfamiliar word. Look for words or phrases that introduce a definition for the unfamiliar word, such as defined as, means, and refers to. Also, look for punctuation marks that set off a definition, such as quotation marks, parentheses, and brackets.	Telepathy is defined as the ability to communicate information to another person without the use of any known senses or communication devices.
Synonym Clue	A synonym clue is a word or phrase that has a similar meaning to the unfamiliar word. Look for words or phrases that introduce a synonym, such as in other words, or, that is to say, and also known as. Also, look for punctuation marks that set off a synonym, such as commas, parentheses, dashes, and brackets.	The cheerleader appeared vapid – spiritless – as he delivered his pitiful performance in front of the stands.
Contrast Clue	A contrast clue is a word or phrase that has the opposite meaning of the unfamiliar word. In other words, it's an antonym. Look for words or phrased that introduce a contrast, such as however, but, instead of, on the other hand, on the contrary, whereas, in contrast, unlike, although, and even though.	Lions are solitary creatures that prefer to hunt alone, but hyenas are gregarious creatures that hunt in packs.
Example Clue	An example clue is a word or phrase that provides an example to illustrate the unfamiliar word. Look for words of phrases that introduce examples, such as for example, for instance, to illustrate, like, and such as.	The manager disliked obsequious behavior, such as fawning and kowtowing.
Experiencing Clue	An experience clue draws upon personal experience or background knowledge to help you infer the meaning of the unfamiliar word. Look for a word, phrase, or sentence that includes a familiar experience or information you already know.	Television audiences are familiar with disingenuous ads that make grand promises.
Adjacent Clue	An adjacent clue is a word or phrase in a nearby sentence that explains the meaning of the unfamiliar word.	Nanotechnology is becoming more widespread in society. As computer chips continue to shrink, manufacturers are placing them in everything from clothing, to building materials, to even the human body.

Figure 3. Ways to use context clues to identify the meaning of unknown vocabulary

Call upon the different types of context clues in Figure 3 to efficiently define the meanings of unknown words you meet while reading.

College-level reading oftentimes contains specialized terminology, or language that is common to a particular field of study or professional group that may not be used widely by individuals outside that area. Besides using context to determine the meaning of such terms, you may also need to look up their definitions in a reference source and work with those definitions to retain their meaning. Flashcards that provide details about words and their situations for use offer one means of engaging with such vocabulary. Figure 4, adapted from Excelsior Online Writing Lab (2020g), demonstrates how to create this type of meaningful flashcard.

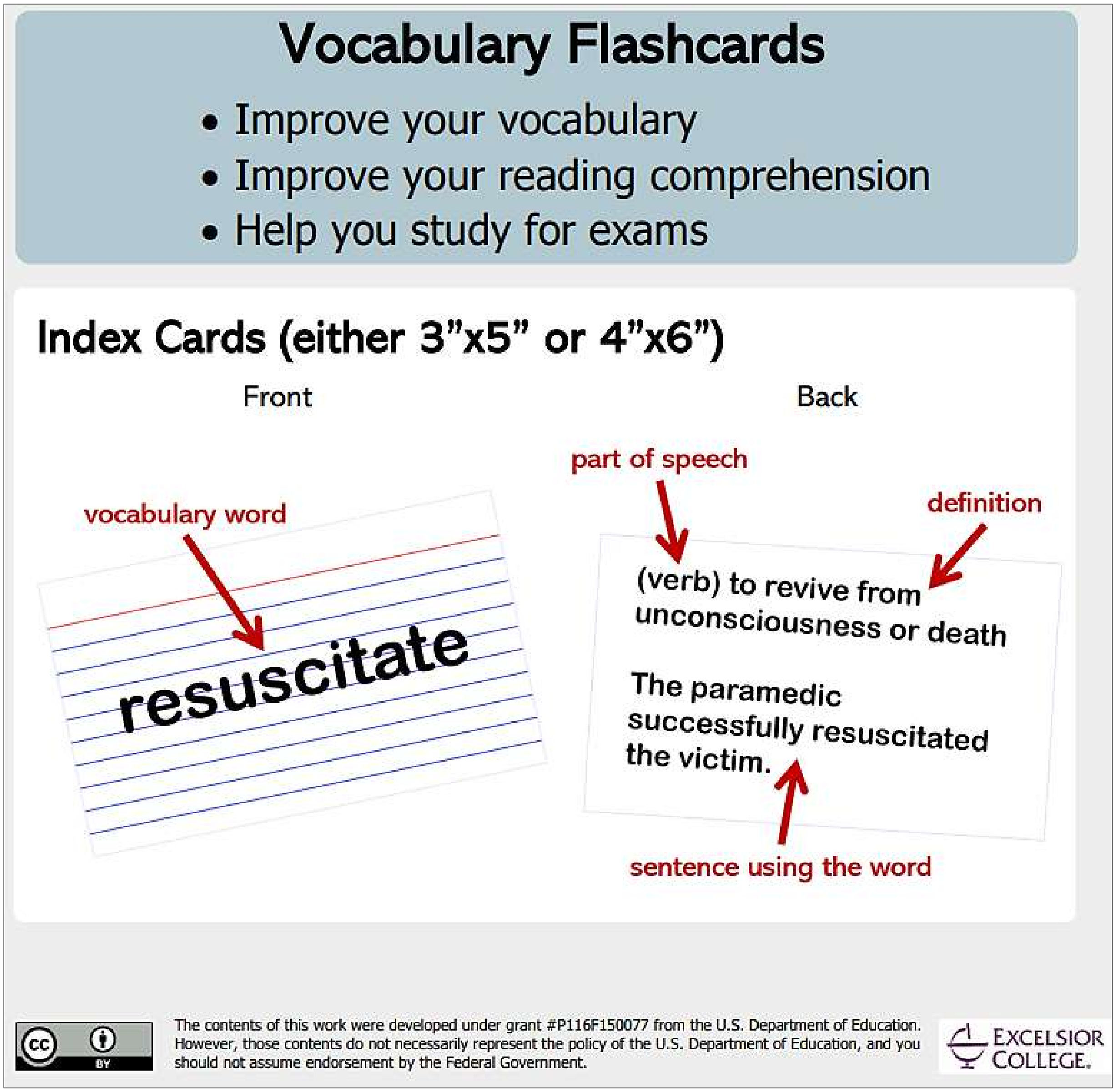

Figure 4. How to create flashcards to promote language understanding and retention

Figure 5, adapted from Excelsior Online Writing Lab (2020f), describes how to create another vocabulary study tool: a terminology chart for recording specifics about specialized terms.

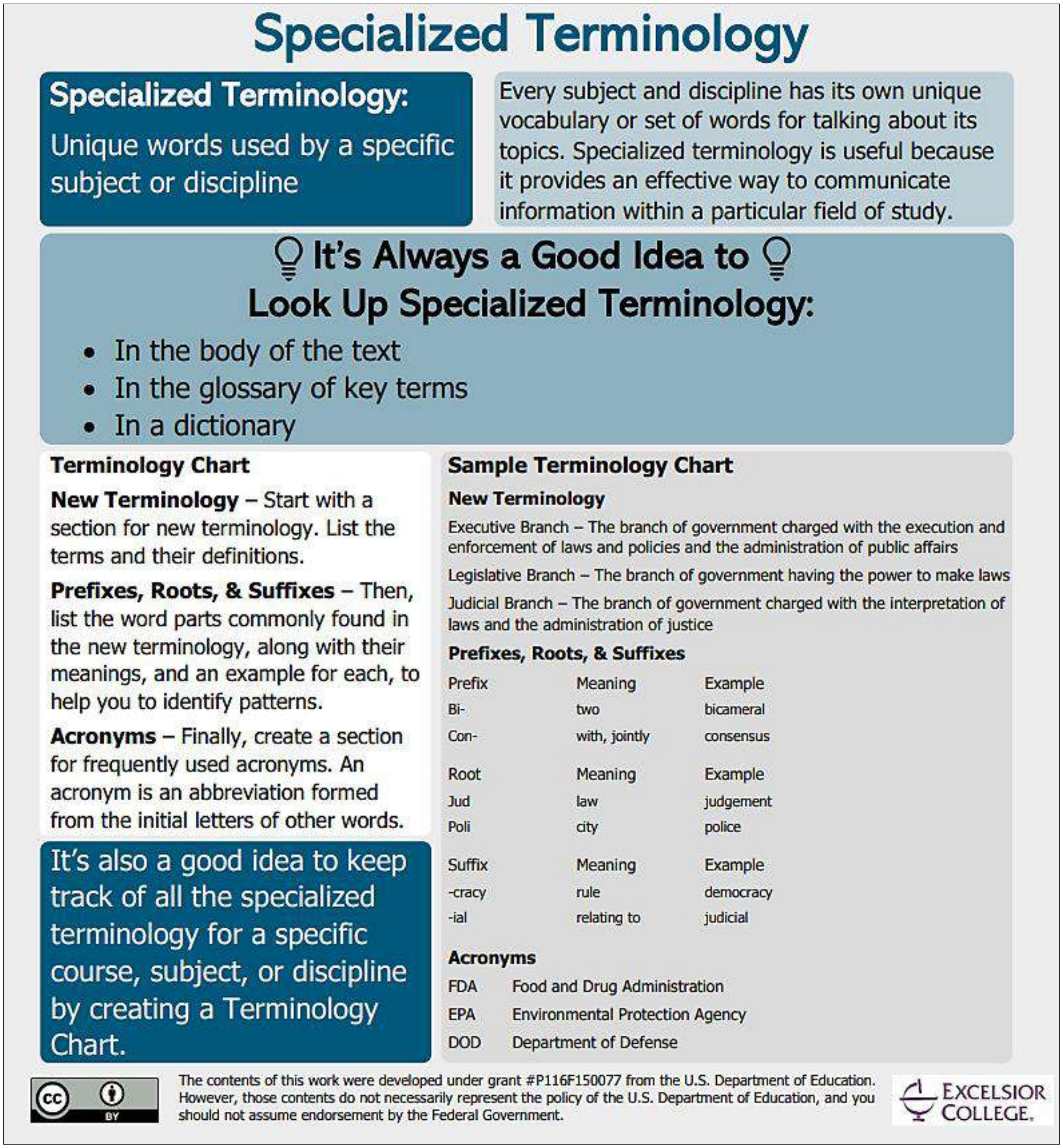

Figure 5. A terminology chart is a detailed means of working with specialized vocabulary

The in-depth nature of a terminology chart calls for active engagement with reading material, thus promoting its comprehension and retention.

While flashcards and terminology charts list word information linearly, other vocabulary comprehension approaches present similar information in visually associative formats. For instance, a KIM chart—a **K**ey word, **I**nformation, **M**emory cue chart—provides vocabulary details in table form. Refer to Figure 6, adapted from Excelsior Online Writing Lab (2020c), for a how-to guide to creating this type of table.

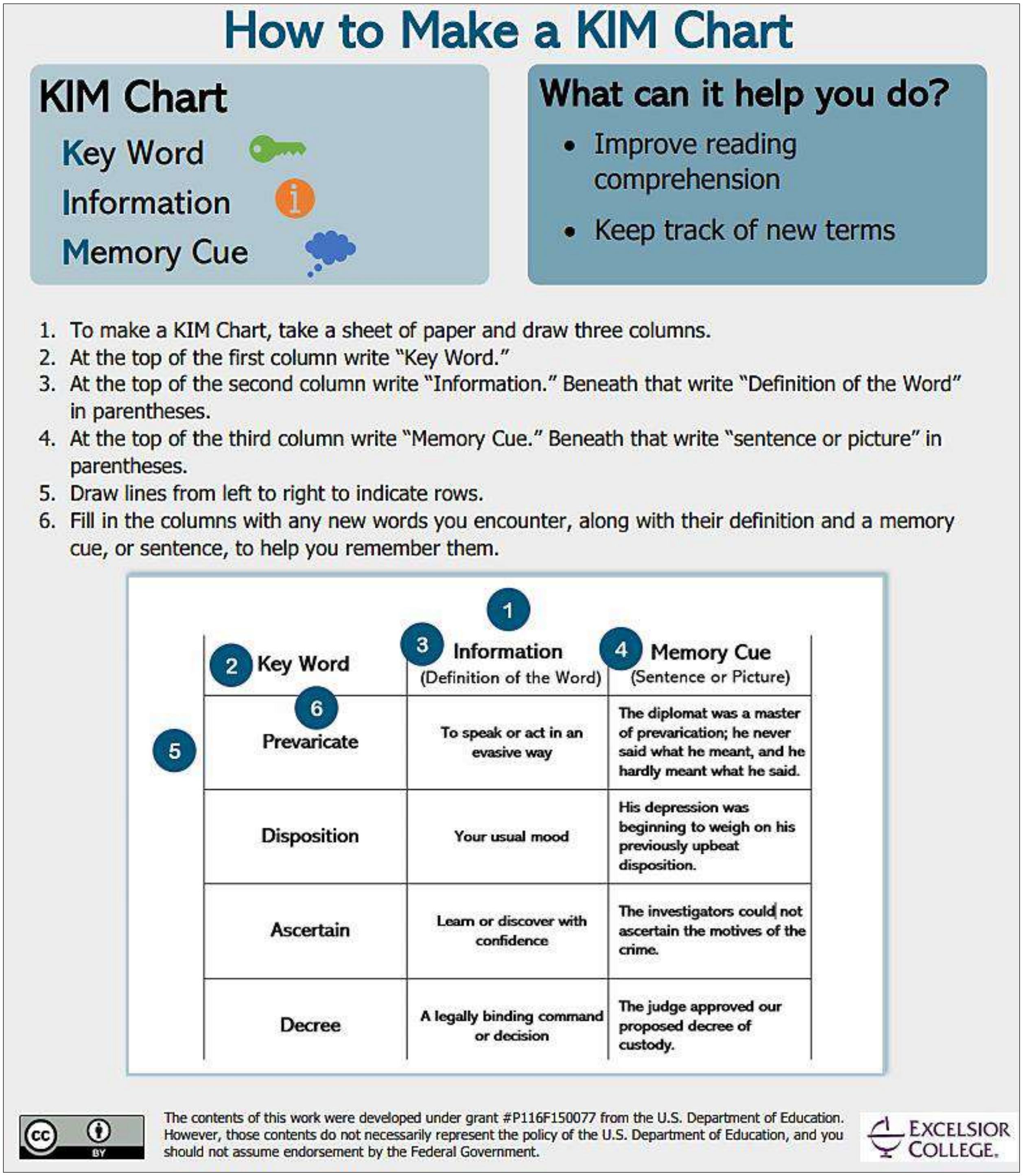

Figure 6. How to create a KIM chart, a visual tool for promoting reading comprehension

Word webs offer another visual approach to identifying the meanings of vocabulary terms and their uses; unlike the table format of KIM charts, however, this approach resembles a mind map, a visual organizing tool that uses shapes, symbols, and sometimes colors to distinguish and order pieces of connected information. For guidance on how to create a word web, see Figure 7, which is adapted from Excelsior Online Writing Lab (2020d).

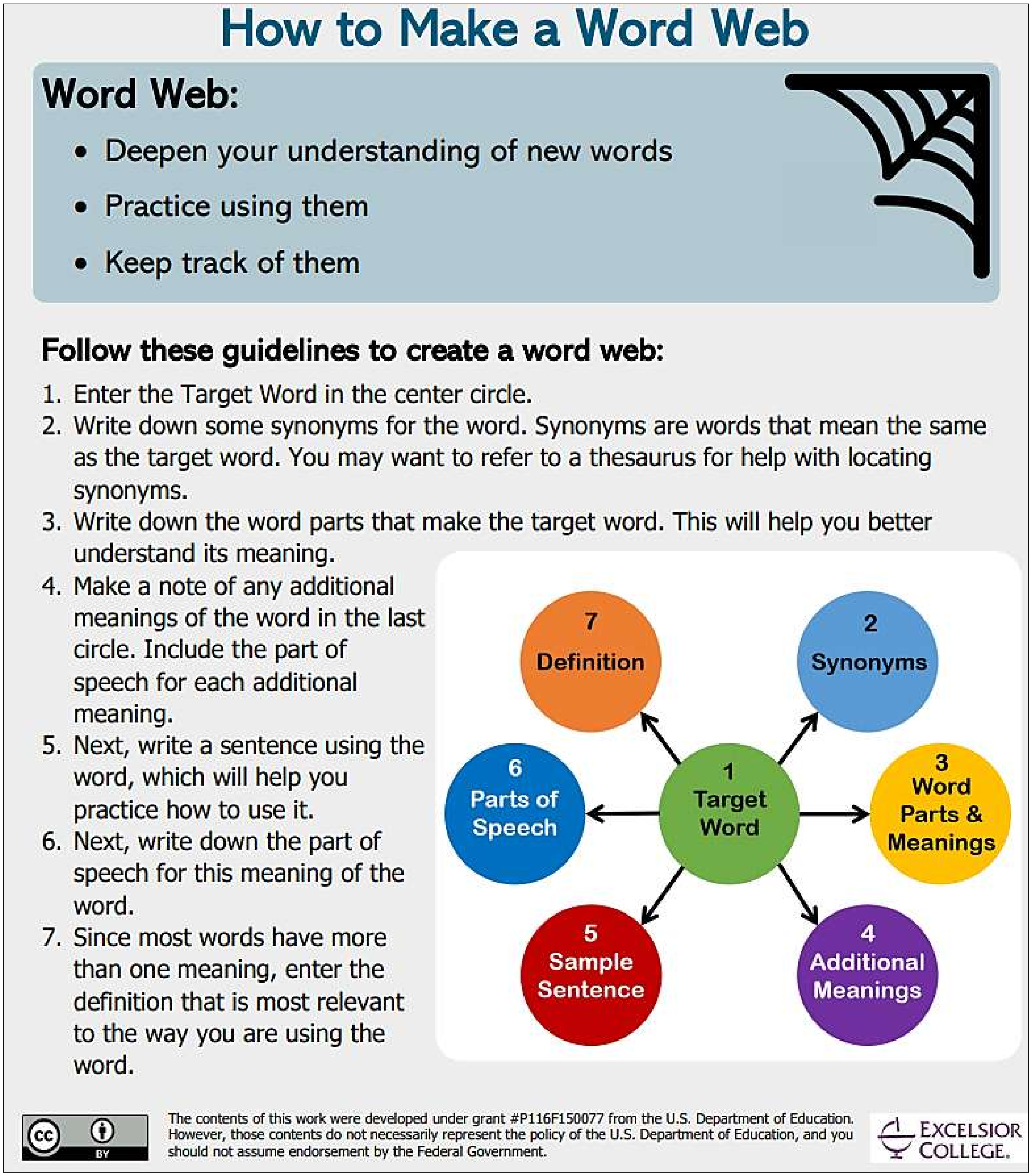

Figure 7. A word web provides details of a word using visual organizing techniques

When you encounter unknown words in a text, use the active reading techniques described herein to determine and retain their meanings.

Practicing the Vocabulary Comprehension Techniques

Having read about various techniques available to improve reading comprehension, apply them to the texts presented previously in this chapter: “Supporting Crew Autonomy in Deep Space Exploration: Preliminary Onboard Capability Requirements and Proposed Research Questions: Technical Report of the Autonomous Crew Operations Technical Interchange Meeting” (Wu & Vera, 2019, pp. iii, 1-3) and “Psychology of Personal Data Collection” (Skatova & Goulding, 2019, pp. 1-2). Select an unfamiliar vocabulary term from each of the texts, and define it using one of the reading comprehension techniques described herein. To gain experience with the various techniques, use a different one for each term.

Understanding How to Read Actively

Now that you know some useful techniques for working with college-level texts, your reading assignments may feel more manageable. You know to make a plan for getting the reading done before diving into a reading assignment and to be on the lookout for main points and unknown vocabulary while reading a text. Regardless, to derive the maximum benefit from a reading assignment, you will also need to engage actively with the text as a whole. The SQ3R method, which calls upon a reader to survey, question, read, recite, and review/reflect, provides a means to achieve this goal.

The SQ3R method is actually a series of *processes* (steps or stages) that ask a reader to

- Survey a text before reading it.
- Form questions about the text prior to reading.

- Read the text.
- Recite and/or record important points during and after reading.
- Review and reflect on the text after reading.

Each of these processes is covered in further detail in the paragraphs to follow. Although they are discussed as discrete stages for purposes of definition, similar to writing processes, reading processes can be *recursive*, meaning that they may happen in repeated, interweaving sequences, as a reader engages with a text.

Survey

Before you read, first preview the text. As noted earlier, reading introductory paragraphs and headings can help you begin to figure out the author's main point and identify what important topics will be covered. However, surveying does not stop there. Consider the title carefully, for instance. In a piece of technical or academic writing, the title will typically be specific and informative, meaning it should give you some inclination of what the text is about. In addition, scan the text for any illustrations; these will oftentimes present complex pieces of information in ways that can be readily understood by readers. To get a sense of key points covered, read topic sentences, which may appear at the beginnings of body paragraphs in technical and academic pieces. Bold and italicized language can also signal key points or vocabulary terms. And for a summary of a text's main ideas, read the abstract, if one is provided, and conclusion.

Question

Developing questions prior to reading may heighten your engagement with a text and help you to better understand it. Here are some starter items to consider during the questioning phase.

- What do you expect to learn from the reading?
- How might the text apply to you?
- If the text's headings point to related concepts, how are they similar and different, and why are the similarities and differences important?
- How does the text relate to historical events, news items, previous research, or topics you have encountered in other readings?
- What type of genre does the text represent?
- How are the text's structure, design, and way of incorporating source information reflective of the genre?
- Who is the text's target audience?
- Who is the author, and why is that person qualified to write on the topic?
- Does the author try to inform, entertain, sell, persuade, or combine these intentions in the piece, and how do you know?

- If the text aims to persuade, what are its main claims, reasons, and evidence?
- Are claims, reasons, and evidence presented in a logical and well-organized way?
- Does the author evenhandedly consider opposing viewpoints, reasons, and evidence?

During this phase, you may also think of other questions that relate to in-class discussions, previous readings, or points that arose during the surveying process.

Read

Answer your questions while reading the text, and determine whether your first impressions of it were correct. Are the author's main points and overall approach in line with what you predicted, or does the text contain a few surprises? You may also think of other questions or matters for further consideration or in-class discussion while reading. Make notes about these things and about unknown vocabulary and points that relate to your writing assignments or other texts as you read.

Recite

While reading, pause to say or write down important points at the end of each section of text or when there is an obvious shift in the writer's focus. Put the text aside for a moment, and talk about the main points and any important answers you found there or record this information in note form. Either way, the physical act of articulating the information can increase your chances of remembering it.

Review and Reflect

Once you have finished reading a text, contextualize it in terms of your viewpoints, research interests, course assignments, class discussions, or other texts you have read. Making such associations can help you establish a personal connection to the piece and grasp its relevance to your college work. Here are a few starter questions to consider during this stage.

- Have you answered each of your initial questions accurately?
- Did anything about the text surprise you, upset you, or make you think?
- Did you strongly agree or disagree with any points in the text, and why?
- How will you use the information in the text?
- Which topics in the text would you like to explore further, and how will you do this?

If the text you read includes review questions or if your instructor provided a study guide, you can also use these tools to structure your review. To make review optimally productive, record answers in a more detailed form than you used while reading, such as in an outline or list. You can then return to that material several days and weeks later to make sure you remember the information and can reflect on how it applies to a writing assignment, quiz, or exam.

At this stage, you might also write a summary of the text, to ensure you understand and can recall it. When producing a summary, restate in your own words the text's major points, but do not indicate your opinions about or reactions to them. Avoid a play-by-play description of points covered in the text (*the author said this first and this second*) by focusing only on main themes, keeping in mind that a summary is shorter than an original text because it excludes details.

When beginning a summary, think about the main point of each section of the text, and record your ideas using your own words. It may help to remember that in much technical and academic writing, the topic sentence of a paragraph will explicitly point to the overarching idea addressed in the paragraph; nevertheless, if you have difficulty locating a topic sentence in a piece, the author may have implied his or her central point in the paragraph without overtly stating it. In such instances, think carefully about the meaning of the paragraph, and write this down in your own words.

Carry out the following steps to complete your summary.

1. Put the original text away so you cannot look at it while summarizing.
2. Review the notes you made about the main point of each section of the text.
3. Revise the notes so that they convey complete, concise sentences written in your own words. You do not need to change fixed expressions, such as *global warming*.
4. Write a sentence to introduce the summary. Include the author's name and the full title of the text, and provide a general statement about the purpose of the piece.
5. Write a sentence to conclude the summary.
6. Put your summary away for a while.
7. Return to your summary to revise it while ensuring that it reads smoothly, makes sense, and is written in your own words. Read it aloud to help detect errors you might have made.
8. Check the accuracy of your summary against the original text.
9. Provide an in-text citation and accompanying reference list entry for the original text.
10. Use the following checklist to ensure your summary is complete and follows standard summary guidelines.
    - ☐ Does the summary begin with an introductory sentence that provides the author's name, the full title of the original text, and a general statement about the text's purpose?
    - ☐ Does the summary end with a concluding sentence?

- Does the summary address the text's major points and avoid a play-by-play style?
- Is the summary an objective recapitulation of the original text's ideas rather than a subjective response? The summary should not include your opinions, thoughts, or feelings about the text (hint: it should not contain the word *I*).
- Does the summary provide too much detail? If so, what can be eliminated?
- Does the summary provide an in-text citation and accompanying reference list entry for the original text?

11. Exchange your summary with a classmate, and use the checklist above to review your peer's summary. Make suggestions for revision where necessary.
12. Revise your summary based on the peer feedback you receive.

These steps should help you produce a clear, concise, complete, and cohesive summary that accurately reflects the original text you read.

SQ3R Wrap Up

When used together, the SQ3R processes can help you fully engage with a piece of reading so your time spent working with it is both meaningful and rewarding.

Contemplating the Benefits of Active Reading

Active reading can benefit you in ways that go beyond just earning good grades. By practicing the strategies discussed in this chapter, you may find that you are more interested in your courses and are better able to relate your academic work to things in your life. Being an interested, engaged student can also help you form lasting connections with instructors and other students that can be personally and professionally valuable.

Activity: Troubleshooting Your Reading

Although college-level reading assignments can present challenges, these are not insurmountable, as this chapter explains. Take this point into account as you read the following troubleshooting section and complete the accompanying activity, which are adapted from Babin et al. (2017, pp. 18-20).

PROBLEM: Sometimes I put my reading off, and then when I have the motivation to do it, I'm out of time.

Response: Do a manageable bit of reading every day so that it is not demotivating.

PROBLEM: If I don't understand some parts of the reading, I just skip over them and hope the teacher will explain them in class.

Response: Take responsibility for your own learning by talking with your instructor during office hours about sections of reading you do not understand.

In addition, try reading carefully, sentence by sentence. If you encounter unfamiliar terms and cannot guess their meanings from the words around them, look up their definitions. When you reach the end of a paragraph, summarize its main point.

Another option is to ask questions in class to encourage discussion about the text. You may gain valuable insight about the reading as you listen and respond to your classmates' comments.

PROBLEM: I don't like to read, so I do it fast and stick with the obvious meanings. When the teacher asks the class to dig deeper and figure out a text's significance, I get frustrated.

Response: College-level reading assignments tend to have multiple layers of meaning: obvious or surface-level meaning and deeper meaning. As you read, ask questions of the text to help you think more deeply about it: for example, what, when, where, who, why, how, and so what?

PROBLEM: Sometimes I jump to conclusions about what a text means and then later find out I didn't understand it completely.

Response: This usually happens when someone reads a text too quickly and does not engage with it. To avoid this problem, slow down and take time with the text by following the SQ3R method.

PROBLEM: When a text makes a point I strongly disagree with, I can't seem to go any further.

Response: As a college student, you must be ready to explore and examine a wide range of ideas, whether you agree with them or not. By approaching texts with an open and willing mind, you are primed to engage with diverse ideas, many of which you may not have encountered before.

PROBLEM: I'm a slow reader. It takes me a long time to read material, and sometimes I get panicked by the amount of assigned reading.

Response: You will likely derive the most benefit from reading sessions if you do a little bit of reading every day rather than several hours of reading at once. Be cognizant of what you need to read, and divide the assignment up among the days you have available. Reading 100 pages in a week may seem overwhelming, but reading 15 pages a day will be easier.

PROBLEM: Sometimes the teacher assigns content in an area I really know nothing about. I want to be a civil engineer. Why should I read philosophy or natural history, and how am I supposed to understand those subjects?

> Response: By reading a wide variety of texts, we both increase our knowledge and put our minds to work, and such mental exercise prepares the brain for innovative thinking. These opportunities also help us tackle unfamiliar reading and writing tasks—things we often encounter in the workplace.

PROBLEM: When I examine a text, I tend to automatically accept what it says, but the teacher is always encouraging us to ask questions and read critically.

> Response: The teacher wants you to more fully engage with the text by looking for implied rather than explicit meanings, thinking about the significance and relevance of points made, considering how the text makes these points, weighing the trustworthiness of evidence used, and reflecting on how the text relates to other course or reading material. The more you use these critical reading approaches, the more natural they become, which is helpful since you will be called upon to employ them throughout your time in college and beyond.

Identify one or two key issues from the troubleshooting section that you relate to, and consider how the responses offered might work for you. What additional ideas can you think of to troubleshoot these issues? Freewrite about these thoughts, and share your ideas in class.

Homework Task One: Applying Active Reading Techniques

Use the SQ3R method to read an essay entitled "Reading Games: Strategies for Reading Scholarly Sources" (Rosenberg, 2011), which can be found at https://wac.colostate.edu/books/writingspaces2/rosenberg--reading-games.pdf. After you read the essay, prepare a summary of it by employing the steps outlined in the "Review and Reflect" section of the current chapter. Remember to cite and reference the essay in your summary.

Ensure your summary is clear and reader friendly by taking into account the advice presented on the following multipage handout, produced by the Writing and Communication Centre, University of Waterloo (n.d.).

WORD CHOICE

Many students express the desire to "sound intelligent." This is often mistaken to mean that we should use our thesaurus as much as possible and replace word choices with more complex, higher-level words at all times. However, the best way to make your writing sound intelligent is to use words **accurately** and **appropriately** for the context of your subject matter, academic level, and audience. Use the following principles to guide your vocabulary decisions.

Stylistic Principles

Consider Your Audience

Reading and writing are usually not solitary activities. Think of written communication as a process with multiple players; often, at the most basic level, there exists a **writer**, a **message** to be conveyed, and an **audience** of one or more readers. Your job as a writer is to ensure that you consider your audience's needs when writing, including word choice and organization. Neglecting this aspect of your writing may mean that the message is lost or misinterpreted.

Here are some important questions to ask yourself about your audience that may direct the stylistic choices you make in your writing:

1. What is my audience's **level of knowledge** about my subject?
2. Is my audience comprised of **experts** in the field?
3. Am I trying to **persuade** my audience of something, or am I merely conveying **factual information?**

Even in a specialized, professional work environment, the level of knowledge your audience may have about the technical aspects of your work or area of expertise will vary. For example, in an engineering firm, you may be writing documentation for managers, peers in your field, human resources staff, accountants, or co-op students. Among these different positions, the **depth of knowledge about your topic will vary**, and so you should consider the **terminology**, **formality**, and **degree of context** when writing.

Choose Words that You Understand

It is important that you **understand** the words that you choose. Selecting a word because it sounds "smarter" or "more academic" can result in using words **incorrectly**, which detracts from the **credibility** of your argument.

Not all dictionaries are created equal, and many online dictionaries are inadequate for the requirements of professional and academic writing. One good resource is *Merriam Webster's Dictionary* (www.merriam-webster.com). This site includes **useful** and **accurate definitions** in addition to **illustrative quotations**, which allow you to better understand a word's meaning and how to use it. The UW Library also provides access to the *Oxford English Dictionary (OED)*, which includes not only **precise definitions** but also **extensive illustrations**.

UNIVERSITY OF WATERLOO

THE WRITING and Communication CENTRE

Prefer Simple to Complex Words

Often, writers assume that complex words make their writing impressive, which leads them to avoid using simple words. You will need to judge what is appropriate given the **context** in which you are writing, but most readers appreciate **directness**, so **avoid using complex words** where a simpler, more direct word can be used.

Avoid Unnecessary Jargon and Technical Terms

Jargon refers to terminology that is unique to **specific professions** or **areas of study** and are not generally known outside of those groups. Technical vocabulary is both useful and important in academic and professional writing, but it should be used only when an ordinary word would be less precise.

Select Precise Words

The French novelist Gustav Flaubert once remarked, "All talent for writing consists, after all, of nothing more than choosing words. It's precision that gives writing power." This observation applies to all kinds of writing. **Vague words** shift the writer's responsibility onto the **reader**, leaving him or her to figure out your meaning. **Precise words** communicate your meaning. Consider the following examples, both about Marie Curie's contribution to science:

e.g., The thing that she did was really important in the field.

The above sentence is imprecise. Using words like *thing* and *important* do not help the reader to understand the context of what was accomplished or in what ways *the thing that she did* impacted the broader *field*.

e.g., Marie Curie's research on radioactivity was innovative in its identification of previously unknown radioactive substances, including radium.

> Some common imprecise word choices that can almost always be replaced with stronger, more precise words include the following: good, bad, thing, stuff, important.

The above sentence is much clearer. The imprecise word *thing* has been replaced with the specific work that Curie accomplished, and the importance of her work has been directly identified.

Avoid Clichés

The word **cliché** is French for a stereotype block, used in printing to reproduce a single page many times. The word is applied to phrases that have lost their meaning through **overuse**:

e.g., outside the box, in this day and age, plagued by doubts, read between the lines

Recognising that we have used a cliché, we are in a position to choose more unique words.

Homework Task Two: Applying Active Reading Techniques

To further reflect on the essay "Reading Games: Strategies for Reading Scholarly Sources" (Rosenberg, 2011) and its pertinence to your own academic work, answer the three discussion questions on page 219 of the text. Be prepared to talk about your answers in class.

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Taking Notes

Stacey Corbitt

Chapter Overview

College is the place where young adults get many opportunities to gain experience – and sometimes fail spectacularly! – in a relatively safe environment. For that reason, this is the perfect time to experiment with new and different ways to engage with coursework and study habits. Spending time now to explore some proven methods of note-taking will increase your chances of academic success and carry over to professional success. This chapter aims to help students develop and learn to employ a method for taking well-organized, usable notes with the goal of improving the learner's experiences in college and beyond.

Taking Notes in Lectures

One difference between high school and college that many new college students learn early in their first semester is an expansion of note-taking. Were you taught to take notes in high school lecture classes, and reminded by your instructor to write information down, and even graded or quizzed on your class notes? Whether or not your high school experience included practice at taking notes, expect college coursework to present constant opportunities to write and review notes as part of your learning process. You will take notes in college in an effort to understand and remember new material, as well as to draw connections with what you already know.

College instructors have traditionally presented lessons in the form of lectures; and this material delivery method for higher education continues to be common for many disciplines, particularly in the first- and second-year level of university education. Whether large class sizes and venues make lectures the most efficient means of sharing information, or another set of circumstances dictate, college students can expect to get plenty of practice watching and listening to professors present lectures. Developing keen listening skills (discussed in another chapter) and a working method of note-taking for lectures is imperative to college success.

Taking Notes in Research

Students have continuous opportunities to experiment with notetaking methods for classroom-based learning: additionally, research assignments as well as opportunities to actively participate in scholarly research afforded to students may necessitate additional levels of note-taking skills. Primary research activities, for example, may lend themselves to taking notes in laboratory notebooks or field observation logbooks. Secondary research efforts benefit from students' ability to summarize and paraphrase source materials in real time while attaching citation information.

Note-Taking Styles

The information in this section was adapted from *Success in College, "*Chapter 4: Listening, taking notes, and remembering" (2012). The following table summarizes four of the most common methods of taking notes during lecture classes, research, and self-study sessions.

Method	Description	When to Use
Lists	A sequential listing of ideas as they are presented. Lists may be short phrases or complete paragraphs describing ideas in more detail.	This method is what most students use as a fallback if they haven't learned other methods. This method typically requires a lot of writing, and you may find that you are not keeping up with the professor. It is not easy for students to prioritize ideas in this method.
Outlines	The outline method places most important ideas along the left margin, which are numbered with roman numerals. Supporting ideas to these main concepts are indented and are noted with capital letters. Under each of these ideas, further detail can be added, designated with an Arabic number, a lowercase letter, and so forth.	A good method to use when material presented by the instructor is well organized. Easy to use when taking notes on your computer.
Concept Maps	When designing a concept map, place a central idea in the center of the page and then add lines and new circles in the page for new ideas. Use arrows and lines to connect the various ideas.	Great method to show relationships among ideas. Also good if the instructor tends to hop from one idea to another and back.
Cornell Method	The Cornell method uses a two-column approach. The left column takes up no more than a third of the page and is often referred to as the "cue" or "recall" column. The right column (about two-thirds of the page) is used for taking notes using any of the methods described above or a combination of them. After class or completing the reading, review your notes and write the key ideas and concepts or questions in the left column. You may also include a summary box at the bottom of the page, in which to write a summary of the class or reading in your own words.	The Cornell method can include any of the methods above and provides a useful format for calling out key concepts, prioritizing ideas, and organizing review work. Most colleges recommend using some form of the Cornell method.

Take a closer look at each of the featured methods of note-taking. All styles present some challenges, advantages, and disadvantages, as demonstrated in the examples provided below (adapted from *Success in College, 2012).* Try to keep an open mind to trying something new:

> There are various forms of taking notes, and which one you choose depends on both your personal style and the instructor's approach to the material. Each can be used in a notebook, index cards, or in a digital form on your laptop. No specific type is good for all students and all situations, so we recommend that you develop your own style, but you

should also be ready to modify it to fit the needs of a specific class or instructor. To be effective, all of these methods require you to listen actively and to think; merely jotting down words the instructor is saying will be of little use to you.

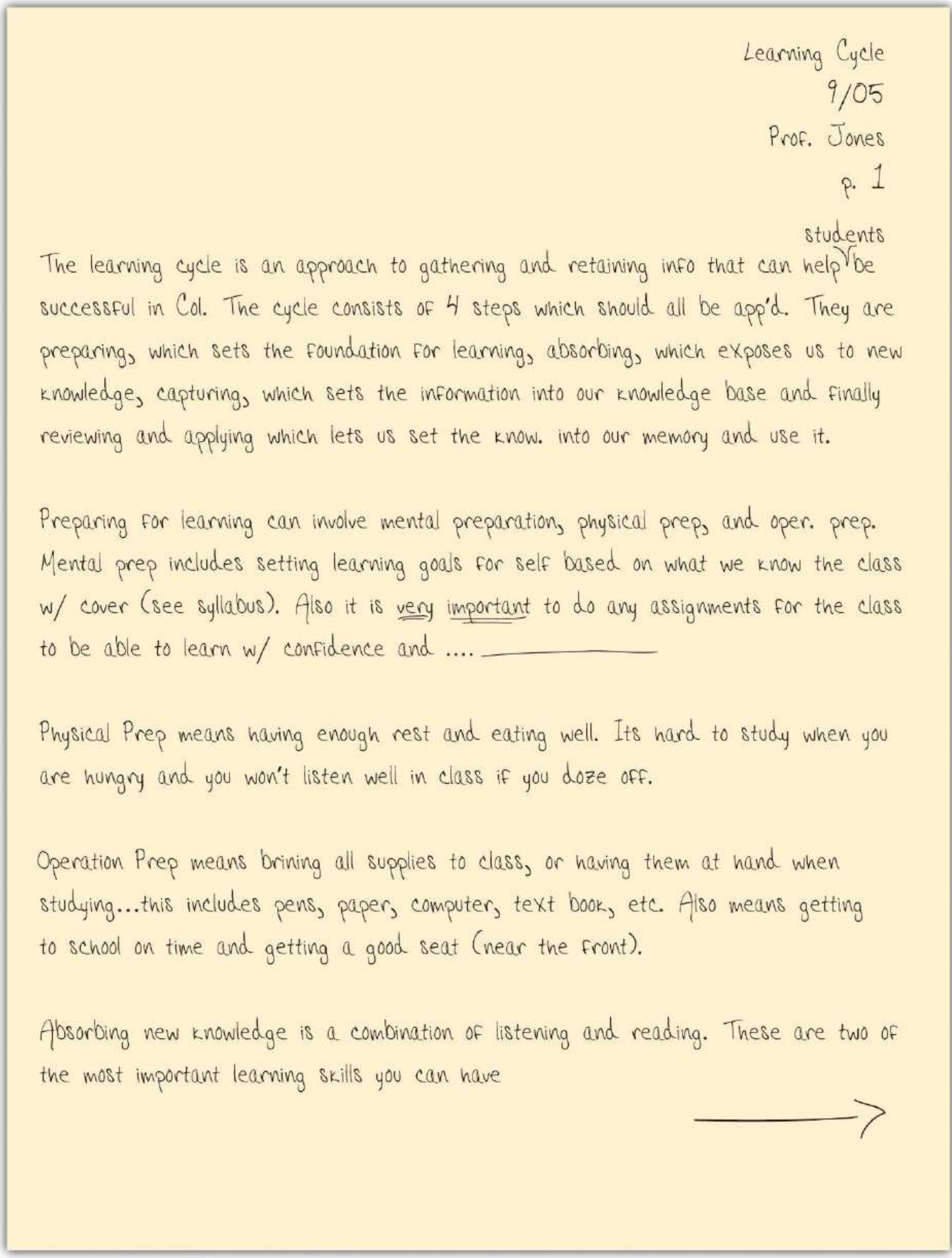
List Method

Success in College (2019) describes the first method in this way:

> The list method is usually not the best choice because it is focused exclusively on capturing as much of what the instructor says as possible, not on processing the information. Most students who have not learned effective study skills use this method, because it's easy to think that this is what note taking is all about. Even if you are skilled in some form of shorthand, you should probably also learn one of the other methods described here, because they are all better at helping you process and remember the material. You may want to take notes in class using the list method, but transcribe your notes to an outline or concept map method after class as a part of your review process. It is always important to review your notes as soon as possible after class and write a summary of the class in your own words.

Take a look at the example page of notes presented as Figure 1 on the next page. Have you employed the list method of taking notes in the past? What do you see as the *disadvantages* of relying on this note-taking method?

The passage above, quoted from *Success in College*, recommends that you "…transcribe your notes to [another] method after class…." Do you consider this extra work a disadvantage to the list method of note-taking? How might rewriting your notes *benefit* your learning?



Learning Cycle
9/05
Prof. Jones
p. 1

The learning cycle is an approach to gathering and retaining info that can help students be successful in Col. The cycle consists of 4 steps which should all be app'd. They are preparing, which sets the foundation for learning, absorbing, which exposes us to new knowledge, capturing, which sets the information into our knowledge base and finally reviewing and applying which lets us set the know. into our memory and use it.

Preparing for learning can involve mental preparation, physical prep, and oper. prep. Mental prep includes setting learning goals for self based on what we know the class w/ cover (see syllabus). Also it is very important to do any assignments for the class to be able to learn w/ confidence and .... __________

Physical Prep means having enough rest and eating well. Its hard to study when you are hungry and you won't listen well in class if you doze off.

Operation Prep means brining all supplies to class, or having them at hand when studying...this includes pens, paper, computer, text book, etc. Also means getting to school on time and getting a good seat (near the front).

Absorbing new knowledge is a combination of listening and reading. These are two of the most important learning skills you can have

Figure 1: Example notes demonstrating the list method (Success in College, 2019).

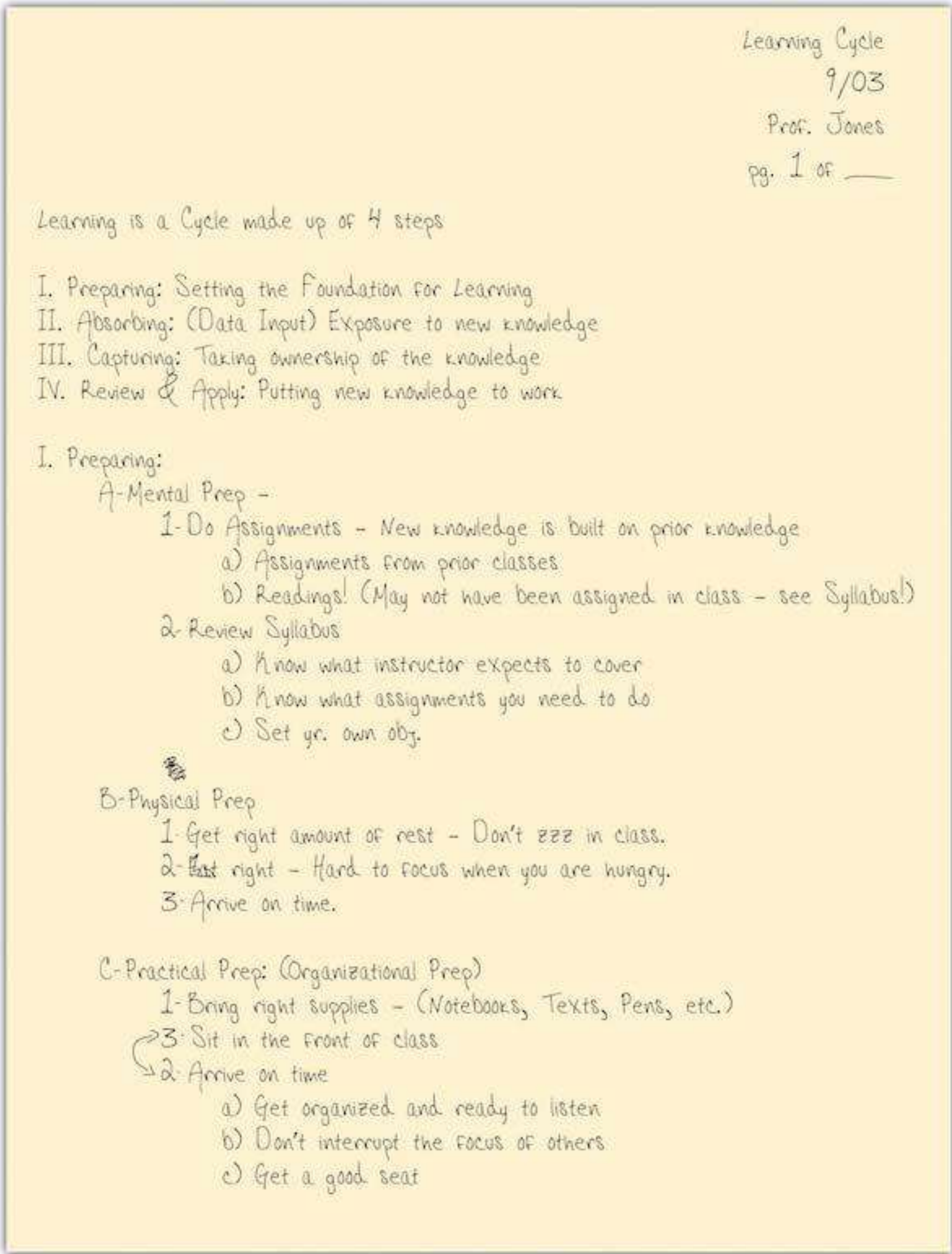
Outlining Method

According to *Success in College* (2019),

> The advantage of the outline method is that it allows you to prioritize the material. Key ideas are written to the left of the page, subordinate ideas are then indented, and details of the subordinate ideas can be indented further.
>
> ———————————————
>
> At first you may have trouble identifying when the instructor moves from one idea to another. This takes practice and experience with each instructor, so don't give up! In the early stages you should use your syllabus to determine what key ideas the instructor plans to present. Your reading assignments before class can also give you guidance in identifying the key ideas.
>
> If you're using your laptop computer for taking notes, a basic word processing application… is very effective. Format your document by selecting the outline format from the format bullets menu. Use the increase or decrease indent buttons to navigate the level of importance you want to give each item.
>
> ———————————————
>
> After class be sure to review your notes and then summarize the class in one or two short paragraphs using your own words. This summary will significantly affect your recall and will help you prepare for the next class.

Students sometimes have experience with outlining when they begin college: perhaps a high school teacher presented class materials in outline format, or writing assignments required development of an outline. Think about outlining in your past experience, either with writing assignments or note-taking. Considering the courses in which you are currently enrolled, use the space below to discuss in which of those courses you might try taking notes using the outline method. What do you know about the lectures or work in that class that makes you think outline note-taking would work?

Figure 2 on the next page presents an example of notes taken using the outlining method.



Learning Cycle
9/03
Prof. Jones
pg. 1 of ___

Learning is a Cycle made up of 4 steps

I. Preparing: Setting the Foundation for Learning
II. Absorbing: (Data Input) Exposure to new knowledge
III. Capturing: Taking ownership of the knowledge
IV. Review & Apply: Putting new knowledge to work

I. Preparing:
A-Mental Prep -
1-Do Assignments - New knowledge is built on prior knowledge
a) Assignments from prior classes
b) Readings! (May not have been assigned in class - see Syllabus!)
2-Review Syllabus
a) Know what instructor expects to cover
b) Know what assignments you need to do
c) Set yr. own obj.

B-Physical Prep
1-Get right amount of rest - Don't zzz in class.
2-Eat right - Hard to focus when you are hungry.
3-Arrive on time.

C-Practical Prep: (Organizational Prep)
1-Bring right supplies - (Notebooks, Texts, Pens, etc.)
3-Sit in the front of class
2-Arrive on time
a) Get organized and ready to listen
b) Don't interrupt the focus of others
c) Get a good seat

Figure 2: Example notes demonstrating the outline method (Success in College, 2019).

Mind-Mapping/Concept Mapping Method

Success in College (2019) describes the third method of taking notes we will study as one that is "very graphic" in nature:

> Concept maps harness your visual sense to understand complex material "at a glance." They also give you the flexibility to move from one idea to another and back easily (so they are helpful if your instructor moves freely through the material).

Figure 3 below introduces the mapping method of taking notes.

> To develop a concept map, start by using your syllabus to rank the ideas you will listen to by level of detail (from high-level or abstract ideas to detailed facts). Select an overriding idea (high level or abstract) from the instructor's lecture and place it in a circle in the middle of the page. Then create branches off that circle to record the more detailed information, creating additional limbs as you need them.

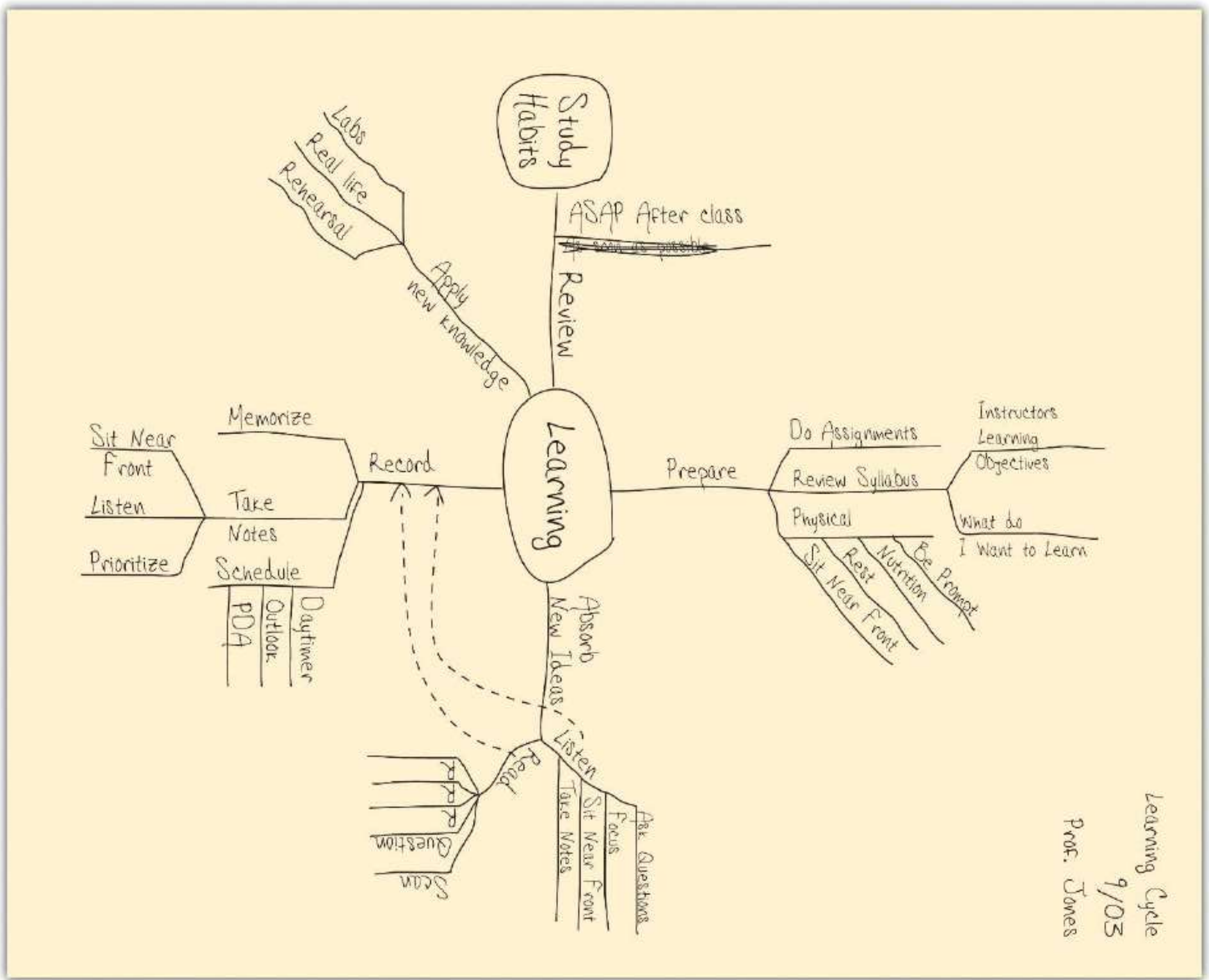


Figure 3: Example notes demonstrating the mapping method (Success in College, 2019).

Cornell Method

Finally, the fourth note-taking method to explore in this chapter includes an engineered structure that was developed at Cornell University a half-century ago. Rather than developing organically like the previous three methods, Cornell-style note-taking prescribes a format (see Figure 4) that is often recommended by lecturers for use by college students.

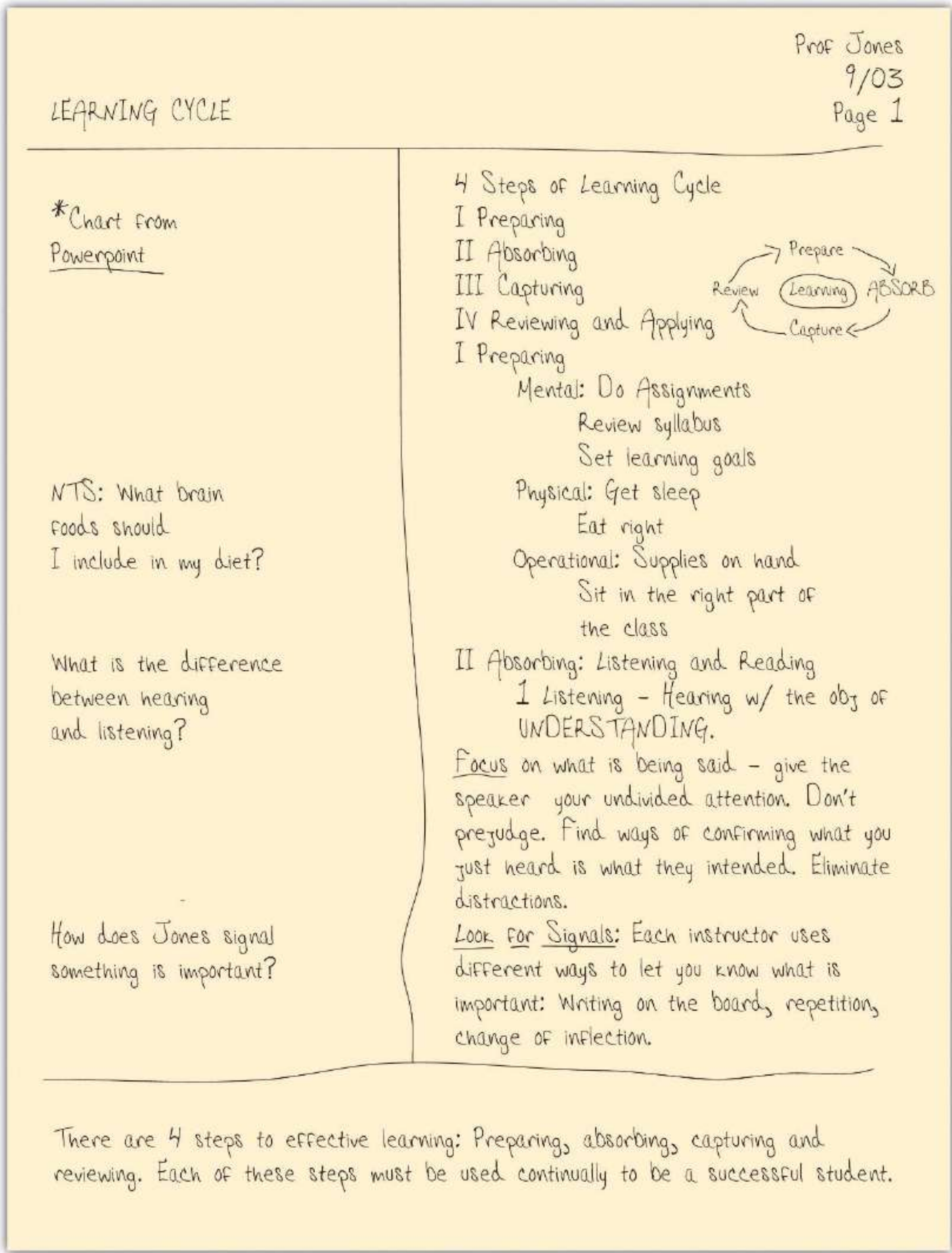


Figure 4: Example notes demonstrating the Cornell method (Success in College, 2019).

The Cornell method follows a very specific format that consists of four boxes: a header, two columns, and a footer.

The header is a small box across the top of the page. In it you write identification information like the course name and the date of the class. Underneath the header are two columns: a narrow one on the left (no more than one-third of the page) and a wide one on the right. The wide column, called the "notes" column, takes up most of the page and is used to capture your notes using any of the methods outlined earlier. The left column, known as the "cue" or "recall" column, is used to jot down main ideas, keywords, questions, clarifications, and other notes. It should be used both during the class and when reviewing your notes after class. Finally, use the box in the footer to write a summary of the class in your own words. This will help you make sense of your notes in the future and is a valuable tool to aid with recall and studying.

<u>A Final Thought from the Source</u>

> You will have noticed that all methods end with the same step: reviewing your notes as soon as possible after class. Any review of your notes is helpful (reading them, copying them into your computer, or even recasting them using another note-taking method). But THINK! Make your review of notes a thoughtful activity, not a mindless process. When you review your notes, think about questions you still have and determine how you will get the answers. (From the next class? Studying with a friend? Looking up material in your text or on the net?) Examine how the material applies to the course; make connections with notes from other class sessions, with material in your text, and with concepts covered in class discussions (Success in College, 2019).

Chapter Conclusion

College writers experience a transformation from being students who are told by teachers what to write down and recall from their study materials to adults who are largely responsible for their own advanced learning. While instructors employ various means of encouraging students to take notes in lectures, laboratories, and while conducting research, students must learn to develop their own study materials by taking useful, clear, and complete notes during all learning activities. Many variations of note-taking methods exist, and this chapter provides a cursory introduction to 4 of those methods. You are encouraged to try out all of the methods described here to determine your own best fit for setting up your success in understanding and recalling lessons. Finally, regardless of your ultimate choice of method(s), recognize that reviewing and summarizing your own notes early in the process is a significant key to success in the learning process.

Homework

Choose a lecture-based course you are taking now and use the Cornell method to take notes for one classroom session. Create a Cornell-style form to use in taking your class notes, and complete and submit a copy of your notes worksheet together with a post-class summary and a reflection memo about your experience.

Technical Writing Document Creation Assignment

Write and submit a summary and reflection memo comparing mind-mapping (or another of the methods discussed in this chapter) to the Cornell method. Discuss how the previous assignment and your other research inform your practice of notetaking.

Reference

Lardbucket.org (2012). Listening, taking notes, and remembering. In Schmitz, A. (Ed.), *Success in College*, V 1.0 (Chapter 4). License: CC-BY-NC-SA 3.0. Retrieved from https://2012books.lardbucket.org/books/success-in-college/

Maintaining a Productive Writing Schedule

Dawn Atkinson

Introducing the Chapter

This chapter aims to help you think carefully about procrastination and recognize what it means to maintain a productive writing schedule by considering how professional writers—"writers who exhibit recognized skill in [an area] coupled with an ability to earn part of all of their living by deploying that skill" (Atkinson, 2020, p. 481)—sustain momentum in their work. In addition, it discusses ideas for overcoming writing anxiety that you might apply to your own writing processes to improve satisfaction with your academic efforts.

Exploring Procrastination

Writing can be challenging, particularly when procrastination affects a writer's potential to proceed with a project in a productive way. *Procrastinating* means avoiding work on something that needs to be done. Although some writers may think about their writing projects and how to tackle them during the delays, procrastination for others can lead to rushed work with little time left for polishing before deadlines. In these instances, procrastination can contribute to substandard writing.

Complete the following personal inventory, which is adapted from Nissila (2016, pp. 38-41), to explore reasons for procrastination in college.

1. I am lazy when it comes to getting my academic work done.
    a. Most of the time
    b. Sometimes
    c. Rarely
    d. Never

2. I am disorganized when trying to complete my academic work.
    a. Most of the time
    b. Sometimes
    c. Rarely
    d. Never

3. I have difficulty saying *no* to others, which puts me behind in my academic work.
    a. Most of the time
    b. Sometimes
    c. Rarely
    d. Never

4. I feel that I will succumb to procrastination no matter what.
    a. Most of the time
    b. Sometimes
    c. Rarely
    d. Never

5. I don't think I have the organizational abilities to stop procrastinating.
    a. Most of the time
    b. Sometimes
    c. Rarely
    d. Never

6. I put off writing papers until the night before they are due.
    a. Most of the time
    b. Sometimes
    c. Rarely
    d. Never

7. I work best under pressure, so I think that procrastination is really good for me.
    a. Most of the time
    b. Sometimes
    c. Rarely
    d. Never

8. When what I have to study or accomplish is just not that important to me, I find it tempting to procrastinate.
    a. Most of the time
    b. Sometimes
    c. Rarely
    d. Never

9. I have a hard time convincing myself to maintain a positive attitude about avoiding procrastination.
    a. Most of the time
    b. Sometimes
    c. Rarely
    d. Never

10. I think I have more time to finish things than I usually do.
    a. Most of the time
    b. Sometimes
    c. Rarely
    d. Never

11. Some instructors assign too much homework and don't seem to understand that I have a life outside of school. I believe it's their fault that I have to procrastinate.
    a. Most of the time
    b. Sometimes
    c. Rarely
    d. Never

12. Spending time with my friends gets in the way of doing homework.
    a. Most of the time
    b. Sometimes
    c. Rarely
    d. Never

13. I can't seem to stay away from social media.
    a. Most of the time
    b. Sometimes
    c. Rarely
    d. Never

14. I get wrapped up in family matters and lose track of study time.
    a. Most of the time
    b. Sometimes
    c. Rarely
    d. Never

15. ____
    also causes me to procrastinate.
    a. Most of the time
    b. Sometimes
    c. Rarely
    d. Never

Taking into account your personal inventory responses, select your top five reasons for procrastinating and write them in the table below.

Reason	What I Can Do
1.	
2.	
3.	
4.	
5.	

Now read a handout entitled "Procrastination" (The Writing Center, University of North Carolina at Chapel Hill, 2019), which can be found at https://writingcenter.unc.edu/tips-and-tools/procrastination/. While reading, complete the table by listing ways to counter your reasons for procrastinating.

Which ideas do you plan to try? What challenges do you foresee in using these ideas? How will you meet the challenges?

Focusing on How Professional Writers Maintain Productive Writing Schedules

Professional writers work in a variety of different roles. Some earn the majority of their livings from writing novels, textbooks, and news articles, for example, while others do a great deal of writing in the workplace when preparing instructions, proposals, letters, memos, presentations, reports, emails, and journal articles.

Given the centrality of writing to the above-mentioned groups' livelihoods, they oftentimes develop self-regulation tactics to remain maximally productive during writing projects. To expound on this point, Kellogg (2008, pp. 12, 13) reported that interruptions during writing periods slow writing progression, leaving an author unable to focus intently on the processes necessary for composing effective sentences and paragraphs: planning what to say, committing thought to written form, and reviewing text already produced. We can infer from this finding that prolific authors minimize distractions to devote their full attention to writing tasks. Kellogg also found that prolific authors tend to develop, craft, and refine text over multiple sessions rather than trying to pen optimal pieces of work during one-off extended binges. He contended that the latter approach can result in anxiety, frustration, and fatigue (p. 18), undesirable outcomes for individuals whose successful job performance relies on their consistent capacity to deliver quality written text. As in cases of procrastination, binge writing can also lead to sub-standard work when an author has little time left to edit and revise before a deadline. Babin et al. (2017, p. 140) added that professional writers make writing a habit, a customary action in other words, rather than waiting for ephemeral moments of inspiration to inject momentum into their projects.

In research that focused on how two highly skilled writers composed different types of textbooks for English language teaching, Atkinson (2020) found that the authors used certain tactics to maintain productive writing schedules. One of the authors, for instance, intentionally wrote textbook content in the mornings because she felt most productive then (p. 497). She also composed textbook content for limited amounts of time each day to counter the negative effects of binge writing and writer's block (p. 497), defined as the inability to produce written text (Babin et al., 2017, p. 141). Both participants in the Atkinson (2020) study also purposefully used the writing process of incubating to maintain productivity and develop quality textbook content. *Incubating* refers to taking time away from writing with the aim of unconsciously solving a problem related to the writing project at hand (p. 490). This approach differs from procrastinating since incubating is deployed to solve problems rather than to delay work. The textbook authors both engaged in physical activity while incubating to encourage problem solving: one author rode his bike and played drums (p. 491), while the other went for walks (p. 496). The former also experienced the positive effects of incubating even when taking short drink breaks during writing episodes (p. 491). The research found that incubating enabled the writers to tackle problems unconsciously outside of composing sessions rather than during them when their mental resources were occupied with creating original textbook content (p. 496).

Taken together, the literature discussed here outlines practical self-management strategies that professional writers use to maintain productivity. What are your thoughts about these strategies? Can you envision them working for you? Why or why not?

Overcoming Writing Anxiety

To maintain a productive writing schedule, a writer must find ways to address anxiety about writing projects so that worry and fear do not evolve into the paralysis that characterizes writer's block. The previous section in this chapter mentioned tactics that professional writers use to manage the challenges associated with writing. The current section and the chapter conclusion, which are adapted from Babin et al. (2017, pp. 140-146), elaborate on what writing anxiety is and means for countering it.

What is Writing Anxiety and How Do You Know if You Have It?

Do you worry excessively about writing assignments? Do they make you feel uneasy or agitated? Do you have negative feelings about certain types of writing? If you answered *yes* to any of these questions, you might suffer from writing anxiety. *Writing anxiety* simply means that a writer experiences negative feelings about a given writing task. The last of the questions above points out something important about this condition that has been afflicting writers everywhere for centuries: writing anxiety is often more about the audience and/or purpose for a given writing task than it is about the mere act of writing itself.

Let us consider the situational nature of writing anxiety for a moment. Say you just bought a new pair of headphones. You brought them home, removed all the packaging, plugged them in, and they are amazing. So you decide to visit the company website, and you write a stellar review of the product that includes descriptive details about its comfortable fit, excellent sound quality, ability to cancel outside noise, and reasonable price.

The next day in biology class your instructor covers the topic of biomes, and you learn about animal habitats and biodiversity and the interrelation and interdependence of species within biomes. You find it fascinating and cannot wait to learn more. But then something terrible happens. Your instructor assigns a research paper on the subject. As your instructor begins to describe the length and other specifications for the paper, complete with formatting guidelines, citation requirements, and a reference list, your palms start to sweat, your stomach feels uneasy, and you begin to have trouble focusing on anything else your instructor has to say. You are experiencing writing anxiety.

Writing anxiety is the condition of feeling uneasy about writing. But your condition is not about the act of writing. Just yesterday you wrote a great review for those new headphones. So why do you suddenly feel paralyzed by the thought of writing the biology research paper? Let us consider some possible causes.

What Causes Writing Anxiety, and How Can It Be Thwarted?

The causes of writing anxiety are many. Here are just a few.

- Inexperience with the type of writing task
- Previous negative experiences with writing (e.g., someone, maybe a teacher, said negative things about your writing)
- Negative feelings about writing (e.g., “I’m not a good writer”; “I hate writing”)
- Immediate deadline
- Distant deadline

- Lack of interest in the topic
- Personal problems or life events

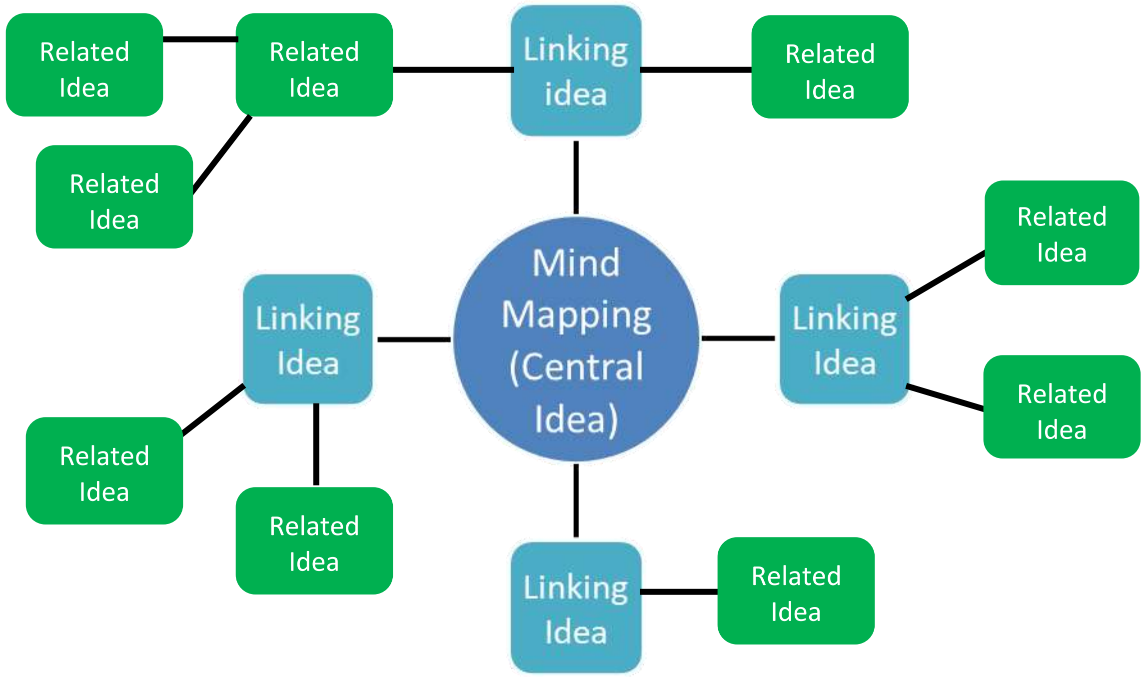
Level of experience may explain why you felt comfortable writing the headphone review while you break out in a sweat at the thought of the biology paper. If you have never written anything similar to a particular assignment, maybe you feel unsure about whether you can meet the assignment requirements or the teacher's expectations. Or maybe the last time you turned in a writing assignment, you received negative feedback or an unsatisfactory grade. Maybe you procrastinated most of the semester, and now the paper is due next week and you feel overwhelmed. Or maybe it is the second week of the semester and the finals week deadline seems so far away that you are not motivated to write.

Knowing the cause of your writing anxiety can help you move beyond it and start writing, even if you cannot completely eliminate your apprehension. If the topic does not interest you or if you are having problems at home, those probably are not issues that will just disappear, but if you try some of the following strategies, you may find that you can at least move forward with even the most anxiety-inducing writing assignments.

Just Start Writing

Half the battle with writing is just getting started. Try some of the following brainstorming strategies to help jumpstart this task.

> ***Mind mapping*** is a way to brainstorm by drawing connections between ideas. This technique is also referred to as clustering, tree diagramming, and spider diagramming. Create a mind map by following these steps.
>
> 1. Write the central idea you wish to focus in the center of a page or screen.
> 2. Circle the central idea.
> 3. Think of ideas that link to the central idea; write these around the central idea, and draw connecting lines from the central idea to the linking ideas.
> 4. Think of ideas that relate to the linking ideas and ultimately back to the central idea; write them around the linking ideas, and connect them to the linking ideas with lines.
>
> Here is an example of a mind map.



Notice that you can use color and type size to create organization and emphasis.

Listing involves making a list of ideas. You might decide to note down ideas related to your topic in a free-form manner. When using this approach, write down whatever you can think of that is relevant to the topic; you can always eliminate unnecessary material later. Your second option is to split your list into two columns: (1) what you know and (2) what you do not know but need to find out through research.

Outlining organizes ideas about a topic using a grouping or visual cuing system. A formal outline uses a numbering and indentation scheme to help organize ideas. Generally, you begin with your main point, then you list subtopics that pertain to or support the main point, and lastly you flesh out details underneath each subtopic. Each subtopic is lettered or numbered and has the same level of indentation. Details under each subtopic are given a different style of number or letter and are indented further to the right. The expectation is that each subtopic will merit at least two details. Here is an example of a formal outline.

I. Major Idea
    A. Supporting Idea
        i. Detail
        ii. Detail
    B. Supporting Idea
        i. Detail
        ii. Detail
        iii. Detail

Freewriting is a means of generating text by writing anything that comes to mind about a topic. To get your mind working, you might start with the prompt "What do I already know about this topic?" If you started with a list or an outline, you can also freewrite about each item. The following tips apply to freewriting.

- Write as much as you can, as quickly as you can.
- Do not edit or cross anything out. (Note: if you feel you must edit as you go, just write the correction and keep moving along. The aim is to record ideas on the page rather than search for the perfect word.)
- Keep writing or typing the whole time.
- Feel free to follow a tangent—you do not need to stay on topic or write in any order.
- Write a repeating phrase if you get stuck (e.g., "I don't know what to write") until your brain gets tired and you think of how to proceed.

Looping builds on freewriting by exploring many related ideas about a topic, sometimes in depth. Here are instructions for looping.

1. Set a timer for 5 or 10 minutes.
2. Freewrite until the timer sounds.
3. Read what you have written.
4. Circle or underline any text that needs to be fleshed out or that introduces new ideas.
5. Select one of the circled or underlined segments for your next loop.
6. Freewrite again for the same amount of time, using the idea you selected from the first freewrite.
7. Repeat until you feel you have covered the topic or are out of time.

Asking questions stimulates ideas for a paper's content by using probing queries, such as those listed below.

- Problem/Solution: What is the problem your writing is trying to solve? Who or what is part of the problem? What solutions can you think of? How could each solution be accomplished?
- Cause/Effect: What is the reason behind your topic? Why is it an issue? Conversely, what is the effect of your topic? Who will be affected by it?
- The five *W*s plus *so what*:

- Who: Who is involved? Who is affected?
- What: What is happening? What will happen? What should happen?
- Where: Where is it happening?
- When: When is it happening?
- Why/How: Why is this happening? How is it happening?
- So What: Why is the topic important? Why should readers care about it?

When beginning work on a paper, sometimes the biggest roadblock is thinking that the writing needs to be grammatically pristine and optimally organized right from the start. The strategies outlined in this section provide an alternative: they offer opportunities to express your raw ideas so that you can find ones to pursue further and save polishing until later.

Create Smaller Tasks and Short-Term Goals

One of the biggest barriers to writing can be that the task just seems too large, and perhaps the due date is weeks away. Each of these conditions can contribute to feelings of being overwhelmed or to the tendency to procrastinate. But the remedies are simple and will help you persist and work toward your deadline and a finished product: (1) divide large writing tasks into smaller, more manageable tasks, and (2) set intermediate deadlines.

Imagine you have a term paper that is assigned during week one of a 15-week term, and it is due during finals week. Make a list of all the tasks you can think of that need to be completed, from beginning to end, to accomplish the assignment requirements. List the tasks, and assign yourself due dates for each of them. Consider creating a detailed task breakdown like the one in Table 1, which includes a column for notes specific to the assignment.

Table 1. A detailed schedule for completing a semester-long writing project

Task	Complete By	Notes
Brainstorm topics and select one to focus on	Week 2: Wednesday	
Conduct initial research to learn about the topic, and develop a list of search terms for more in-depth research	Week 3: Friday	Ask the instructor to look over my search terms
Search library holdings and databases using search terms	Week 4: Friday	Ask a librarian for help with using databases
Read sources and take notes	Week 6: Friday	Consult the notetaking examples in my textbook
Create an outline, and begin writing the paper	Week 7: Monday	Try freewriting to generate ideas for the outline
Complete a draft of the paper	Week 8: Thursday	
Ask a classmate to read the draft and provide feedback	Week 8: Friday	Arrange this with a classmate the week before
Revise the paper based on feedback	Week 9: Thursday	
Meet with the instructor to ask questions about the draft	Week 10: Friday	Make a list of questions before the meeting
Do additional research if necessary	Week 11: Monday	
Revise the draft paper	Week 12: Wednesday	
Meet with a writing center tutor to go over the draft, and edit and revise it	Week 13: Friday	Contact the writing center the week before to arrange an appointment
Make sure the formatting, citations, and references are correct	Week 14: Wednesday	
Proofread the paper and make final revisions	Week 14: Friday	
Submit the paper	Week 15: Monday	

Creating and following a schedule, such as that outlined in Table 1, will help you divide a writing project into manageable tasks that can be completed in a timely way without becoming overwhelming.

Collaborate

Get support from a friend, family member, or classmate, and talk to a tutor in your college writing center about your ideas or organizational plan for your paper. Sometimes talking about your ideas is the best way to develop and expand them. Remember to take note on your conversation to avoid forgetting a useful idea. Classmates are also a great resource because they are studying the same subject as you, and they are working on the same assignments. Talk to them often, and form study groups. Ask them to look at your writing and give you feedback. In addition, set study group goals, and hold one another accountable for meeting deadlines.

Embrace Reality

Focus on the reality of your assignment.

- Focus on what you do best rather than worry about your perceived weaknesses.
- Acknowledge that writing can be difficult and that writing skills can be improved with effort and time.
- Recognize what might be new or unfamiliar about the type of writing that you are doing.
- Understand that confusion and frustration is a natural part of experiencing new things.
- Remember that you are a student and are supposed to be experiencing things that are unfamiliar (e.g., new genres, new formatting conventions, new citation and referencing styles, new audiences, new subject matter, and new approaches).

Seek Out Experienced Writers

If you can, find more experienced writers and ask them questions. Sometimes, this might be a friend or family member who has already taken college courses. Maybe it is a fellow student who has already taken the class you are in now. Also, the tutors in your college writing center can be a big help at any stage in the writing process. And do not forget to ask your instructor for suggestions or assistance.

Another way to learn from the experience of others is to look at examples of the types of writing you are doing. How is the piece organized? Does it use source material? What sort of tone does it use? If you do not know where to find examples, ask your instructor for help.

Consider Environmental Factors

Realize that some aspects of writing are not about the inner workings of your mind as a writer. Some factors that affect writing productivity are external. For example, *multitasking*, or switching between tasks, oftentimes lengthens the time required to finish tasks versus completing them one by one. So put away your phone and switch off other distractions like social media and the television. Find a quiet place to work where you will not be disturbed. And make sure you have everything you need as you get started: pens, pencils, sticky notes, highlighters, notebooks, textbooks, a computer, snacks, drinks, and whatever else you need to be productive and feel comfortable. Allot a set period of time to each task, and attend to each one separately.

Drawing the Chapter to an End

Hopefully the information and tips presented in this chapter will help you to make productive use of your time, to get started writing, and to sustain momentum. Try the various strategies outlined here, and if something does not work well, move on and try something else. Select the strategies that work best, and modify them to suit your needs.

Activity A: Considering Writing Obstacles and How to Overcome Them

This in-class activity, which is adapted from Babin et al. (2017, p. 146), asks you to spend three minutes listing instances when writing was difficult for you. Your list does not need to focus exclusively on times when you were writing for classes, although you should consider those occasions. Also consider other writing situations, such as scholarship or job applications, thank-you letters, or emails to coworkers or school officials. Afterwards, pick out one of the instances on your list and spend several more minutes considering what barriers or obstacles made it hard to write in that situation. Was it

- Inexperience with the type of writing?
- A previous negative experience with writing?
- An immediate deadline?
- A distant deadline?
- A lack of interest in the topic?
- Personal problems or challenges?
- Something else?

Discuss your list of writing obstacles with classmates in a small group. Then, as a group, try to identify some strategies or good writing practices discussed in this chapter that might have helped you overcome those obstacles. If class time allows for it, your group might share its ideas with the class.

Activity B: Constructing and Integrating In-Text Citations

To help build your confidence as a writer, this activity asks you to decide which of the items presented include acceptable APA in-text citations and integrate them correctly. Mark each box with a ✓ for acceptable or an **X** for unacceptable, paying particular attention to punctuation when making your decisions. Consult the in-text citation information in the "Reporting Research Outcomes" chapter of this textbook for help when completing this activity, and be prepared to discuss your responses and rationales for them in class.

	Items	✓	X
1	“In our increasingly technological and internationalized workplaces, communications skills are among the most sought-after competencies employers require of job candidates” (Last, 2019).		
2	“In our increasingly technological and internationalized workplaces, communications skills are among the most sought-after competencies employers require of job candidates” (Last, 2019, p. 1).		
3	“In our increasingly technological and internationalized workplaces, communications skills are among the most sought-after competencies employers require of job candidates (Last, 2019, p. 1).”		
4	According to textbook writer Last, “Every job posting you see will almost certainly ask for candidates with excellent communications skills and the ability to work effectively in teams” (Last, 2019, p. 1).		
5	According to textbook writer Last, “Every job posting you see will almost certainly ask for candidates with excellent communications skills and the ability to work effectively in teams” (2019, p. 1).		
6	According to textbook writer Last (2019), “Every job posting you see will almost certainly ask for candidates with excellent communications skills and the ability to work effectively in teams” (p. 1).		
7	According to textbook writer Suzan Last (2019), “Every job posting you see will almost certainly ask for candidates with excellent communications skills and the ability to work effectively in teams” (p. 1).		
8	“The ability to communicate clearly and effectively in written, verbal, and interpersonal contexts is vital for success and advancement in the workplace.” (Last, 2019, p. 1).		
9	“The ability to communicate clearly and effectively in written, verbal, and interpersonal contexts is vital for success and advancement in the workplace.” (Last, 2019, p. 1)		
10	“The ability to communicate clearly and effectively in written, verbal, and interpersonal contexts is vital for success and advancement in the workplace” (Last, 2019, p 1).		

Homework: Interviewing an Experienced Writer about Writing Processes

Identify a more experienced writer than yourself, such as a friend, family member, professor, adviser, writing tutor, career center director, work supervisor, work colleague, or someone who is employed in a career you are interested in. Interview that person about his or her writing processes, or ways of getting writing done. Afterwards, address the items listed below in a memo, and remember to cite and reference any outside sources of information that you use.

- Summarize the results of the interview by focusing only on main themes—do not give a play-by-play of who said what and in what order and who responded.
- Discuss how the interviewee's responses compare with your own writing processes.
- Identify any writing processes your interviewee uses that you want to try, and explain why. Alternatively, identify any writing processes your interviewee uses that you want to avoid, and explain why.

Consult the "Interviewing for Information" chapter of this textbook for help with preparing for and carrying out your interview and the "Writing Print Correspondence" chapter for guidance when writing and formatting your memo.

Remember to edit, revise, and proofread your memo before submitting it. The following handouts, "Temporal, Spatial & Directional Prepositions" (McNamee, 2019) and "Capitalization" (LaRoche, n.d.), may help in this regard.

TEMPORAL, SPATIAL & DIRECTIONAL PREPOSITIONS

Definition

In English, prepositions are words that identify roles and relationships within a sentence. Prepositions are used to communicate temporal, spatial, or directional relationships, and they can be concrete or abstract. Using the correct preposition in English is key to describing relationships accurately.

Temporal Prepositions

Prepositions that describe **points** in time are **at**, **in** and **on**.

On is used to determine days, **at** is used to express time of day, and **in** is used with parts of the day that are not defined by specific times, with months and years, and with the seasons.

For example:

We finished the research **at** 5 pm.

We finished the research **on** June 5.

We finished the research **in** the morning.

Prepositions that express **lengths** of time are: **since, for, by, from, and during.**

For example:

We have been doing this research **since** the start of the semester.

We have been doing this research **for** three months.

We plan to finish this research **by** June 5.

We planned to research from fall **to** spring.

We will complete this research **during** the spring semester.

Spatial Prepositions

Spatial prepositions include **at**, **in**, and **on**; these prepositions relate directly to the point that is being described.

At can be used to describe a vicinity, **on** describes a surface and **in** describes an area that is restricted to boundaries.

For example:

We did our research **at** the library.

We did our research **on** campus.

We did our research **in** the lab.

Abstract uses of these prepositions can also be used and the same rules should apply.

For example:

This is groundbreaking research **in** the engineering field.

Locational prepositions can also express proximity; prepositions that determine proximity include **over**, **under**, **between**, **near**, **around**, **within**, and **above**. They can also be abstract.

For example:

This research happens **under** the supervision of an advisor.

We found the answers **between** two data points.

The data is **within** the range that we expected.

Our office is **near** the lab, but not next to it.

Directional Prepositions

Directional prepositions express the movement of a noun. These include **to**, **through**, **from** and **toward**.

To is used to express approaching something, and it can be abstract—a person having something done "to" them is still directional.

For example,

I am going **to** the lab.

We gave the results **to** our advisor.

Through describes movement between two points that is linear.

For example:

We had to get **through** the literature review before we began our methodology.

From is used to express the concept of starting at a specified point.

For example:

We had to start **from** these findings in order to get our best results.

Toward is also an approach like "to" but can be temporal as it means the noun has not reached a specified point yet.

For example:

We are working **toward** a better research method but have not achieved it yet.

Yuba College Writing & Language Development Center

cAPitaLIZatiOn

Here are some common guidelines for capitalization. If you have a question about a word that doesn't fit one of these rules, check a dictionary to see if the word is capitalized there.

Capitalize the first letter in every sentence:

> *When we arrive, we can check the train schedule.*

Capitalize the pronoun *I*:

> *The last time **I** saw him we had lunch together.*

Capitalize proper nouns (*specific* people, places, organizations, and sometimes things):

Amelia Earhart	*Redding, California*	*Yosemite*
Mothers Against Drunk Driving	*House of Representatives*	*Brooklyn Bridge*
Golden State Freeway	*Lundberg Family Farms*	*Yuba College*

However, notice that short prepositions such as *of* are not capitalized even in proper nouns and titles.

Capitalize directions that are names of regions:

> *George and Barbara live in the **N**ortheast.*

However, don't capitalize simple directions that are not names of regions, as in *The lake is thirty miles northeast of here.*

Capitalize days of the week, months of the year, and holidays. Only capitalize seasons if they are part of a title:

Monday	*Memorial Day*
May	*Spring 2020 semester*

Don't capitalize simple seasons, like spring, summer, fall, or winter.

Capitalize names of countries, nationalities, languages, and religions:

El Salvador	*Punjabi*
Canadians	*Catholicism*

Capitalize major words in the titles of books, articles, and songs (but not short prepositions, conjunctions, or articles unless they are the first word):

The Winter of Our Discontent	"Politics and the English Language"
Of Mice and Men	"The Morning After"

Capitalize members of national, political, racial, social, civic, and athletic groups:

***L**ebanese*	***A**frican **A**mericans*	***R**otarians*
***L**ibertarians*	***D**aughter of the **A**merican **R**evolution*	***D**odgers*

Capitalize periods and historical events:

***A**ge of **E**xploration*
***G**reat **D**epression*

However, don't capitalize century numbers like *the sixteenth century*.

Contributed by Alex LaRoche

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Working with Feedback

Stacey Corbitt

Chapter Overview

Whether they are new and learning or well-experienced and still learning, writers agree: receiving feedback from an interested reader is generally beneficial. Additionally, those same writers often find that they directly benefit their own reading and writing processes by providing review and offering feedback for others. In college courses, feedback may be provided by classmates, peer tutors, and of course by instructors. This chapter aims to explain how writers benefit through various aspects of text review, whether they are providing feedback on another's work or receiving comments on their own work. From the perspective of learning to help a peer improve their writing, students will learn to provide and receive constructive feedback in ways that foster careful revision and reflection.

Participating in Peer Review

The most important thing to do as a reviewer is to prepare. Preparation in this case means to understand what is being asked of you as a reviewer. A good understanding necessarily requires you to ask questions of the writer as you prepare for a review; during the review process; and after you give feedback.

A document's effectiveness relies upon the writer's ability to identify and meet the needs and expectations of the document's *audience*. A reviewer must understand who makes up that audience. The short answer to the question posed above, then, is *by reviewing the document from the point of view of its intended audience* while recognizing the *purpose* of the document and the *context* in which it will be used.

<u>Reviewers as Members of the Audience</u>

Ideally, you will be able to represent an audience of a writer's peers when you participate in peer review of a document: in other words, students who are asked to write for an audience of their peers will generally conduct peer-to-peer reviews and offer feedback to each other. However, in some instances assignments will identify a specific audience <u>other than</u> one's peers. In that case, you should discuss with the writer who the intended audience will be so you can review from the audience's perspective. Regardless of the situation, the only way to make a mistake in this case is to make assumptions about the audience without discussing the audience with the writer – so, be sure to have that discussion before offering feedback. A good place to begin the discussion is to simply ask the writer

- Who do imagine your audience to be?
- What do they know about your topic? What *don't* they know?
- How do they feel about the arguments you are making?

Other Questions to Ask of the Writer Using a "What, Why, and How" Approach

As you prepare to conduct a review for your peer writer, it will help to ask additional questions about the writer's *purpose* and the *context* in which he or she is writing. One way to think about this discussion is to ask *what/why/how* questions: for example,

- *What* is your purpose for writing this document?
- *What* do you want to persuade the audience to do, think, believe, or feel?
- *Why* do you think this topic is important, interesting, or significant?
- *How* does your writing attempt to influence the reader?

What to Avoid During Review

In addition to the warning above not to make assumptions about the audience, purpose, or context of the document, it is important to understand what the writer is asking you to provide in terms of feedback. While some peer reviewers find it easy to concentrate on sentence-level editing matters like grammar and mechanical errors, often those issues should be left for proofreading reviews much later in the document development process. Focus instead on setting the stage for a helpful discussion with the writer based on feedback about the document's effectiveness in reaching the audience and accomplishing its intended purpose.

How can a reviewer suggest ways to improve document effectiveness?

After you have asked the important questions and feel adequately prepared to begin a review, make sure your understanding of the peer review process is complete.

- Have you been asked, for example, to provide a manually marked-up paper copy of the document after reading it one or more times?
- Are you exchanging electronic copies of documents and using MS-Word or another software to provide comments?
- How many different opportunities will you have to review and comment on this draft document?

This textbook has introduced the concept of *sandwiching* material in your documents. For example, you have learned about placing illustrations between introductory text and following text: in other words, *sandwiching* illustrations between sections of text. Similarly, comments and suggestions about a piece of writing may be most effective when the reviewer sandwiches them in the same way.

Consider the way you receive comments and criticism: how might you respond to each of the following examples of feedback? Assume you received the following comments on a draft assignment from an instructor or a peer, and describe your reaction in the space provided:

1. **Reviewer A comments:**
   Lots of comma errors (too many to mark) and also you need to fix your in-text citations. Not sure what you want to say in the second part. Good start on intro and works cited.

2. **Reviewer B comments:**
   Your intro gets my attention and the thesis statement is clear and obvious. In the section under header "What this Means for the Future," are you referring to XYZ from the first section? Try more specific wording in the header (*this* is a vague word). You're doing great getting draft in-text citations where they are needed; and building the reference list as you go is a smart idea.

Your own reactions to the two examples provided may help you to see the value of being positive in your comments as a reviewer.

1. The first example (Reviewer A) represents what many reviewers may write when they are inexperienced, inattentive, or in a hurry. The comments are broad, vague, and include a half-hearted attempt to be positive that appears to be an afterthought in the last sentence. The reviewer tagged errors in a general way, which may result in confusion if the writer requested content-based feedback rather than proofreading.

2. The second example (Reviewer B) makes no mention of the proofreading-level errors: those can be addressed on a later draft. The reviewer employs a sandwiching technique by offering a positive comment to begin and another one to end the feedback, sandwiching the criticism in the middle, thereby making the entire passage more appealing to the writer. This review is specific about what section a suggestion is about and uses questioning to encourage the writer to think about revising.

Moving from Vague to Specific Comments

Students are sometimes painfully aware of how damaging a poorly-structured review can be to a writer who is inexperienced, self-conscious, and otherwise unprepared for criticism of their writing efforts. Such an awareness may cause student reviewers to be unwilling to offer specific criticism on their peers' writing – even if it may be warranted. In other words, students may participate in peer reviews of one another's writing reluctantly, which results in ineffective and frustrating comments that are of little use to either party. One way to vastly improve the value of your comments is to watch for – and revise – vague wording.

Activity: Is your help helpful?

Consider each of the vague comments provided in the column on the left. Work with a classmate or on your own to write more useful specific feedback in the space to the right of each example. Be prepared to discuss your revisions and impressions in class.

Vague comments	Specific, more constructive comments
Hard to read (referring to a paragraph with long, complex sentences)	
Looks good to me (referring to reader-friendly document organization, and useful transitions)	
Seems a little short (referring to an underdeveloped explanation for something)	
I don't agree (referring to a lack of examples – or evidence – to convince the reader of the writer's point)	
Too many quotations (referring to the content of a paragraph)	
Limited reading (referring to an argumentative paper that cites only one source)	

How does working with feedback improve grades?

Keeping in mind that working with feedback encompasses both providing reviews and receiving them, consider the following advantages afforded to students who actively participate in peer reviews, both as reviewers and as authors:

- <u>Better compliance with assignment guidelines</u>: Peer reviews necessarily involve careful comparison of draft documents with the specifications for an assignment, giving both parties opportunities to take a fresh look at assignment instructions to be sure their writing meets requirements.

- <u>Improved style</u>: Students report that reading and discussing work by their peers can help identify ways to be more clear and concise in their own documents. Additionally, peer comments and questions assist writers who may not know they have developed troublesome habits.

- <u>Careful use of referencing system</u>: Comparing one's acknowledgment of sources in terms of frequency and accuracy to that of one's peers may lead writers to review their own drafts more critically in order to improve their own use of citations and references.

- <u>Practice with editing</u>: Students may read their own drafts multiple times, creating a situation where they become desensitized to errors and weak construction in their own writing. Reviewing the work of a peer can refresh a student's critical eye by providing opportunities to practice suggesting revisions and pointing out errors.

<u>Peer Reviewing Fosters Trust</u>

Writing is one of the most personal activities a person may engage in during college. Students who are unsure of their writing skills feel even more vulnerable when peers or instructors read and critique their rough drafts. Students who have some confidence in their writing may be frustrated or confused by comments and questions from peers for whom giving feedback may be unfamiliar territory. For feedback to be beneficial to your writing efforts, it must be given and received in the spirit of shared experience. When all parties involved in a peer review and commenting activity approach the task with respect for each other's efforts and an openness to cooperation, trust in the process can develop and lead to greater learning opportunities.

<u>Peer Review Prepares Students for Collaboration</u>

Engineers and other technical professionals frequently find themselves working on projects as part of a team. Project team members plan, execute, and report on their work in *collaboration* with one another, so developing trust in peers while working on projects in college is critical to your ability to include collaboration among your professional-level skills.

Chapter Conclusion

This chapter approaches working with feedback on writing from the perspective of being a reviewer. As students engage in peer review activities, they develop an understanding of the responsibility one accepts when committed to giving feedback that is positive, clear, helpful, and cooperative. By examining the role an audience plays in the success of a document, students can provide useful, constructive feedback to peer writers; and by critically reviewing a document and commenting thoughtfully, student writers can better develop their own skills and confidence.

Homework

1. Read the article "Giving feedback on others' writing" by Chris Watling and Lorelei Lingard (2019) presented on the next pages of this chapter.
2. Discuss your understanding and impressions of the article with a classmate, and take notes during your discussion.
3. Draft a memo explaining what you think are the three most important rules for providing feedback, specifically addressing the difference between giving feedback and *editing*. Use in-text citation and APA reference list entries for all sources you consult, including the article provided.
4. Exchange draft memos with one or more classmates and provide written feedback (do not edit your peers' work).
5. Submit the draft containing your peer reviewers' comments as directed by your instructor.

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THE WRITER'S CRAFT

Giving feedback on others' writing

Chris Watling[1] · Lorelei Lingard[1]

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In the Writer's Craft section we offer simple tips to improve your writing in one of three areas: Energy, Clarity and Persuasiveness. Each entry focuses on a key writing feature or strategy, illustrates how it commonly goes wrong, teaches the grammatical underpinnings necessary to understand it and offers suggestions to wield it effectively. We encourage readers to share comments on or suggestions for this section on Twitter, using the hashtag: #how'syourwriting?

Recently, a medical educator colleague of ours did a remarkable thing. In an effort to illuminate coaching practices for fellow medical teachers, he called upon his experience as a musician, staging a live cello master class and featuring himself as the learner. He's already a fine musician, but his coach wanted him to bring some emotional depth to his playing—a quality in the performances of great musicians that we might be inclined to think of as intangible, even unteachable. But she did not simply tell him to play with more emotion. Instead, she talked about the pressure on the bow, the arc of the bow stroke, the movement of his body, the position of the bow on the strings, and the way he handled tempo and dynamics. She deconstructed 'emotion' into its component technical parts, and our colleague's playing transformed in front of our eyes.

While this master class was about music, it mirrored the challenge and the joy of giving others feedback on their writing. Most of us not only write, but also read, edit, critique, and support the writing of students or colleagues. Handled poorly, feedback on writing can be confusing, unhelpful, and even discouraging. But handled well, feedback on writing—like feedback on cello playing—has the power to transform.

Ideally, feedback should feel like a conversation between reader and writer. To achieve this, it helps to establish what the conversation is going to be about. Writers should make focused requests of their readers, such as 'I'd like to know if my Problem/Gap/Hook is clear in the opening paragraph' or 'I'm wondering if my paragraph transitions are working' or 'I'm concerned the discussion just repeats the results but I'm not sure how to fix it'. When writers don't make specific requests, readers should ask for direction: 'What would you like me to focus on? Logic of the argument? Sentence and paragraph construction? Success with achieving a particular tone?' If writer and reader are not sure what to focus on, consider attending first to story, then to structure, and finally to style as a way of organizing the feedback [1].

Even with focused requests for feedback, readers will almost certainly notice other aspects of the writing that need strengthening. Remember, though, writers can only absorb so much feedback at once. Maintain your focus on a few areas and just note other issues to be addressed later. For instance, if you see that a writer struggles to use commas appropriately, flag one or two in the draft and add a comment box that says you will address this grammar issue later. Or, if the tone of the writing is too casual for a research manuscript, mention that this is something to discuss a few drafts further along. Put a pin in the issue, without overwhelming the writer with too much feedback at once.

Agreeing on a feedback focus is necessary but not sufficient for success. In addition, your actual comments on the writing need to be specific in order to be actionable. This can be quite tricky. Many readers possess good instincts for when something is wrong with the writing and know how to fix it themselves. But many also lack the vocabulary and knowledge to *name* the problem and *explain* the fix. Lacking this, readers default to offering generic comments ('awkward', 'unclear' and 'vague' are favourites) or fixing the problem without commenting at all. Neither approach helps the writer to diagnose and solve their recurring writing weaknesses.

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What is the reader who is not a writing expert to do? First, name the problems you can. For instance, instead of scribbling 'confusing' beside a paragraph, remind the writer about paragraph structure: 'A paragraph needs an opening topic sentence to orient the reader to its main idea, and that idea should develop as the paragraph unfolds. I think either your topic sentence is missing, or it's the wrong topic sentence for this paragraph, or the paragraph just includes too many ideas'. Second, when your instinct tells you something isn't working but you can't say why, just say so. For instance, many writers create long, meandering sentences that lose the reader, but you might not know exactly what's gone grammatically wrong. In such cases, share your reading experience: 'This very long sentence lost me about here. You could try breaking it into 2 or 3 sentences or using stronger punctuation to help the reader follow the relationships between these ideas'.

Comments like these remind us that giving feedback on someone's work and editing someone's work are two different tasks. When offering feedback, try to resist the urge to simply rewrite. Think about making comments for consideration, rather than making changes that the writer can simply accept. Rampant use of the 'track changes' function in Word may reduce the likelihood of the writer really engaging with the feedback. Sometimes all a writer is looking for is some careful copy editing. But if they've asked for feedback, provide it in a way that they can really engage with the process. If a writer's paragraph is unconvincing, for example, try something like: 'This key paragraph isn't as compelling as it could be. The problem may be that you have used a lot of 'to be' verbs. Try replacing a few of them with stronger, action-oriented verbs to better command the reader's attention'. There's a much greater chance the writer will be able to use your feedback in other situations if you highlight concerns, offer possible diagnoses, articulate an option or two for improvement, and provide a rationale for your suggestions.

Although mere rewriting can be dispiriting, a demonstration of how your feedback can be put to work can be powerful. Therefore, aim for a balance of telling and showing in your feedback. If you use a rewrite to show how a passage may be strengthened, couple your edits with an explanatory note. For example, because parallel structure is an effective device for strengthening the impact of writing, you might wordsmith a paragraph to inject a dose of parallelism. Nothing wrong with that—but the rewrite is much more effective as feedback if accompanied by a comment that explains 'I've tried to create a parallel structure here by matching the grammatical construction of the first three sentences; I think this change makes the ideas more persuasive'.

Remember that writing—even academic writing—can be deeply personal. Feedback on writing, therefore, is a delicate business; a critique of writing as product can easily be misinterpreted as a critique of writer as person. When feedback threatens self-esteem or stirs strong emotions, it becomes very challenging for individuals to process and integrate, even if it is accurate and potentially useful [2, 3]. Advice about feedback typically encourages us to focus on the task rather than on the individual in order to defuse threats to self-esteem and mitigate negative emotion [4]. But because the task of writing is not emotionally neutral, this feat may be easier said than done. Acknowledging this challenge honestly may be helpful. Focusing on the experience of the reader also helps; for example, instead of saying 'Your use of jargon is confusing', consider instead 'I'm worried that some readers may not understand these terms—perhaps a definition would help here'.

A little praise doesn't hurt either. Look for strengths and successes to point out to the writer, like 'what a powerful verb!', 'lovely turn of phrase here', 'strong transitions between these paragraphs', or 'nice job balancing a formal research tone with more conversational moments'. Such feedback reinforces good practice and bolsters confidence, and we all need our writing confidence bolstered! When you are working closely with a writer and seeing multiple drafts, you have the opportunity to comment specifically on improvements from past drafts. This signals to the writer that her efforts to change were worth it, that she is gaining expertise, and that pleasing you is not a random event. We say the last only partly tongue-in-cheek, because we know that writers may perceive contradictions in multiple rounds of feedback on their writing. Sometimes, as the drafts evolve, we readers change our minds. This is okay; in fact it can be very instructive for writers if the reasoning is explicit. After all, successful writing is a craft, not a recipe. In this spirit, we have found ourselves writing comments that admit, 'I know I suggested to try this new organization, but I don't think it's working. The logic seems to fall apart. I propose we go back to the earlier structure but put more emphasis on explicit signposting to make it easier for readers to follow'.

Writing feedback is a powerful tool. Use it consciously, and with care. At the end of our colleague's cello master class, one of the audience members asked the teacher about her philosophy when giving feedback to musicians. She thought for a moment, then said 'You must be sure that you don't kill the joy'. Writing, like playing music, can be technical and frustrating. But it can also be joyous, and supporting writers to find that joy may be the key to sustaining their engagement in the challenging craft of writing.

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Understanding Disciplinary Expectations for Writing

Dawn Atkinson

Chapter Overview

As a college student, you will likely be exposed to various *disciplines*, or fields of study, as you take a range of courses to complete your academic qualification. This situation presents an opportunity to diversify your knowledge and skill sets as you engage with ideas, theories, texts, genres, writing conventions, and even referencing and formatting styles that may differ from what you are already familiar with. Furthermore, as your courses become more specialized, your instructors will probably insist that your writing reflect the disciplinary expectations of your field. The ability to produce texts in line with disciplinary requirements is a mark of professionalism that will serve you well as you enter the workplace.

Although this chapter cannot outline the disciplinary expectations for writing in every field, it can encourage you to explore what texts are written in your field of interest and how they are composed. The understanding that different disciplines have different expectations for writing is a crucial first step in this discovery process.

Making Disciplinary Connections between Academic and Professional Work

To initiate your exploration of disciplinary expectations for writing, read the following text, adapted from Stanford and Jory's (2016) chapter entitled "So You Wanna Be an Engineer, a Welder, a Teacher? Academic Disciplines and Professional Literacies." The authors are faculty in the Department of English, Linguistics and Writing Studies at Salt Lake Community College. Think about your responses to the text as you read.

> Many people today arrive at college because they feel it's necessary. Some arrive immediately after high school, thinking that college seems like the obvious next step. Others arrive after years in the workforce, knowing college provides the credentials needed to advance their careers. And still others show up because college is a change, providing a way out of less than desirable life conditions.
>
> We understand this tendency to view college as a necessary part of contemporary life. We did too as students. And now that we're teachers, we still believe it's necessary because we know it opens doors and grants access to new places, people, and ideas. And these things present opportunities for personal and professional growth. We hear about these opportunities every day when talking with our students.
>
> But viewing college simply as a necessity can lead to a troublesome way of thinking about what it means to be a student. Because so many students today may feel like they must go to college, their time at school may feel like part of the daily grind. They may feel like they have to go to school to take classes; they may feel like they are only taking classes to get credit; and they may feel like the credit only matters because it earns the degree that leads to more opportunity. When students carry the added pressure of feeling like they must earn high grades to be successful learners and eventually professionals

(we don't think this is necessarily true, by the way), the college experience can be downright stressful. All of these things can lead students to feel like they should get through school as quickly as possible so they can get a job and begin their lives.

Regardless of why you find yourself enrolled in college courses, we want to let you know that there are productive ways to approach your work as a student in college, and we argue they will pay off in the long run.

Students who see formal schooling as more than a means to an end will likely have a more positive academic experience. The savviest students will see the connections between disciplines, literacy development, professionalism, and their chosen career path. These students will have the opportunity to use their time in school to transform themselves into professionals in their chosen fields. They will know how to make this transformation happen and where to go to do it. They'll understand that disciplinary and professional language matters and will view school as a time to acquire new language and participate in new communities that will help them meet their goals beyond the classroom. This transformation begins with an understanding of how the language and literacy practices within your field of study, your discipline, will transfer to your life as a professional.

Even students who are unsure about what to study or which professions they may find interesting can use their time spent in school to discover possibilities. While taking classes, for instance, they might pay attention to the practices, ideas, and general ways of thinking about the world represented in their class lectures, readings, and other materials, and they can consider the ways that these disciplinary values intersect with their own life goals and interests.

UNDERSTANDING DISCIPLINARITY IN THE PROFESSIONS

When you come to college, you are not just coming to a place that grants degrees. When you go to class, you're not only learning skills and subject matter; you are also learning about an academic discipline and acquiring disciplinary knowledge. In fact, you're entering into a network of disciplines (e.g., engineering, English, and computer science), and in this network, knowledge is produced that filters into the world, and in particular, into professional industries. An academic discipline is defined as a field of knowledge within the university system with distinct problems and assumptions, methodologies, and ways of communicating information.[1] (Think, for instance, about how scientists view the world and conduct their studies of things in the world in ways different than historians do.)

Entering into a discipline requires us to become literate in the discipline's language and practice. If membership in a disciplinary community is what we're after, we must learn to both "talk the talk" and "walk the walk." At its foundation, disciplinarity is developed and supported through language—through what we say to those within a disciplinary community and to those outside of the community. Students begin to develop as members of a disciplinary community when they learn to communicate with the discipline's common symbols and genres, when they learn to "talk the talk." In addition, students must also learn the common practices and ways of thinking of the disciplinary community in order to "walk the walk."

The great part of being a student is that you have an opportunity to learn about many disciplinary communities, languages, and practices, and savvy students can leverage the knowledge and relationships they develop in school into professional contexts. When we leave our degree programs, we hope to go on the job with a disciplined mind—a disposition toward the world and our work that is informed by the knowledge, language, and practices of a discipline.

Do you ever wonder why nearly every job calls for people who are critical thinkers and have good written communication skills? Underlying this call is an interest in disciplined ways of thinking and communicating. Therefore, using schooling to acquire the knowledge and language of a discipline will afford an individual with ways of thinking, reading, writing, and speaking that will be useful in the professional world.[2] The professions extend from disciplines and in turn, disciplines become informed by the professionals working out in the world. In nursing, for example, academic instructors of nursing teach nursing students the knowledge, language, and practices of nursing. Trained nurses then go out to work in the world with their disciplined minds to guide them. At the same time, nurses working out in the world will meet new challenges that they must work through, which will eventually circle back to inform the discipline of nursing and what academic instructors of nursing teach in their classrooms.

It is important to realize that not all college professors and courses will "frame" teaching and learning in terms of disciplinarity or professionalism, even though it informs almost everything that happens in any classroom. As a result, it may be difficult to see the forest for the trees. Courses can become nothing more than a series of lectures, quizzes, assignments, activities, readings, and homework, and there may be few identifiable connections among these things. Therefore, students who are using school to mindfully transform into professionals will build into their academic lives periodic reflections in which they consider their disciplines and the ways they're being trained in disciplinary thinking. They might stop to ask themselves: What have I just learned about being a nurse? About thinking like a nurse? About the language of nursing? This reflection may happen at various times throughout individual courses, after you complete a course, or at the end of completing a series of courses in a particular discipline. And don't ever underestimate the value of forming relationships with your professors. They're insiders in the discipline and profession and can provide great mentorship.

Okay, okay. Be more mindful of your education so that you acquire disciplinary and professional literacies. You get it. But what can you do—where can you look specifically—to start developing these literacies? There are many possible responses, but as writing teachers we will say this: Follow your discipline's and profession's texts. In these texts—and around them—is where literacy happens. It's where you're expected to demonstrate you can read and write (and think and act) like a professional.

PROFESSIONAL LITERACY: READING AND WRITING LIKE A PROFESSIONAL

So you wanna be a teacher, a welder, an engineer? Something else? It doesn't matter what profession you're interested in. One thing that holds true across all professions is that, although the types of reading and writing will differ, you'll spend a great deal of time reading and writing. Your ability to apply, demonstrate, and develop your reading and writing practices in school and then on the job will contribute greatly to your success as a professional.

You may be thinking, "I'm going to be a culinary artist and want to open a bakery. Culinary artists and bakers don't have to know how to read and write, or at least not in the ways we're learning to read and write in school." While you may not write many academic essays after college, we can confidently say that you will be reading and writing no matter your job because modern businesses and organizations—whether large corporations or mom-and-pop startups—are built and sustained through reading and writing. When we say reading and writing builds and sustains organizations we mean that they produce all the things necessary to run organizations—every day. Reading and writing reflect and produce the ideas that drive business; they record and document productivity and work to be completed; they enable the production and delivery of an organization's products and services; they create policies and procedures that dictate acceptable behaviors and actions; and perhaps most importantly, they bring individuals into relationships with one another and shape the way these people perceive themselves and others as members of an organization.

As a professional, you will encounter a variety of texts; you will be expected to read and respond appropriately to texts and to follow best practices when producing your own. This holds true whether you aspire to be a mechanic, welder, teacher, nurse, occupational health and safety specialist, computer programmer, or engineer. If you bring your disciplined mind to these reading and writing tasks, you will likely have more success navigating the tasks and challenges you meet on a daily basis.

CONCLUSION

We hope this reading can transform the way you understand the discipline-specific ways of reading, writing, thinking, and using language that you encounter in all your college courses—even if these ways are not always brought to the forefront by your instructors. We might think of college courses as opportunities to begin acquiring disciplinary literacy and professional reading and writing practices that facilitate our transformation into the professionals we want to become. Said another way, if language is a demonstration of how we think and who we are, then we want to be sure we're using it to the best of our ability to pursue our professional goals and interests in the 21st Century.

Endnotes

1. The term "discipline" refers to both a system of knowledge and a practice. The word "discipline" stems from the Greek word *didasko* (teach) and the Latin word *disco* (learn). In Middle English, the word "discipline" referred to the branches of knowledge, especially medicine, law, and theology. Shumway and Messer-Davidow, historians of disciplinarity, explain that during this time "discipline" also referred to "the 'rule' of monasteries and later to the methods of training used in armies and schools." So the conceptualization of "discipline" as both a system of knowledge and as a kind of self-mastery or practice has been around for quite some time. In the 19th century, our modern definition of "discipline" emerged out of the many scientific societies, divisions, and specializations that occurred over time during the 17th and 18th centuries. Our modern conception of disciplinarity frames it not only as a collection of knowledge but also as the social practices that operate within a disciplinary community.

2. The basic relationship between disciplines and professions is that disciplines create knowledge and professions apply it. Each discipline comes with a particular way of thinking about the world and particular ways of communicating ideas. An experienced mathematician, for example, will have ways of thinking and using language that are distinct from those of an experienced historian. The professions outside of institutions of higher education also come with particular

ways of thinking and communicating, which are often informed by related academic disciplines. So an experienced electrician will have ways of thinking and using language that are different from those of an experienced social worker. Both the electrician and the social worker could have learned these ways of thinking and using language within a discipline in a formal school setting, although formal schooling is not the only place to learn these ways of thinking and communicating.

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Having read Stanford and Jory's text, now work in small groups to answer the following questions about it. Be prepared to discuss your answers in class.

What are your reactions to the text?

How does the text compare with your own ideas about college and professional work?

What differences do you notice between the text and the writing advice given in this textbook?

How might the differences be attributable to varying disciplinary conventions?

Using a Writing Sample to Explore Disciplinary Expectations

Journal articles, peer-reviewed reports of research studies, are expected to follow the conventions for writing in specific fields. Thus, they are useful artifacts for study when trying to identify disciplinary expectations.

To gain insight into disciplinary expectations for writing in your field, locate a journal article that focuses on your area of study. If you have not yet decided upon a major, find a journal article about a topic that interests you. Ask a librarian or your instructor for assistance if you need help finding an article.

Next, use the following handout, produced by Student Academic Success Services, Joseph S. Stauffer Library at Queen's University (2018), to work with the article.

Analyzing Disciplinary Expectations Tool

Queen's SASS

Step 1: Skim reading

☐ Skim through the paper in 3-4 minutes. That means **finding (but not *reading*) major sections** like the introduction and conclusion, headings, where references come, etc.

☐ Then, **quickly read the introduction and conclusion** to roughly identify the topic of the paper. Don't stop to use a dictionary, re-read complicated sections, or try to read every word.

Step 2: Analyzing structure

☐ What is the paper's main argument or contribution to the discipline (or thesis statement, if you can find one)? Where is this argument/contribution stated? How often is it repeated?

____
____
____
____
____

If there are headings, what are the heading titles (e.g. "Introduction," "Conclusion," "Results," "Discussion" etc.)? Approximately how long is each section as a percentage of the article?

1. ____________________________ % of length: ______
2. ____________________________ % of length: ______
3. ____________________________ % of length: ______
4. ____________________________ % of length: ______
5. ____________________________ % of length: ______
6. ____________________________ % of length: ______

☐ How does the writer signal the start of a new section? Do they use discursive markers such as "to conclude...," "first, second, third...," "however,..." etc.? (Find a useful list of these at http://www.phrasebank.manchester.ac.uk/summary-and-transition/). This is especially useful to consider if there are no headings.

Example signal phrases for section openings:

____
____
____
____

☐ Does every section or part of the article contain an equal number of references? Do some sections include many or very few references?

- ☐ Yes, referenced are used equally throughout.
- ☐ No, references are used more in certain sections than others.
  - Sections with many references: ______________________
  - Sections with few references: ______________________

Step 3: Assessing argumentation

☐ Does the writer highlight similar studies, related articles or books, or other scholarship in the area? If so, where?

- ☐ Yes. Where? ______________________
- ☐ No

☐ Does the writer state exceptions or limitations to their argument? If so, in which sections?

- ☐ Yes. Where? ______________________
- ☐ No

☐ Does the writer state plans for future research?

- ☐ Yes
- ☐ No

☐ How often does the writer make claims – conclusions based on their argument – and how often does the writer use evidence to back up those claims?

____

____

☐ What kinds of evidence does the writer use to support their ideas?

- ☐ Books
- ☐ Articles
- ☐ Government reports
- ☐ Statistics
- ☐ Experimental data
- ☐ Theories
- ☐ Other ______________________

☐ How is the evidence presented?

- ☐ Writing description
- ☐ Graphs/charts
- ☐ Tables
- ☐ Appendix
- ☐ Mathematical Calculations

- [ ] How much evidence is included? Is it in every paragraph?

____

- [ ] Does the writer explain the evidence, or leave it in a long list (or e.g. include graphs without any commentary)?

____

____

- [ ] What style of referencing is used? (If you don't know the proper name, write an example).
    - [ ] Chicago
    - [ ] MLA
    - [ ] APA
    - [ ] IEEE
    - [ ] Other: ______________________________________

Is there a references or bibliography list? What is its title, and what material does it include?

- [ ] Title: ______________________________________
- [ ] Includes: ______________________________________

____

Step 4: Understanding Style

- [ ] Does the writer use a large amount of technical vocabulary that only experts would understand?
    - [ ] Yes
    - [ ] No

- [ ] Aside from technical terms, is the language so complex that a regular reader (a smart undergraduate student) wouldn't understand it?
    - [ ] Yes. Example sentence: ______________________________
    - [ ] No ______________________________

- [ ] How long are the paragraphs? How long are the sentences?
    - Paragraphs: ______________________________________
    - Sentences: ______________________________________

Queen's
SASS

☐ Does the writer use "I," "we," both, or neither?
- ☐ I
- ☐ We
- ☐ I and We
- ☐ Neither

☐ Does the writer include an engaging opening - a hook, an anecdote or sense of story?
- ☐ Yes
- ☐ No

☐ Is the title purely descriptive or does it include some wordplay, sense of mystery, etc.?
- ☐ Descriptive title (e.g. "A study of X in…" or "A history of Y…")
- ☐ Engaging title

Now compare what you found out about disciplinary expectations for writing in your field with what your classmates discovered. Your instructor may ask you to work in a group with peers who are studying similar or different subjects. Present your group's findings in a brief, informal presentation to the class.

Continuing Exploration of Disciplinary Expectations for Writing

The sources below provide further information about disciplinary expectations for writing. Consult these resources to learn more about writing in your field of interest.

Centre for Writing and Scholarly Communication. (n.d.). *Academic and professional writing resources*. The University of British Columbia. https://learningcommons.ubc.ca/improve-your-writing/writing-resources/

Debby Ellis Writing Center. (n.d.). *Writing for different disciplines*. Southwestern University. https://www.southwestern.edu/offices/writing/writing-for-different-disciplines/

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Purdue Online Writing Lab. (2020). *Welcome to the Purdue OWL*. Purdue University. https://owl.purdue.edu/owl/purdue_owl.html
→ Look in the "Subject-Specific Writing" section

Writing Across the Curriculum. (2020). *Guidelines for writing in the disciplines*. Appalachian State University. https://wac.appstate.edu/resources-teaching-writing/writing-about-guidelines-wags

Writing@CSU. (2020). *Writing in specific disciplines*. Colorado State University. https://writing.colostate.edu/guides/

The Writing Center, University of North Carolina at Chapel Hill. (2020). *Tips and tools*. https://writingcenter.unc.edu/tips-and-tools/
→ Look in the "Writing for Specific Fields" section

Homework: Email Your Instructor about Your Findings

Compose a memo to your instructor in which you address the following questions.

1. What did you find out about disciplinary expectations for writing in your field of interest?
2. As a professional in training, what can you take away from this chapter's activities?

Consult the "Writing Print Correspondence" chapter of this textbook for guidance when writing and formatting your memo, and remember to cite and reference outside sources of information that you use.

After you have drafted your memo, use the handouts "Compound Adjectives" (McKeever, n.d.) and "Using Which, That, and Who" (William & Mary Writing Resources Center, 2018), provided below, to refine your text.

Yuba College Writing & Language Development Center

Compound adjectives

When we use two words together to create a single modifier, we create compound adjectives that are sometimes, but not always, hyphenated.

Before the noun, use a hyphen

Join compound adjectives with hyphens when you use them before the noun. (Note that *twelve-year-old* does not use an *s*):

> *She wrote an **eight-page essay**.*
> *Sandra is looking for a **part-time job**.*
> *The **twelve-year-old boy** is a skateboard champ.*
> *We took a **fast-moving train** to Santa Barbara.*
> *It was a **well-developed research paper**.*
> *He's taking a **much-needed vacation**.*

After the noun, do not use a hyphen

Do not use a hyphen when the compound adjective comes after the noun. Notice, in this case, the *s* on *twelve years old*:

> *Her essay was **eight pages long**.*
> *Sandra's job is **part time**.*
> *The skateboard champ is **twelve years old**.*
> *The train to Santa Barbara was **fast moving**.*
> *Her research paper was **well developed**.*
> *His vacation was **much needed**.*

Exceptions to the rule

If the compound *contains a proper noun*, do not use a hyphen even if it does come before the noun. If the adjective is *composed of two nouns*, do not use a hyphen. And never use a hyphen with a *comparative* (*-er*) or *superlative* (*-est*) or *to join an –ly adverb to an adjective*.

Containing proper nouns:	*Have you bought the **State Radio concert** tickets yet?*
Two nouns:	*They met at the **Friday night** dance.*
In comparisons:	*This is a **better looking** rosebush.*
ly-adverb + adjective:	*It's an **easily understood** process.*

Preventing confusion

Sometimes the hyphen also prevents confusion, as in the following examples:

Expression	Explanation
*Four **year-old** boys:*	There are four boys. They are each a year old.
***Four-year-old** boys:*	There are several boys. They are each four years old.
***Dirty-book** burners:*	Several people are burning "dirty" books.
***Dirty** book burners:*	Several unwashed people are burning books.
***Greek-language** scholar:*	He is a scholar who studies the Greek language.
***Greek** language scholar:*	He is Greek, and he studies languages.

Compound adjectives sometimes "lose" their hyphens over time, becoming a single word (*eye-catching* becomes *eyecatching*, for example), so the only way to know for sure is to look the word up in a dictionary.

Contributed by Rosemary McKeever

WILLIAM & MARY | WRITING RESOURCES CENTER

Using *Which*, *That*, and *Who*

Which, *that*, and *who* are all relative pronouns. Always use ***who*** when referring to persons, and use ***that*** and ***which*** when referring to things, such as objects, animals, and places. Here are three examples:

1. The tall man **who** works at the café often comes here to read.
   Who refers to a person.
2. Do you see the bird **that** lives in the holly bush?
   That refers to the bird, which is not human.
3. My copy of the Koran, **which** was sitting on the coffee table, has disappeared.
   The writer uses ***which*** to refer to an inanimate object.

These are not difficult distinctions; however, deciding whether to use ***that*** or ***which*** can be tricky. Follow these guidelines:

- A clause following ***that*** contains information that is vital, or "restrictive," to the meaning of the sentence. Also, ***that*** describes a specific object.
- A clause following ***which*** contains nonessential, or "non-restrictive," information. The meaning of the sentence would remain intact if the information is removed.
- Also, ***which*** is always preceded by a comma, whereas ***that*** requires no additional punctuation.

Let's return to examples 2 and 3:

2. Do you see the bird that lives in the holly bush?

The bird is not just any bird; the sentence refers to a specific bird that lives in the holly bush. This information is essential, so use ***that*** in order to be precise.

3. My copy of the Koran, which was sitting on the coffee table, has disappeared.

In this sentence, the most important fact is that the book has disappeared. It may be useful to know that it was on the table, but since that information is still nonessential, use ***which***.

For more information on relative clauses, see: writingcenter.unc.edu/relative-clauses/

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Reflecting on Performance

Dawn Atkinson

Chapter Overview

The current chapter emphasizes the value of reflecting on performance and provides guidance for writing assignments that center on this activity. *Reflecting on performance* means to carefully consider how you undertook something, the results of your efforts, and how you can apply the knowledge moving forward.

Chapter Introduction

As an introduction to the importance of reflecting on performance, read an article entitled "Reflecting on Work Improves Job Performance" (Nobel, 2014), which can be found at https://hbswk.hbs.edu/item/reflecting-on-work-improves-job-performance. Afterwards, work with a small team to complete the following tasks based on your understanding of the reading.

1. Identify the main point of the article.
2. Identify the evidence used to support the main point.
3. Discuss whether you agree with the main point, and supply explanations for your answers.
4. Discuss how the article applies to a student's academic work in college.
5. Present your group's findings in a brief, informal presentation to the class.

Self-Regulated Learners Reflect on Performance

When people reflect on performance, they focus on things they have done previously—by taking a close, honest look at personal beliefs, actions, and expectations—with the aim of improving future endeavors. To better understand how reflecting on performance might be applied in an academic setting, read the following case study and the information that accompanies it, which are adapted from Kirk (2017b).

Case Study: Tina's Understanding of Her Efforts in College
As a first-generation college student and single mother, Tina strives for a better life for herself and her daughter. She knows that a college education will set her on a path to a rewarding livelihood, but juggling college, work, and family puts many different demands on her time. Tina is dedicated to her studies, and she dutifully highlights her textbook readings and spends long hours preparing her first writing assignment the day before it is due. Nevertheless, she earns a mediocre grade on the writing assignment and afterwards thinks to herself, *I guess I'm not cut out for college after all. I work so hard, but I still don't have what it takes to earn the high grades I need*.

Although Tina feels discouraged, by redirecting her time and energy to more effective ways of tackling assignments, she can likely bring about a more rewarding academic experience, which, in turn, can boost her motivation and feelings of *self-efficacy* (her belief in her capacity to achieve goals). This statement is likewise true for all students. Key to making progress is learning how to reflect on one's own processes, a step that is integral to the cycle of self-regulated learning illustrated in Figure 1.

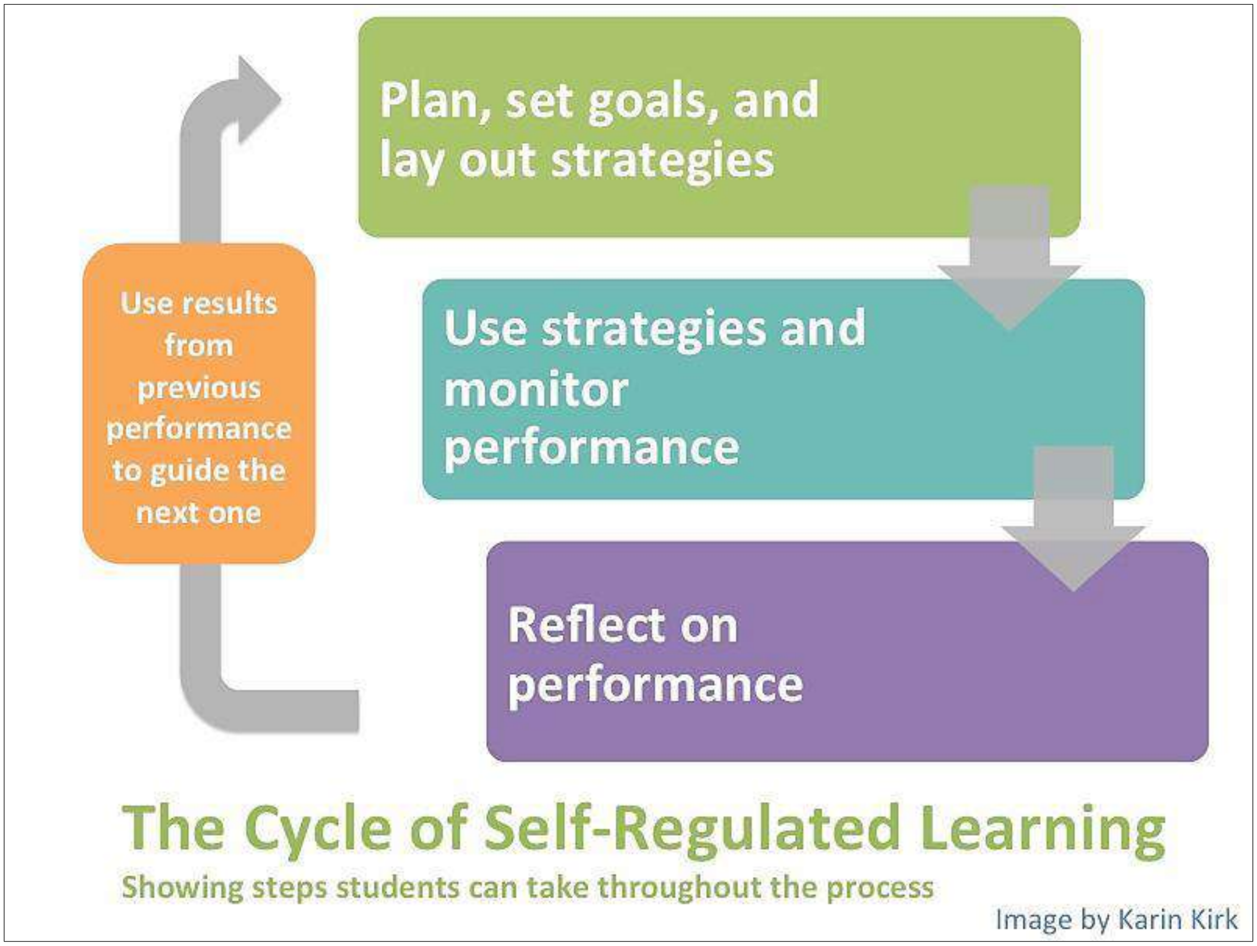

Figure 1. Phases of the self-regulated learning cycle (Kirk, 2017a)

In the cyclical process of self-regulated learning, a student plans for a task, monitors his or her performance, and then reflects on the outcome. The cycle then repeats as the student uses the reflection to adjust and prepare for the next task. We will now take a closer look at how to implement steps in the cycle.

Phase 1: Plan, Set Goals, and Lay Out Strategies

Before you begin working on a task for a class, establish a plan for completing it so that you can be efficient with your time and effort. The following prompts can help you develop a plan.

- Analyze the learning task. Is it a task you have done before, or is it something new? Does it build on a homework or in-class activity you completed in the past? How much time will it take? How much focus will you need?
- Set goals. How will you structure the task? What are the intermediate checkpoints and sub-goals? For example, can you complete an outline with two weeks to go and then a rough draft one week prior to the due date? That plan would likely allow you time to seek out extra help as needed.
- Plan strategies. Will you need resources from the library, and how can you go about finding them? Will you need to book appointments with a writing tutor and your instructor? Given your needs, when should you get started on the task?
- Set expectations for the outcome. Given how much time you have available, your strengths and weaknesses, and your current standing in the course, what type of outcome would you like?
- Work out how to proceed if obstacles arise. For example, if you do not understand some of the assignment directions, plan to ask the instructor for clarification during office hours.

Phase 2: Use Strategies and Monitor Performance

In this phase, proceed with your plan. Because you have already created the plan, you can now focus exclusively on carrying it out. Here are some key points to consider as you work through this phase.

- Think carefully about the actions you take and their effectiveness. For example, you might think, *when I studied in a quiet location in the library, I completed the reading more quickly than when I read at home*. Record the observations in a notebook for future reference. Some instructors require students to write reflective assignments, and your record of observations may be useful for that type of assignment.
- Monitor progress on your goals and sub-goals.

Phase 3: Reflect on Performance

Reflect on the outcome of your efforts: in other words, think about how you did on a particular assignment, why you earned the score you did, and how you can use the knowledge to improve future outcomes. Take into account the following points while reflecting.

- Compare your performance to your main and sub-goals rather than comparing it to other students' performance. Reflection requires looking inward for answers rather than looking at how others did or placing blame on other students or the instructor.
- Consider the effectiveness of your plan. Did it produce the outcomes you aimed for? If not, what changes will you make to a plan for a future assignment? How did your

timeline for achieving sub-goals work out? What changes would you make to a similar timeline in future?

- Consider the effectiveness of the individual strategies you outlined as part of your plan. Did you implement the strategies? Did you select appropriate strategies? If not, what other strategies can you try next time?
- Use your thoughts about your performance to plan for a future task. How will you adapt your approaches to planning, using strategies, managing time, and monitoring your performance?

Again, the phases outlined here are cyclical, meaning that they should continue during a semester and throughout your academic career as you refine your approaches to assignments.

To draw this section to a close, writing is a skill, and skills can be developed with work. For the work to be maximally productive, a writer needs to consider the tactics he or she uses when preparing assignments and how those tactics might be modified when preparing future assignments to produce different results. In other words, the writer needs to reflect on performance.

Guidance for Writing an Assignment that Asks for a Reflection on Performance

If your instructor assigns a paper that requires a reflection on performance, you may be asked to do the following:

1. Discuss what you did and why.
2. Reveal the results of your actions.
3. Identify what you learned as a result of the experience.
4. Articulate how you will apply what you learned to future experiences.

Notice that the list is numbered, which indicates that the steps proceed in a sequential order. In other words, to establish context for the reader's benefit, you must first discuss what you did before writing about how you will apply the knowledge gained through the experience to future endeavors.

Although the list above provides a skeleton outline for writing a reflection on performance, you may also use pre-writing strategies to build momentum for your paper, to assemble connections between your thoughts and what the assignment asks you to do. To begin compiling thoughts about the assignment, read through your notes about the actions you took and the effectiveness of the results (see "Phase 2: Use Strategies and Monitor Performance"). Afterwards, try a freewriting activity to see what further ideas come to mind about the assignment. The following directions for freewriting are adapted from Wilfrid Laurier University (n.d., "Free-Writing Activity").

1. Set a timer for three minutes.
2. Write freely and honestly about your experience until the timer buzzes.
3. Review what you have written.
4. Underline keywords or ideas that might require further exploration or thinking.
5. Set the timer for another three minutes.
6. Write freely and honestly about the keywords or ideas that you underlined until the timer buzzes.
7. Review what you have written.
8. Think about how you might use the freewriting notes to reflect on performance in your assignment.
9. Disregard extraneous or off-topic information from your freewrite when producing your draft.

Once you have compiled some initial ideas for the assignment through freewriting, you may also decide to create an outline to formalize plans for your paper. Use the first set of numbered steps in this section as a starting point for an outline.

Guidance for Writing a Reflective Portfolio Letter

Some university writing instructors use *portfolios*, collections of coursework, to gauge students' academic performance over the course of a semester, and a reflective cover letter typically accompanies this type of assignment. A reflective cover letter introduces the portfolio's contents and discusses whether and how the pieces evidence meeting course requirements, or demonstrate progress toward long-term goals, or both. The letter is an argumentative text, meaning that it must clearly tie evidence and reasons to statements about progress in order to persuade the instructor or other readers of the validity of claims. To create these necessary links in the letter, think carefully about which pieces of evidence align best with course requirements, and reflect on how the class helped you to develop requisite skills. As with any piece of correspondence, a portfolio cover letter should maintain a respectful tone towards readers and follow established design, organization, and source attribution conventions. Remember too that the cover letter is an artifact used to evaluate course performance, so it should also follow standard spelling, grammar, capitalization, and punctuation conventions for maximum readability.

Use an introduction, body, and conclusion format when writing a portfolio cover letter. The following list, adapted from Excelsior Online Writing Lab (2020, para. 5), provides further guidance about how to structure this type of letter.

1. In the introduction, provide readers with a little background about yourself as a writer. Where were you starting from as a writer when you began the course? Describe your past experience as a writer without going into extensive detail.
2. At or near the end of the introduction, provide a thesis statement that makes a clear assertion about your growth as a writer and what readers can expect to see in the portfolio.
3. In the body paragraphs, discuss each piece of the portfolio. Give specific examples of your work, your revision, and what you learned. Make sure to address the outcomes or goals of the course. How does your work reflect meeting these outcomes? You may need several paragraphs or pages to make your case, so be sure to review length specifications for the assignment.
4. In the conclusion, explore your continued challenges as a writer: acknowledge where you want to go, but remind readers that you have grown and made improvements thanks to your work in the course. Rather than focusing on new information, the conclusion should follow on from points discussed in the body of the letter.

This structure will help create a portfolio letter that is appropriately reflective and logically developed.

Activity A: Work with a Sample Portfolio Cover Letter

Read the sample portfolio cover letter that follows, which is adapted from MacMillan (2015, as cited in Excelsior Online Writing Lab, 2020, “Sample Portfolio Letter”). Afterwards, identify its components using the numbered list of items presented directly above this activity. Write the components in the margin.

May 9, 2020

Dear Portfolio Committee:

My name is Sally Student, and I am pursuing a nursing degree to become an RN and dedicate my life to helping others. When I entered Writing Foundations class in January, I had little knowledge about core writing skills and argumentation. My high school did not have English classes that focused on writing; instead, we read short stories and completed grammar worksheets. I’ve always liked to write reflections and creative pieces for personal enjoyment, but more formal, purposeful types of writing intimidated me. Although week one of Writing Foundations was overwhelming, as I was unfamiliar with basic terminology to do with writing, I am proud to have persevered, developing confidence all the while. Furthermore, in the process, I gained beneficial knowledge that I can take with me into other classes and my career. Specifically, I learned to perform solid academic research to support my ideas, learned to combine my thoughts with the works and opinions of others, received further education on developing a better writing process, and learned to tailor my writing for different readers. I also learned to use many elements fundamental to strong writing, such as thesis statements, paraphrases, and summaries. In short, the things I learned in Writing Foundations class have helped me to develop into a stronger, more flexible writer.

This portfolio contains three papers and accompanying draft materials to exemplify the skills I have learned in Writing Foundations. The first paper is a persuasive argument on language discrimination. The class used assigned articles for the paper, and from those sources we took a position on whether language discrimination occurs and, if it does, what the effects might be on persons who experience the discrimination. The second paper was a researched argument essay for which we had to pick a topic and perform scholarly research on our own. I chose to research the psychological effects of child beauty pageants on the young participants and argued that these competitions negatively impact self-esteem and may place children at risk of exploitation. The third paper was an in-depth analysis of an article on the new iPad. The professor assigned the article, and students were to examine its argumentative components in order to evaluate its effectiveness.

Upon completion of Writing Foundations, students are supposed to understand how to perform and document scholarly research. This means that we should know how to locate academic articles using reliable resources. Furthermore, it means that we leave the course knowing how to smoothly incorporate the articles we find into an argument and to cite them correctly. Paper two most clearly demonstrates my work in this area. During the process of writing this essay, I learned to use *Academic Search Premier* and other library databases to locate peer-reviewed, academic materials on the exploitation of children through child beauty pageants. After finding numerous articles, I read and annotated the key information before creating a written map linking the various articles together. I then used my findings to develop a thesis and support for my argument. My thesis ended up being, "Beauty pageants are not a healthy activity for children because they force young girls to act like adults, exhibit age-inappropriate sexuality, and have negative body image and mental health problems later in their lives" (Student, 2020, p. 2). To support this position, I used articles from the scholarly publications *PLoS ONE*, *Eating Disorders*, and *Science*. Throughout the essay, I paraphrased or summarized from these sources as needed and documented the texts with APA in-text citations and accompanying reference list entries. Knowing how to perform proper academic research has made my writing stronger by giving me the fundamental tools I need to locate sources that are more reliable than the average internet article.

Another goal of Writing Foundations was to teach us to combine our thoughts and opinions with the ideas, viewpoints, and works of others. Doing so requires interpreting another person's argument and either using it to support our ideas or disputing it based on its weaknesses. My work on all three of the previously mentioned papers met this goal. For each of the assignments, we were required to read the works of others and interpret them in order to form an original argument. Importantly, I learned that incorporating viewpoints different from my own in a paper can actually help strengthen my argument since it shows that I have done a thorough job of research and can discuss more than one side of an issue. In the essay on beauty pageants, for instance, I included arguments from beauty pageant proponents, explaining that many supporters see the events as springboards to lucrative careers in the modelling and entertainment industries (Student, 2020, p. 4). After exploring this alternative position, I asked my readers if these perceived benefits outweigh the serious risks I mentioned earlier in the paper. The alternative viewpoint and the information I used to refute it are the voices of other people combined with my own take on the situation. The whole experience has strengthened my writing ability by teaching me to look for the strengths and weaknesses in an argument and use them to express what I think.

Writing Foundations was also designed to give students more practice with engaging in the writing process, or the steps taken to produce a strong piece of written work. These steps, which occur in repeated sequences, can include researching, notetaking, prewriting, drafting, peer reviewing, editing, reflecting, and revising. I used these steps when preparing all three of my assignments. I began by analyzing the written works of others and writing notes on them and then used those notes to form an argument and a thesis. The next step was a prewriting assignment followed by a first draft. After the first draft was complete, I participated in peer review sessions and consultations with my professor. After some personal reflection, I reworked my draft according to the suggestions and my new ideas. Then, I repeated the review and drafting steps until I developed the final product. The writing process helps me produce stronger work because it requires me to constantly re-evaluate what I am doing. The steps offer multiple opportunities to correct mistakes and clean up assignments. If I tried to turn in my first draft as a final draft, I would lose out on those opportunities to rethink my work. The writing process is something I thoroughly enjoy about writing, and I've come to realize that the only way to learn it is to experience it.

A fourth goal of Writing Foundations was to help us understand how to adjust our texts for different readers. To assist with this goal, the professor specified audiences for each of the assignments. While our first and third papers were intended for academic readers, the researched argument essay was written with an audience specific to our topic in mind. For my essay on beauty pageants, I targeted parents, as I felt they should be aware of some of the important issues surrounding these events, and I learned how to make content and style decisions based on my audience. When writing the essay, I wanted to find credible source material that would be convincing to parents. Having a thorough research process helped me with this effort, but I did have to make some strategic decisions about what to include and omit when writing the assignment to meet readers' needs. Adjusting content and style for an audience is a skill that I will take with me and use in my other courses and future career.

As this letter explains, Writing Foundations taught me to perform solid research with reliable sources, blend my voice with the voice of others by analyzing their work, utilize the steps in the writing process to produce strong texts, and understand how audience considerations can help me become a more effective—and flexible—writer. I am now able to state my perspective more clearly and convincingly than I could to do at the beginning of this course. While I still have much learn about writing and the situational flexibility it requires, I feel I have made considerable strides in Writing Foundations. In future writing courses, I look forward to learning about discipline-specific styles of writing and developing longer, more complex arguments using the skills I've learned. Upon viewing the samples in my portfolio, I hope you will agree that I am ready to proceed to another writing course to further my writing development.

Sincerely,
Sally Student

Having read and identified the components of this portfolio cover letter, now identify what makes it effective. Be specific in your response so you can discuss your ideas in class.

Now identify areas for improvement in the letter. Again, be specific in your response so you can discuss your ideas in class.

By analyzing and evaluating the sample, you may better understand how to compose a portfolio cover letter for a course.

Activity B: Work with Your Writing Assignment Feedback

Reflect on your performance in this writing course by revisiting your assignment feedback to identify positive aspects of your documents and areas for improvement, particularly in terms of source integration, citation, and referencing.

What positive aspects of your past assignments do you want to demonstrate in your next assignment?

Source integration, citation, and referencing (areas for improvement): Which three source integration, citation, or referencing issues do you intend to address when writing your next assignment? Record your responses below. In addition, locate pages in your textbook that will help you address these issues, and record the pages below.

Issue 1:

Issue 2:

Issue 3:

Homework: Reflect on Your Course Performance in a Letter

Consider the outcomes for your writing course(s) in relationship to your writing efforts this semester, and write a block-formatted letter to your instructor in which you address the items listed below. Remember to cite and reference any outside sources of information that you use.

- To what level have you achieved each outcome, and what evidence can you offer to support your claims?
- Identify one or more writing skills you would like to continue to work on in the future.

Consult the "Organizing Paragraphs" and "Writing Print Correspondence" chapters of this textbook for guidance when writing and formatting your letter. You might use the pre-writing strategies listed in the current chapter to develop ideas for your assignment.

Your writing instructor might also use the following prompts during class time as preparation for the assignment. Alternatively, you can use the prompts to think about your own performance.

1. Discuss how successful you have been in achieving the course outcomes with a small group of students in your class. What specific evidence from your writing assignments can you offer as evidence for your claims?
2. Discuss with your group members what you actively did to ensure your own success in the course.
    - Did you establish interim deadlines or sub-goals for yourself when working on assignments? If so, how did you keep track of these?
    - Did you produce assignments in line with given criteria and directions? If so, how did you accomplish this goal?
    - Did you use instructor/peer feedback to improve performance? If so, how?
    - Did you meet with your instructor to resolve questions? How often?
    - Did you visit with tutoring, library, advising, counselling, or other academic support staff?
3. Discuss with your group members how the writing you did in this course affected your development as a writer.
    - How does your writing in this course compare with writing you did in the past?
    - What do you know now that you did not know before taking this course?
    - What can you do now that you could not do before taking this course?
4. Discuss with your group members areas for further development in terms of writing skills. Which skills do you intend to work on in the future? How will you address them?

5. Discuss with the whole class how you intend to use responses to the in-class prompts to develop your reflection letter.

When you have drafted your letter, consult the handouts below—"Making Sense of Colons" (Writing and Communication Centre, University of Waterloo, n.d.-a) and "Making Sense of Semicolons" (Writing and Communication Centre, University of Waterloo, n.d.-b)—to ensure you have used these marks of punctuation correctly in your text.

MAKING SENSE OF COLONS

A colon is a form of punctuation used at the end of a complete sentence to introduce a **list** or **quotation**, offer an **explanation**, or highlight **information**. It prepares the reader for the information that comes after it.

Colons and Independent Clauses

A colon can join two complete sentences (**independent clauses**) when the second clause is connected to the first in terms of content. Capitalization of the first word in the second sentence varies according to the style manual used.

*e.g., Exercise improves cognitive function in one key way*❶*: It promotes the growth of new brain cells, thereby enhancing performance on memory tasks*❷.

❶ Independent clause
❷ Independent clause that offers an explanation of the *key way*

Colons and Emphasis/Explanation

A colon follows a complete sentence when introducing a **list** or **quotation**, offering an **example** or **explanation**, or emphasizing a **point**.

Colons **cannot** be used when the writing before the colon is not an independent clause, as in the following sentence:

My favourite foods are: sushi, pizza, and nachos.

*e.g., Participants responded to the survey on three occasions*❶*: baseline, pre-treatment, and post-treatment*❷.

❶ Independent clause
❷ List that clarifies the *three occasions*

Another common use of the colon is to separate a title from a subtitle.

e.g., Star Wars: The force awakens

*e.g., Mark Twain said it best*❶*: "Age is an issue of mind over matter. If you don't mind, it doesn't matter*❷*."*

❶ Independent clause
❷ Quotation

*e.g., Many participants indicated there was a positive outcome of exercising daily*❶*: reduced symptoms of anxiety*❷.

❶ Independent clause
❷ Clarification of the *positive outcome*

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MAKING SENSE OF SEMICOLONS

The semicolon is a useful form of punctuation for **connecting closely-related ideas** in a sentence, usually in the form of **independent clauses**. It allows the reader to identify ideas or claims that are connected to each other.

How to Use Semicolons

There are a number of ways to use a semicolon grammatically; stylistically, however, it is most effective when used sparingly to perform the following tasks:

1. Connect two independent clauses of equal grammatical rank - **OR** -
2. Separate items in complicated lists

Semicolons and Two Independent Clauses with No Transitions

A semicolon is used to link two independent clauses when the ideas in the two clauses are **closely related**, and there is **no co-ordinating conjunction** (and, or, but).

e.g., Some students write down everything said in class (1)*; others take down only the key points* (2).

1. Independent clause
2. Independent clause

Semicolons and Two Independent Clauses with Transitions

A semicolon is used between two independent clauses that are linked by a **transition word** or **expression**.

e.g., Mark took a French course during the summer (1)*; however* (2)*, at the end of the course, he still couldn't understand French* (3).

1. Independent clause
2. **Transition word**
3. Independent clause

A **transition word** or **expression** links words, phrases, or clauses to connect ideas smoothly.

e.g., for example, as a result, in addition, in fact, on the contrary, however, similarly, consequently

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Semicolons and Complex Lists

A semicolon is used between items in a **complex list** or **series**, especially when the items already contain commas. The semicolon allows the reader to recognize **major groupings of words**.

e.g., Students in this course will study the historical, digital, and economic origins of Maker Culture ❶*; the practical, philosophical, and gender resistance to the movement* ❷*; and the technological and political ramifications others might not have considered* ❸.

❶ First in list: topic of study #1
❷ Second in list: topic of study #2
❸ Third in list: topic of study #3

Except for lists, asking "could I put a **period** in place of the semicolon?" is an easy way to identify whether your semicolon use is appropriate. If the answer is "yes," you are probably using it correctly.

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Unit VII: Producing Correspondence

Writing Print Correspondence

Writing Electronic Correspondence

Preparing and Conducting Verbal Correspondence

Producing Responsible Social Media Content for the Workplace

Writing Print Correspondence

Dawn Atkinson

Chapter Overview

This chapter aims to help you understand how to compose memos and letters, types of correspondence commonly produced in the workplace. It discusses context, audience, purpose, organization, formatting, and style considerations for these genres and presents examples that can be analyzed and evaluated as you learn to construct your own documents. In addition, it provides specific guidelines for writing claim and adjustment letters to help you prepare for the chapter's homework assignment.

Context, Audience, and Purpose for Memos

Memos are used for communication within organizations to establish a written record of correspondence. They may be distributed in the bodies of emails, in email attachments, or in paper form and can convey a certain level of authority and formality when used to deliver routine messages; progress, incident, and other short reports; employee safety policies; company statements; brief internal proposals; and other types of in-house information. They can also be posted in workplaces to keep employees who do not have ready access to email up to date on matters of interest.

Memo Organization

Everyday memos follow an introduction, body, and conclusion organizational format. Although the chapter "Organizing Paragraphs" provides a detailed overview of these sections, as a reminder, an introduction indicates the subject of a document and helps guide readers through the document. It should establish context for the rest of the piece, in other words. The body section of a memo delivers the details of the communication, with each body paragraph focusing on one main point that is articulated in a topic sentence. The conclusion unifies the document by emphasizing its central message and reiterating key ideas. The sample memo in Figure 1 follows this introduction, body, and conclusion structure.

Memorandum

To: Fang Hu, Director of Human Resources
From: Nicola Maryport, Dean of the Faculty of Humanities and Social Sciences
Date: April 20, 2020
Subject: Workload Division Plan for Emma Kontag

Since her hire, Emma Kontag, full-time administrative associate, has been housed in the Faculty of Humanities and Social Sciences, helping to support departments within that academic unit. Due to campus restructuring, she will now also assist the Pharmacy Department with its administrative tasks. To help ensure she is able to complete her duties for each area of responsibility, this document sets out a workload division plan for Ms. Kontag, which will take effect during the Fall 2020 semester. It identifies approximately how much time she will dedicate to her areas of responsibility each day and her new office location.

Ms. Kontag's new schedule will see her working 30 hours a week for the Faculty of Humanities and Social Sciences and 10 hours a week for the Pharmacy Department. The day-to-day specifics of this plan are meant to be flexible to accommodate fluctuating times for meetings and other duties that arise and evolve; however, the arrangement establishes a consistent blueprint by which Ms. Kontag can schedule her workdays.

To help ensure the new work plan is feasible, Ms. Kontag's office will be relocated from Legacy Hall room 200 to Philanthropy Hall room 114. This new office site is centrally located in building space shared by both Humanities and Social Sciences faculty and Pharmacy faculty, meaning that Ms. Kontag will not need to travel far to deliver mail, gather signatures, attend meetings, and attend to other responsibilities. It is a spacious and well-lit office and one that I hope will suit her needs.

To summarize, effective Fall 2020, Emma Kontag will work 30 hours a week for the Faculty of Humanities and Social Sciences and 10 hours a week for the Pharmacy Department. Her office will be in Philanthropy Hall room 114, a convenient location that will help to make the new workload division plan possible.

Figure 1. An example memo with a clear organizational structure

This sample memo's organizational structure and specific and informative subject line help to clearly reveal its message to readers.

Like letters and emails, memos may deliver both routine messages and those that have the potential to evoke more emotive responses on the part of recipients. When writing correspondence, it is thus crucial to consider audience reactions and how you can convey important information in a forthright but polite manner. To this end, you may decide to use a direct organizational approach, which delivers the main message of a document right away, to call readers' attention to matters of importance. When using this pattern, a writer begins with the main point of the document, follows with an explanation of details, and ends with a goodwill closing that aims to build a positive relationship with readers. Figure 2 shows an example of the direct organizational approach at work in a memo.

Memo

To: All Employees
From: Travis Summerfield, Physical Facilities Director
Date: April 1, 2020
Subject: Boiler Shutdown at Best University

Memo block with an informative subject line (notice that the items after the colons are aligned using the keyboard tab key so they can be seen easily)

Physical Facilities staff will be shutting down Best University's main boiler on April 5, meaning many campus restrooms and laboratories will be without hot water for one week.

Main point

To conduct maintenance tasks and repair any boiler issues, Physical Facilities schedules a week-long boiler shutdown once each year. Although this shutdown may be an inconvenience, it enables essential work to occur and helps to keep the boiler operating effectively the rest of the year.

Explanation of details

The Physical Facilities Department apologizes for any difficulties caused by the boiler shutdown.

Goodwill closing

Figure 2. A memo that uses the direct organizational approach to deliver a timely message

As Figure 2 illustrates, the direct organizational approach delivers important news right away. In contrast, the indirect organizational approach reveals the core message of a piece of correspondence gradually as the document progresses and can be used to convey particularly sensitive news. A document using the indirect organizational approach begins with context setting, provides an explanation that leads into the main point, and ends with a goodwill closing. The example memo in Figure 3 follows an indirect organizational approach.

Memorandum

To: All Employees
From: Peggy Kickinghorsewoman, Store Manager
Date: June 20, 2020
Subject: Changes Inspired by Self-Service Efficiencies

Context setting

Butter's Grocery truly appreciates all the employees at its Oak County location who have helped to make the store among the most profitable in its southeast region of operations. By wholeheartedly embracing the self-service check-out machines installed in the store, you have helped to turn around a once-struggling grocery outlet.

Explanation leading into the memo's main point

While the self-service check-out machines installed in the store have improved efficiency in store operations, they have also resulted in redundancies in customer service provision. In particular, they have resulted in the need for fewer cashiers.

As a commercial operation, Butter's Grocery considers profits when making important decisions; however, it also recognizes that dedicated staff members are at the heart of its success. For these reasons, Butter's will offer retraining for cashiers who wish to move into its other departments of operation. Severance packages will also be available to those cashiers who wish to leave Butter's Grocery to pursue other employment opportunities.

Goodwill closing

The Butter's Grocery management team encourages all employees to bring their questions to the staff meeting tomorrow when the changes described in this memo will be discussed in further detail.

Figure 3. A memo that uses the indirect organizational approach to deliver sensitive news

Although the message in Figure 3 would likely evoke an emotional response from employees, the indirect organizational approach is intended to soften the blow for readers.

Although the points about memo organization discussed thus far may apply to correspondence written in many western countries, take into consideration that different cultures have differing expectations regarding the way information is presented in memos, letters, and emails. For instance, the direct organizational approach may be construed as impolite in some eastern countries where a more nuanced style of communication is favored for messages. As with all technical writing, keep readers at the forefront of your mind when preparing correspondence to help navigate decisions about document organization and content, and when in doubt about what audiences expect, research your target readership. Know who the readers are so you can tailor your message for that demographic in order to create purpose-driven content that they will respond to.

Memo Formatting

Formatting conventions often help to define genres, and memos are no different in this regard. The following steps describe how to format a standard memo.

1. Place the word *Memo* or *Memorandum* (sans italics) at the top of the page, centered or flush left.
2. Insert one blank line of white space.
3. Insert a *To:* line (sans italics and flush left), and list recipients alphabetically by last name or in descending order of organizational rank.
4. Insert a *From:* line (sans italics and flush left) to indicate who is sending the memo.
5. Insert a *Date:* line (sans italics and flush left), and list the full date (e.g., May 15, 2020, or 15 May 2020, but not May 15th, 2020) rather than the numeric date abbreviation for clarity.
6. Insert a specific *Subject:* line (sans italics and flush left) to clearly identify the memo's topic. The subject line for a memo, letter, or email functions as its title, and readers should know what the correspondence is about just by looking at the subject line.
7. Align the information after the colons in the memo header using the keyboard tab key. This formatting detail takes into account the design principle of alignment, which specifies that like items should be lined up with one another to establish visual consistency and to help readers see them easily.
8. Insert one blank line of white space after the memo header.
9. Type the memo paragraphs, each separated with one full line of white space.

In addition to the design points specified in the steps, memos are block formatted, meaning they are single spaced, left aligned, and feature a blank line of white space after each paragraph rather than indented paragraphs. Writers generally use one-inch margins when producing memos and may also include informative headings to give the documents visual structure. Follow the design standards outlined here to ensure readers immediately identify your document as a memo.

Formatting features, such as bold text and lists, can cue readers' attention to important information when used sparingly in memos. Notice, for instance, how Figure 4, which is adapted from the Writing and Communication Centre, University of Waterloo (n.d., p. 4), employs a list to highlight questions for memo readers.

Memorandum

To: All Staff
From: Mandy Penney
Date: June 1, 2020
Subject: Input on a Casual Dress Policy

The human resources office is considering implementing a casual dress policy in the workplace. Please provide feedback on the questions below as management considers changing its current policy.

Staff members have commented that they would feel more comfortable and productive at work if they were able to dress casually. However, our company has not agreed what constitutes acceptable casual attire in the workplace. Here are some questions to consider.

- What can be considered casual dress in a professional work environment?
- Should our policy restrict the open display of body art, such as tattoos or piercings?
- What procedures should we implement if clothing is deemed offensive?
- Should we institute a casual dress policy?

Please forward your responses to me by June 25 so company managers can discuss your input during their July 1 meeting.

Thank you for providing feedback on the casual dress policy. Please email me at mpenney@XYZ.com if you have any questions or concerns about the policy.

Figure 4. A memo that uses a bullet list to draw readers' attention to important content

Lists, such as the one in Figure 4, can be used in both memos and letters to direct readers to key pieces of information. The "Writing Instructions" chapter of this textbook discusses the use of lists in some detail.

Context, Audience, and Purpose for Letters

In comparison to memos, business letters are typically used for formal external communication and to share information with individuals who tend to rely on postal mail for correspondence as opposed to electronic mail. Business letters may be used for a variety of purposes, as the following list indicates.

- Cover letter: accompanies a résumé or other job application materials
- Recommendation letter: recommends someone for a job or other opportunity

- Acknowledgement letter: thanks someone
- Inquiry letter: asks for information
- Response letter: responds to a request for information
- Sales letter: sells a service or product
- Order letter: purchases a service or product
- Collection letter: requests a payment
- Claim letter: articulates a complaint
- Adjustment letter: responds to a complaint
- Transmittal letter (or memo): precedes another document, such as a formal report
    - Supplies details about the accompanying document: what it is, who it is intended for, and key information provided in the document
    - Offers to answer readers' questions
    - Provides the writer's contact information

You will find these content elements present in the sample transmittal letter in Figure 5, which is adapted from Last (2019, p. 166).

Work Right Consulting

325 Collins Way | Redmond, OR 97756 | 541-567-2546 | www.wrc.com

Uses *letterhead paper* (paper with an organization's contact details and logo, if applicable, in the heading)

May 24, 2020

Tina Blakely, Owner
Three Creeks Spa Service
12129 Lone Tree Place
Sisters, OR 97759

Uses a formal greeting followed by a colon

Dear Ms. Blakely:

Enclosed you will find my final report on team building strategies for employees at Three Creeks Spa Service. I hope this report will serve your business well.

Provides details of the attached document

The report details approaches that have been successful for other organizations like Three Creeks, and it makes recommendations for specific team-building exercises based on the findings of interviews conducted with your staff, as well as best-practice guidelines for fostering collaborative workplaces. As a result of informal conversations with staff at Three Creeks, I know they are excited to try some of these team-building activities.

Offers to answer the reader's questions

If you have any questions about the report, please call or write to me using the contact details listed herein. Thank you for giving Work Right Consulting the opportunity to serve your business.

Sincerely,

Thomas McMahon

Thomas McMahon
Director, Work Right Consulting

Enclosure: Team Building Report

Figure 5. A letter of transmittal that precedes an accompanying report

Regardless of the circumstances that prompt a letter or who its readers might be, a business letter should communicate in a respectful manner to accomplish its purpose.

Letter Organization

Like memos, letters follow an introduction, body, and conclusion format, although these sections may also be expanded to include subsections in the case of short reports formatted as letters. The sections and subsections might be identified with informative headings to help readers navigate document content.

As is the case with memos, research your target readership when writing a business letter to identify contextual and cultural considerations that may impact document content and its organization. The direct and indirect organizational approach may be used in business letters, and it is important to know what readers will expect and respond to in order to accomplish your purpose for the correspondence.

Letter Formatting

Letters may be laid out in different ways, for instance, with indented paragraphs or without, but this chapter focuses exclusively on full block letters since they follow a straightforward design. *Full block* means that the entire letter is aligned with the left margin; in other words, single space the entire document, left align all the text, and insert a blank line in between paragraphs instead of indenting them. The following steps explain how to format a typical full block letter. Omit the first step when using letterhead paper.

1. Type the sender's mailing address minus his or her name.
    - Spell out street words, such as *avenue*, *first*, *and west* (sans italics).
    - Spell out the state name if the letter is addressed to a recipient in the U.S., or use the United States Postal Service's abbreviation for the state name. Be consistent with your choice when typing mailing addresses for the sender and recipient.
2. Insert one blank line of white space.
3. Type the full date (e.g., June 12, 2020, or 12 June 2020, but not June 12th, 2020).
4. Insert one blank line of white space.
5. Type the recipient's name, title, and mailing address. Spell out street words.
6. Insert one blank line of white space.
7. Type *Dear* (sans italics), the recipient's title and last name, and a colon to create the salutation.
    - Use the courtesy title *Ms.* when addressing a female, unless the recipient prefers *Mrs.* or *Miss*; however, know that professional titles, such as *Dr.*, take precedence over courtesy titles for both females and males in salutations.

- Use a salutation appropriate to the letter's context: for instance, *Dear Customer:* might be useful when addressing a patron whose name is unknown.
- Use *Dear Colleagues:* or similar in a salutation for a letter with multiple recipients.
- Avoid sexist salutations like *Dear Sirs:* and *Dear Gentlemen:* that may exclude and alienate readers.

8. Insert one blank line of white space.
9. Type the subject line, if applicable (e.g., Subject: Promotion from Assistant to Associate Laboratory Director). This line functions as the document's title and can help with filing and retrieval.
10. Insert one blank line of white space.
11. Type the letter paragraphs, each separated with one full blank line of white space. Do not indent the paragraphs.
12. Insert one blank line of white space after the final paragraph.
13. Type a thank you.
14. Insert one blank line of white space.
15. Type the complimentary closing and a comma. *Sincerely,* (sans italics) is always appropriate.
16. Insert two to four blank lines of white space depending on the size of the sender's signature. You will sign the letter in this white space if required.
17. Type the sender's signature block: name, professional title, and contact details minus mailing address.
18. Insert two blank lines of white space.
19. Type the enclosure line, if applicable.
    - Provide an enclosure line if other documents accompany the letter: state the enclosure number, if there is more than one document, and indicate what the document is (e.g., Enclosure: Cage Washer Operations Manual; Enclosure 2: Cage Washer Temperature Readings).
    - Align the enclosure line(s) with the left margin.
    - Mention the enclosures in the letter so readers know why they are being sent.
20. Type the copy line, if applicable.
    - Provide a copy line if you want recipients to know that the letter is being sent to multiple people.

- Type *cc:* (sans italics) followed by the other recipients' names, listed by organizational rank or alphabetized (e.g., cc: Dr. Jan Horák, Chair of the Institutional Care and Use Committee).
- Align the copy line with the left margin.

Apply one-inch margins to a letter when using these formatting steps in accordance with genre conventions.

Figure 6 provides an example of a multipage recommendation letter that follows the formatting steps listed.

1420 South Bend Street
Crabapple, OH 12345

March 31, 2020

Alicia Duran, Principal
Crabapple High School
789 Dolphin Way
Crabapple, OH 12345

Dear Principal Duran:

Subject: Recommendation for Evan Tomkins

I write to support Evan Tomkins as he applies for your position. I know Mr. Tomkins through his work as an adjunct instructor in the Writing Program at Best University and am pleased to serve as his reference. Although he brings a wealth of diverse professional experience and skills to the workplace, this letter will focus primarily on Mr. Tomkins' performance in the classroom since he is applying for a teaching position at Crabapple High School.

With a master's degree in technical communication and experience working as a freelance writer; phlebotomist; and college, high school, and clinical instructor, Mr. Tomkins has the knowledge and diverse skill set to engage learners in the classroom and to support their efforts to meet course outcomes. He draws upon his background, in particular, when teaching developmental writing and introduction to technical writing at Best University in order to emphasize to students the need for strong communication skills in the workplace. Although he rightly insists that students produce quality writing, he also scaffolds their efforts to succeed by supplying supports, such as checklists to use during in-class editing sessions, so that they have a clear understanding of the standard conventions of written English, as well as assignment expectations. He also spends considerable time seeking out and developing materials for lessons to reinforce key skills that students may initially struggle with, again to support their success.

Mr. Tomkins' training in technical communication truly shines through when he encourages students to develop well-organized documents that prioritize audience and purpose. To this end, he emphasizes the development of strong thesis statements and topic sentences, providing the rationale that these features exist to guide readers as they navigate texts. He also encourages students to compose clear and cohesive introductions that forecast document contents, again prioritizing the development of reader-friendly texts. Several semesters ago, I taught a student who had previously taken Mr. Tomkins' developmental writing course, and I was genuinely impressed with the importance she placed on document

Principal Duran 2 March 31, 2020

organization. She shared with the class that Mr. Tomkins' lessons had prompted this emphasis in her writing.

The support that Mr. Tomkins supplies in the classroom also extends to his spoken discourse, as he works to foster a learning environment in which all students feel included and valued. When I observed one of Mr. Tomkins' developmental writing lessons at Best University in November 2019, I witnessed several strategies he uses to build rapport with students and sustain a positive learning environment: for example, he addresses students by name, supplies positive reinforcement by praising their work ethic, and explains that everyone supports one another in the classroom. I enclose Mr. Tomkins' observation report for your reference.

To draw this letter to a close, Mr. Tomkins' professional background and dedication to teaching and supporting learners make him an excellent candidate for the career opportunities he chooses to pursue. For these reasons, I wholeheartedly support his hire.

Thank you for your time and review. If you would like further information to support your hiring decision, please do not hesitate to ask.

Sincerely,

Dr. Alma Stornberg

Dr. Alma Stornberg
Writing Director
Best University
AStornberg@bestuniversity.edu
444.444.4444

Enclosure: Observation Report
cc: Evan Tomkins

Figure 6. Sample recommendation letter that follows established formatting conventions

As you may notice, Figure 6 contains a running header at the top of document page two. When a letter or a memo is two or more pages long, place a running header at the top so readers associate all pages with the document. Multiple running header styles exist, and Figure 6 exemplifies a style commonly used in workplace correspondence: the recipient's name appears in the upper left corner, followed by the page number, which is centered, and the date of the correspondence, which is in the upper right corner. This type of running header begins on document page two. Figure 7 shows an alternative version of this type of running header.

Ms. Beverly Robinson Page 2 July 1, 2020

Figure 7. Example of a running header that can be used in business correspondence

When using the running header format shown in Figure 7, place the recipient's name, the page number, and the date of the communication on separate lines in the upper left corner of the document. Start the running header on document page two.

Writing Claim and Adjustment Letters

Claim letters express complaints about inadequate products, services, or experiences and typically request some sort of compensation in return, while adjustment letters address the complaints. Both varieties of letters can be effective, if they are produced with care.

<u>Claim Letters (adapted from McMurrey, 2017c, "Complaint Letters")</u>

The essential rule in writing a claim letter is to maintain your poise and diplomacy, no matter how justified your gripe is, to avoid making the recipient an adversary. Ensure your complaint is articulated in a clear, complete, and composed manner by observing these guidelines.

1. Identify the reason you are writing early in the letter—to register a complaint and ask for some kind of compensation—but avoid leaping into the details of the problem in the first sentence.
2. Provide a detailed description of the problem to evidence your complaint.
3. State exactly what compensation you desire, either before or after the discussion of the problem or the reasons for granting the compensation. (It may be more tactful and less antagonizing to delay this statement in some cases.)
4. Explain why your request should be granted. Presenting the evidence is not enough: state the reasons why the evidence supports your request.
5. Suggest why it is in the recipient's best interest to grant your request: appeal to the recipient's sense of fairness or desire for continued business, but avoid threats. Find some way to view the problem as an honest mistake; do not imply that the recipient deliberately committed the error or has no concern for others. Toward the end of the letter, express confidence that the recipient will grant your request.

Figure 8, adapted from McMurrey (2017d), demonstrates these guidelines at work in a claim letter.

111 White Horse Lane
Pittsburg, PA 54321

24 April 2020

Director of Consumer Relations
One Microwave Plaza
Miami, TX 75249

Dear Director:

I am writing you concerning the purchase of a Waveport 5000 I made on 10 March 2020 in the amount of $225 and its subsequent return.

My Waveport 5000 purchase included two-day delivery and a 60-day money-back trial offer, and the $225 price for the product was immediately charged to my Ritz card. However, this product did not perform satisfactorily, and on 15 March, I decided to return the Waveport 5000 to your company. When I spoke to one of your company's representatives by phone, I was informed that any shipping charge, as well as the price of the Waveport 5000, would be credited to my account. I shipped the item back by UPX and was notified 20 March of its receipt. Regardless, when I received my April Ritz card statement, I noticed that the credit had not been applied to my account for either the Waveport 5000 or for the shipping charge.

If the Waveport 5000 was charged to my account immediately when I ordered it, I cannot understand why the same promptness was not used to credit my account upon receipt of the returned item. I request that the refund be processed right away and that your company pay for the finance charges applied to my Ritz account for the item.

Your company's products have helped me in the past, and I would like nothing more than a quick solution to the problem described here so that I may continue to support your business.

Sincerely,

John Flanders

John Flanders

Figure 8. A sample claim letter that maintains a levelheaded tone

As with any piece of correspondence, maintain a reasonable, polite tone when writing a claim letter to increase the chances of achieving your purpose.

Adjustment Letters (adapted from McMurrey, 2017c, "Adjustment Letters")

Adjustment letters should also be handled carefully, particularly when the requested compensation cannot be granted. Here are some suggestions that may help you write an adjustment letter:

1. Mention the date of the original complaint letter and the purpose for your letter early on, as this example, adapted from McMurrey (2017b, "Style in Business Correspondence"), shows.

   > Dear Mr. Stout:
   >
   > I am writing in response to your May 20, 2020, letter in which you describe problems you had with one of our chainsaws. I regret that you suffered this inconvenience and expense and...

   If you deny the request, do not state the refusal right away unless you can do so tactfully.
2. Express your concern over the writer's troubles and your appreciation that she or he has written to you.
3. If you deny the request, explain the reasons why it cannot be granted in as cordial and non-combative a manner as possible. Conversely, if you grant the request, do not express a begrudging tone when doing so.
4. If you deny the request, try to offer partial or substitute compensation or friendly advice (to alleviate the claim writer's aggravation about the denial).
5. Conclude the letter cordially, perhaps expressing confidence that you and the claim letter writer will continue doing business.

The adjustment letter in Figure 9, adapted from McMurrey (2017a), follows the guidelines listed here.

Green Tree Freight Company
323 Wiley Avenue
Columbus, Ohio 45453

March 27, 2020

Marcia Hughes, Owner
Complete Table, Inc.
P.O. Box 3132
Austin, Texas 78703

Dear Mrs. Hughes:

Subject: March 23 letter about damaged stemware

I have just read your March 23 letter about the damaged shipment you received through Green Tree Freight and regret the inconvenience the damage has caused you.

From your account of the problem, I am certain that your request for a $350 adjustment for damage to two crates of Valjean Cristal stemware will be granted. A certain amount of breakage of the sort you describe does unavoidably occur in cross-country shipping, but I am sorry that your property was so extensively damaged.

Please keep the damaged crates in the same condition in which you received them until a Green Tree Freight representative can inspect them. That inspection should take place within two weeks.

If all is in order, as it sounds to be in your letter, you can expect the full reimbursement two weeks after the inspection. I hope this unfortunate accident will not dissuade your company from using Green Tree Freight in the future.

Sincerely,

David Morgan

David Morgan, Customer Relations Associate
Green Tree Freight Company
DMorgan@noaddress.com
(315) 565-6789

Figure 9. A sample adjustment letter that communicates in an amicable manner

Maintain your diplomacy and tact when writing an adjustment letter by placing the reader and his or her perceptions at the center of your communication.

Writing Style Used in Memos and Letters

Establish yourself as a competent professional who takes readers' perceptions into account by composing memos and letters that communicate in a constructive manner. The following list, which is adapted from Last (2019, pp. 39-40), specifies what a constructive communication approach entails.

- Write from one adult to another: In other words, avoid talking down to your reader in a patronizing tone, and likewise avoid sounding petulant or unwilling to take responsibility. Instead, aim to communicate respectfully, responsibly, confidently, and cooperatively—as one mature adult to another.
- Focus on the positive: Emphasize what you can do instead of what you cannot. Try to avoid negative words (e.g., *no*, *not*, *never*, *none*, *cannot*, *do not*) by concentrating on encouraging details.
- Be genuine: Be authentic in your expression. Specifically, articulate reasonable viewpoints that can be backed with concrete evidence. In addition, commit to making improvements when errors occur, but think carefully about whether to use *I* or *we* in such situations. Readers may interpret *we* in the context of a company memo or letter to mean the company as a whole, while *I* clearly points to the writer.
- Be courteous: Keep the reader foremost in your mind by prioritizing that individual's viewpoint. When addressing a specific person in a memo or letter, the words *you* and *your* are acceptable and can be used to create reader-focused writing, as these examples show.
    - Writer-centered: If I can answer any questions, I will be happy to do so.

      Reader-centered: If you have any questions, please ask.
    - Writer-centered: We shipped the order this morning.

      Reader-centered: Your order was shipped this morning.
    - Writer-centered: I am happy to report…

      Reader-centered: You will be glad to know…
    - Writer-centered: We cannot process your claim because the necessary forms have not been completed.
      Reader-centered: Your claim can be processed as soon as we receive the necessary forms.

Readers may respond in kind to messages that use a constructive approach to communication.

In terms of specific style considerations for memos and letters, aim to use everyday language that target readers will likely understand without difficulty. To this end, avoid *correspondence clichés*, overused sayings and strings of text that are stale, wordy, and hold little meaning for readers. Instead, select precise words that articulate your exact meaning to encourage message comprehension. Table 1 lists clear, concise wording that can be used in place of common correspondence clichés.

Table 1. Alternatives to common correspondence clichés

Cliché	Alternative
Without further delay	Now
Until such time as	Until
Due to the fact that	Because, since
First and foremost	First, firstly
Last but not least	Lastly, finally
Sent under separate cover	Sent separately
In the event that	If
Despite the fact that	Although
Pursuant to our agreement	As we agreed
In many instances	Often
In the course of	During
In view of the fact that	Because, since
Per our conversation	As we discussed
To whom it may concern:	Dear XXX: (replace with the recipient's name)

When writing memos and letters, avoid the clichés listed in Table 1 so readers can proceed through your text without difficulty.

In addition to the points already listed, maintain a level of formality appropriate to the context, audience, and purpose for your genre. In a formal piece of correspondence, avoid contractions, slang, and other casual, conversational expressions, and replace wordy phrases with succinct alternatives (e.g., use *many* instead of *a lot of*). Intensifiers (e.g., *really*, *very*, *tremendously*) can also convey informality and add unnecessary words to documents, so omit them. Lastly, avoid using exclamation marks when writing memos and letters to maintain a composed, professional tone; let the force of your message come across in the strength of your writing.

Chapter Wrap-Up

Your correspondence can cogently deliver its message and fulfill its purpose, if it prioritizes the needs and wants of readers and aligns with expectations regarding organization and formatting. Use the advice provided in this chapter to gain confidence when writing memos and letters.

Activity A: Consider Language that May Cause Offense

This chapter emphasizes the importance of maintaining a courteous and constructive tone in print correspondence by always keeping readers' perceptions in mind. Consider how the following scenarios violate this principle, and be prepared to discuss your responses in class.

- Referring to employees as *grunts* in a company memo
- Using the term *rightsizing* to describe layoffs in dismissal letters to personnel

Activity B: Find and Critique Memos and Letters

Locate one memo and one letter: look for samples on the internet or select documents that you or someone you know has received. Bring paper copies of the documents to class, exchange them with a partner, and compare the following aspects in the samples.

- Formatting
- Use of color or visuals
- Overall organization
- Introduction structure
- Clarity
- Formality level
- Tone (reasonable or unhelpful)
- Specificity of purpose

Do the samples follow the guidelines discussed in this chapter? If not, how might they be improved? Discuss your responses with your partner, and then share them with the class.

Activity C: Work with a Text that Focuses on Cultural Considerations and Writing

The essay "Writing in Global Contexts: Composing Usable Texts for Audiences from Different Cultures" (St. Amant, 2020), located at https://writingspaces.org/sites/default/files/stamant-writing-global-contexts.pdf, discusses the importance of taking cultural considerations into account when writing and explores means for accomplishing this task. Read and engage with the essay by following these steps.

1. Survey the text to grasp its overall gist. Look specifically at the essay’s title, overview section, introduction, topic sentences, conclusion, headings, subheadings, and visuals.
2. Read the text carefully while focusing on its content. Annotate as you go by underlining or noting down unfamiliar terms, questions, and thoughts regarding the reading.
    - After reading, try to define the unknown terms you identified.
    - After reading, try to answer your questions. You may need to review the essential details of the text again to do this.
3. Respond to the “Discussion Questions” on page 161 of the text. In addition, answer this question: How does the essay relate to the points covered in the current textbook chapter?
4. Discuss your responses in class.

Activity D: Consider How to Collaborate with Integrity

The ability to work positively and productively with others in the workplace is crucial to professional success, and students are often asked to collaborate with others in university classes to promote the development of team working skills. Nevertheless, when teamwork leads to accusations of cheating or plagiarism, the situation can have particularly negative consequences. This activity asks you to consider how to collaborate with integrity by reading the following information, adapted from Contract Cheating and Assessment Design (n.d., p. 1), and discussing the accompanying scenarios (McGowan, 2016, as cited in Contract Cheating and Assessment Design, n.d., p. 2) with your classmates.

> While educators recognize the importance of collaboration, employers and the public expect that universities award grades that accurately reflect the abilities of individuals. Educators need to have confidence that the marks they give a student fairly reflect that student’s knowledge and skills. If they don’t, the public is at risk from engineers, scientists, accountants, nurses, designers, etc. who are not competent to practice. The challenge for students is that the desire to help friends can sometimes conflict with responsible approaches to learning.
>
> Not all cheating is deliberate. Lack of awareness or care can lead to breaches of academic integrity, so it is useful for students to know the criteria that educators use to judge assignments. Educators will be concerned about the integrity of an assignment if:
>
> - It misrepresents a student’s abilities.
> - They cannot assess a student’s abilities based on the work submitted.
> - A student has somehow gained an unfair advantage over others in the course.
>
> On the following page are 10 scenarios. They have been placed on a continuum with appropriate collaboration at one end, and cheating or ‘collusion’ at the other. Consider where the behaviors cross a line into cheating, and how each scenario might be viewed differently, using the alternative circumstances shown on the right. This activity is intended to generate discussion rather than provide a hard and fast correct answer.

1	A student is struggling with an assignment and visits his university's Learning Advisors for help. They explain how to improve his draft to better meet the assignment requirements.	**Collaboration?**	What if the student asked a parent instead? Or perhaps another student in the course?
2.	Three students collaborate on research for an assignment. They share the readings they find, but analyse and write their assignments individually.		What if 40% of the assignment marks were for research, e.g. finding and retrieving a range of relevant readings?
3.	Four students in a study group have done individual research for their assignments. At their weekly meeting they discuss their research, key ideas, and arguments. They then write their papers individually.		What if two of the students hand up similar assignments?
4.	Five students are working on their group assignment. They divide the assignment into five equal parts and each complete one. One student collates the work and submits it on behalf of the group.		Is this collaboration? What if the task instructions required all students to contribute to each part?
5.	Three students are working on their group assignment and decide to divide it into three equal parts. Two students struggle, so one student does most of the work.		Is equal contribution important in group work? Is this cheating, or just unfair?
6.	Three students email their assignment drafts to one another. They all then revise their own drafts to include ideas they hadn't previously considered, taking care not to copy each other's ideas word for word.		Would it be different if some ideas *had* been copied word for word?
7.	A student shares their assignment from a previous semester with a friend now enrolled in the same course. The student is sure that her friend will not plagiarise it, but only use it as a guide.		What if her friend does plagiarise it, or submits it as her own? What if the student uploaded it to a file-sharing site so lots of students could use it?
8.	Eight students gather in the Library to complete an online quiz together which is worth 10% of their grade. They share all their answers and only get one wrong.		Would it be different if the quiz was worth more? Do you think educators expect students to do these tasks together?
9.	A student is searching a file-sharing site for assignment examples. The topic has not changed since last year, and he finds 6 assignments from previous students. He takes ideas from each, using a thesaurus tool to change the words.		Is it partly the educator's fault for not changing the topic?
10.	A student is working on a large assignment and pays a professional assignment writer to complete parts of it for him. He knows that businesses regularly outsource work, so as long as he pays a fair price, he believes the work belongs to him and he can submit it as his own.	**Cheating?**	Does the work belong to him? Would it be worse if he had outsourced the whole assignment? What if he hadn't paid money for it?

This activity is adapted from McGowan, S (2016). Breaches of academic integrity using collusion. In *Handbook of Academic Integrity*, T. Bretag (Ed.), Singapore: Springer.

Activity E: Brainstorm Ideas for a Claim Letter

Think about a poor-quality product, service, or experience you recently encountered. Answer the following questions to brainstorm ideas for a claim letter.

- What was the product, service, or experience?
- What happened? Why was the product, service, or experience of poor quality?
- What can be done (within reason) about the problem to satisfy you?
- Who is the target audience for the complaint letter?

Homework: Compose a Claim Letter

Draw upon your answers to the questions in Activity E, as well as the guidelines supplied in this chapter, to produce a full-block formatted claim letter. You will need to find the correct name and address for the recipient and include them in your letter. If you use any outside sources in your document, remember to cite and reference them.

Once you have drafted your letter, use the following handout, produced by Yuba College Writing and Language Development Center (n.d.), to check that your language clearly reflects your intended meaning.

Yuba College Writing& Language Development Center

Easily confused words

Computer spell-checkers will *not* help you tell these words apart—you just have to learn them! To this list, add any other words you often confuse or misspell.

Accept and except

Accept is a verb and means *to receive, agree, or believe:*

I generally accept the truth.

Except is a preposition which means *but not* or *other than*:

He is a great guy except for his temper.

Affect and effect

Affect is a verb meaning *to influence or act on*:

How did the teachings of Mahatma Gandhi affect you?

Effect is usually a noun meaning *result*:

The acupuncture had a positive effect on my headaches.

(Note: a less-common use of *effect* is as a verb meaning *bring about: Widespread criticism finally effected a change in procedures.)*

All right and "alright"

All right is the only correct choice. *Alright* is not a word (maybe you're thinking of *already?):*

It turned out all right in the end.

All right, we'll go with you.

Are and our

Are is a verb, a plural form of *be*:

They are expecting a quiz on Thursday.

Our means *belonging to us*:

Our winter break starts in mid-December.

Break and brake

Break means to *separate into parts*, especially by force:

I hope you didn't break my phone when you dropped it.

Brake means to *slow or stop*:

If you brake slowly, you have more control over your car.

Cite, site, and sight

Cite is a verb that means *tell where you learned something:*

My instructor told me to cite my sources.

Site is a noun that means *place or location*, including online locations:

The construction site is marked with a sign.

That website (or site) will be a good resource for your paper.

Sight is the ability to see:

You can protect your sight by wearing sunglasses.

Its and it's

Its is a pronoun showing possession:

The door had its lock replaced.

It's is a contraction that means *it is*:

It's too bad she didn't get the job.

Principal and principle

Principal is an adjective meaning *primary* or a noun meaning *chief administrator:*

Japan's principal export is electronics.

The principal spoke to the assembly about drinking and driving.

Principle is a noun. It means *a rule, idea, or general law*:

The unions fought for the principle of collective bargaining.

Than and then

Than means *when compared to*:

Your purse is heavier than my backpack.

Then means *next, at that time* or *in that case*:

We had dinner; then we went to the movies.

If the car isn't running, then we should take the bus.

There, their, and they're

There is an adverb meaning *in* or *at that place*:

The cookie is there on the plate.

Their means *belonging to them:*

The students presented their views on the issue.

They're is a contraction of *they are*:

They're a great inspiration for the rest of us.

Though and thought

Though is an adverb meaning *even if*.

Though I applied to UC Santa Cruz, I decided to go to Sac State.

Thought is a noun meaning *an idea, belief, or intention*. It is also the past-tense form of the verb *think*:

My thought is that we should wait for them here.

I thought you were finished.

Through and threw

Threw is the past tense of throw—to *make something fly quickly through the air using your arm*:

He threw the Frisbee downfield.

Through shows *movement from one end of something to another*. It also means *because of:*

We searched through the database but never found the book.

I'm graduating early through the support of my family.

To, too, and two

To shows *location*, *direction*, and other relationships in a prepositional phrase; with a verb it marks an infinitive:

We'll be going to the movies tomorrow. We want to go early.

Too means *also* or *in excess:*

I would go, too, but it costs too much money.

Two means 2:

She lives only two miles from campus.

Weather and whether

Weather is a noun; it is the *conditions of the atmosphere* such as temperature, clouds, wind, or rain:

The weather is expected to be warm on Saturday.

Whether means *if* and indicates choices, alternatives, or possibilities:

I don't know yet whether I got in the class.

Where and were

Where is an adverb meaning *in what place*:

He didn't say where he put the keys.

Were is a plural past tense of *is:*

They were afraid to stay any later than ten o'clock.

Which, witch, and sandwich

Which means *what particular one out a group*. It also replaces the name of something previously mentioned:

Which sunglasses do you think look better on me?

I bought the black sunglasses, which looked better.

Witch refers to a *woman with magic powers, or an adherent of Wicca*, or an *unpleasant woman*:

She says she is a witch in the Wiccan church.

My neighbor can act like a real witch when my dog goes in her yard.

Sandwich, on the other hand, is just w-i-c-h!

Who's and whose

Who's is a contraction of *who is:*

Who's there?

Whose means *belonging to someone* or *belonging to something*. It is a possessive form of *who* or *which:*

I work at the desk whose inbox is full.

You're and your

You're is a contraction of *you are*:

You're supposed to keep your promises.

Your means *belonging to you*:

That is your decision.

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Writing Electronic Correspondence

Stacey Corbitt

Chapter Overview

Before there was email, there were letters, memos, and sticky notes. One reason many assignments in this text require students to write business correspondence is because these forms are used daily for communication in virtually every professional job. Letters are still printed or handwritten on paper and mailed; memos might be shuttled through internal company delivery or even hand-delivered; and sticky notes, well, they are still stuck to the front of a document with a quick scribble when letters or memos are not the sender's choice.

Think about the following questions regarding technology in the United States. Discuss the possible answers with your classmates and make your best guess (don't Google!):

1. What year do you think the *first email message* was sent and received? ___________

2. What percentage of adults were internet users *twenty years ago*? ________

3. What percentage of adults do you think *did not use internet* in 2019? _______

The answers to these questions, which are presented within this chapter, may surprise you.

This chapter aims to help students identify the situations for which email is the preferred means of correspondence; to confidently use email within the boundaries of professional etiquette; and to use emails as effective examples of technical writing.

In this chapter, you will explore the use of email from different perspectives and for different audiences and purposes. *Correspondence* describes a document with the purpose of transmitting a message from a specific author to one or more specific recipients. Common forms of correspondence include letters, memos, and emails. Like letters, memos, and other document forms used within the genre of correspondence, *emails* have conventions, ethical issues, and formality levels writers must address adequately. *Emails* are documents, modeled after a memorandum, transmitted between computers through the internet. Engineer Ray Tomlinson is credited with the first successful email in 1971. Notably, *un*like letters and memos printed and mailed or manually routed: emails cannot effectively be shredded.

When should writers use email?

Professionals still use all of the document forms discussed above to correspond countless times every day. The methods of delivery, however, have expanded over time. Business embraced the *facsimile* or *fax* in the recent past as an almost instant system of delivering documents using telephone lines. A *fax* refers to both a machine used to transmit copies of paper documents to a similar machine using phone lines; and the document copy created by such a machine. While regular mail and overnight express services are still appropriate for instances when a physical document or product accompanies a letter, faster methods are the norm for most other correspondence. Already email has largely replaced the fax, using the internet as a faster and more convenient means of sending documents.

Transmittal Emails

A *transmittal* letter or memo serves the specific function of introducing the document(s) containing the important information or message. One easy-to-understand example is the *cover letter* provided with a job application. While some highlights of experience or education may be part of a cover letter, its main purpose is to introduce the recipient to the resume, writing sample, or recommendations being transmitted under *cover* of the letter. Today, it is more likely than ever those same application materials – including the cover letter - will be sent as attachments to an email instead.

Direct Correspondence

In addition to serving in a transmittal capacity for relevant document attachments, emails may also be used in place of a letter or memo. In a work setting, the employer's standard practice regarding use of email as direct correspondence should be followed. For example, some companies use email for day-to-day *internal* business communication, but limit email used as outside correspondence to transmittal purposes only. Such a policy may allow a company to better control sensitive documents and information. It is important that all employees understand and adhere to the policies of an employer regarding internal and external use of email for direct correspondence.

Drawbacks of Email

Imagine for the moment that every person you know has an email account. If you had to share some important information today, who is one person in your life you would most likely not send the information to via email? In the space provided, write that person's name or other identifier and explain the reason(s) why you would hesitate to send them important information in the form of an email. Be thoughtful in your response and write in complete sentences:

The reasons you provided in response to the prompt above may describe some of the disadvantages or shortcomings of email in particular situations.

At the beginning of the 21st century, half of American adults (52%) were internet users. By 2019, the number of people in the same group who were online in some way was up to 90 percent (Anderson, 2019). Since virtually everyone can access email now, why doesn't it work in all situations?

Internet Access Issues

While college campuses and urban areas offer easy access to internet connection, rural and remote areas of the United States may always have little to no connectivity. In locations around the world where satellite or radio communication is the most reliable, email must give way to verbal methods of correspondence to ensure messages sent are received.

Ethical Issues

Workplace writing of all types, including email and even text messages on company cell phones, are legally owned property of the employer. As with most applications of internet use, deleting has no guaranteed effectiveness. Therefore, some internal information exchanges cannot be kept confidential if emailed, so another means of communication is warranted. When in doubt, never send an email that you would not want to see projected on a courtroom screen.

Unintended Consequences

Most situations that prohibit use of email at work are well-documented in official company policies. However, gray areas often present themselves as workplaces and employees evolve. For instance, some companies may have a strong traditional practice of employees meeting frequently or calling each other on the phone to discuss day-to-day business matters. In such a situation, the new employee who is most comfortable relying on email exchanges may be tagged as someone who avoids in-person or voice communication. While it may be an unfair generalization, such a label may be detrimental to one's professional reputation.
Additionally, the risk of misunderstanding is heightened when email is used in place of verbal communication. Nevertheless, today's business trends indicate increasing reliance on electronic communication. The following sections explain the best practices for emailing to assure professional and effective technical writing is achieved.

What makes a good email?

Spend some time reviewing the emails in the "Sent" folder of your university email account.

- Do you think your emails appear to have been carefully prepared, or are they rushed?
- Do you think they "sound" polite and businesslike, or are they casual in tone?

- Does the tone seem any different if you are emailing a professor than if you are addressing a peer?

Note in particular the way your messages begin and end. Writers can become complacent when writing dozens of emails every day, so it is important to examine habits that make messages less effective.

Salutations

Except in some private exchanges with close personal friends or family members, a conventional *salutation* should introduce your emails. Choose from acceptable options like those below:

- *Dear Dr. Smith:*
- *Dear Colleagues,*
- *Hello, Michael,*

Notice that a *colon* might be used when addressing someone you may not already know and presents a slightly more formal tone. In most emails, however, the comma is appropriate end punctuation for a salutation.

Students and instructors may develop comfort and familiarity as many classroom and office hours are spent communicating and working together. Such a level of rapport can benefit both parties, and casual verbal greetings and interactions become the norm. Nevertheless, maintaining a formal tone in written correspondence (email) is an easy way for both parties to ensure clear, consistent records of appropriate professional-level interactions among students and their peers and instructors. Never send a school- or job-related email without a salutation; and, no matter how comfortable you are with Dr. Smith, never begin an email to her with "Hey Prof" as a salutation. In school and work, err on the side of formality.

Closings

All emails should include a formal closing that precedes the author's name and title or e-signature. Notice how emails you receive from professionals often contain a signature block with the writer's name, title, and other contact information. Use a *closing* phrase in which only the first word is capitalized and after which a comma is placed. Some popular closings to consider are listed below:

- *Sincerely,*
- *Cheers,*
- *Best,* or *Best wishes,*

Keep it simple and avoid jokes or anything that could be confusing. Remember: there are always opportunities for you to show your individuality and sense of humor in daily exchanges. Adhering to conventions of professionalism in your educational and business correspondence is just one way to demonstrate your confidence and skill as a communicator.

Specificity and Timeliness

- Subject Lines
  The first opportunity a writer has to set the tone of an email is in the *subject line*. While it generally does not need to be punctuated or written as a complete sentence, one or two general words is inadequate. The subject line creates a reader's first impression of the message and its writer. Some *do*s and *don't*s to consider are listed below:
  - **DO** choose words carefully and use terms specific to the email
  - **DO** consider phrases like "please reply" or "please approve" if the matter is urgent
  - **DO** check spelling and conciseness of the statement or question in the subject line
  - **DO** change the subject line or create a new thread if the topic changes

  - **DON'T** type subject lines in all caps: you may create a false sense of panic
  - **DON'T** forward a message to anyone based on the original subject line without reading the entire thread and the attachments: confidential or private information sent accidentally can't be undone
  - **DON'T** allow your professionalism and *etiquette* (the accepted and expected levels of behavior for a particular situation) to slip when emailing with others who may not be as careful as you are

  You may notice, particularly in the workplace, writers develop a habit of treating the subject line as an afterthought. Resist the temptation to cut corners in that way: instead, be mindful and craft subject lines carefully so the reader receives a clear message from the beginning.

- Reply Emails
  As a college student and a consumer, you have plenty of experience at waiting: you wait for grades to be posted, you wait for weekends (!) and you wait for answers to questions you ask using email. Considering the amount of time many professionals spend using email in daily work, and the amount of work that is completed via email every day, delays can be disastrous.

  Just as clear and appropriate language is important to professionalism, so is timeliness. However, it's important that writers not pursue one (speedy responses) at the expense of the other (writing that is clear, concise, complete and correct). As Renee Dietrich, a retired professor, commented, "… people expect a response faster. There is not much time for reflection or analysis." (Anderson, 2018 p. 70) The struggle we face, then, is making a timely response while also making a thoughtful one.

In the space below, reflect about what *timeliness* means to you. How might you manage your response to an email that you cannot fully address on the same day you receive it?

Accuracy and Completeness

You are probably beginning to understand that email – for all its convenience – is writing that takes a good amount of thought and attention. The important choices in email correspondence are the ones that present you as a careful, clear communicator who values the time and efforts of your peers, superiors, and customers. Following is a partial checklist of considerations to make, in addition to those presented above, before clicking *SEND*:

- ✓ Did you identify and discuss all *attachments*? Are all documents attached?
- ✓ Did you check the spellings of names and formatting of all email addresses?
- ✓ Did you include as CC: parties anyone mentioned by name in the email who is not a recipient?
- ✓ Did you read the entire email chain to avoid sending duplicate or inappropriate content?
- ✓ Did you close your message with a reminder of your request or expectation for response?
- ✓ Did you avoid using "Reply all" unless the writer specifically requested you reply to all?

Chapter Conclusion

Emails have evolved very quickly from quick, rudimentary electronic messages to one of the most important forms of technical writing. In addition to providing cover for transmittal of documents, email is increasingly employed as the actual report or critical correspondence. The instant nature of texting and social media messaging, however, erodes some writers' sense of professionalism when using email, making clarity and appropriate formality in email a challenge. Sophisticated electronic storage means emails are more permanent than their paper predecessors, however. Writers at every level – from students to seasoned professionals – must be diligent in considering the audience for every email.

Activity: What would you do to succeed with integrity?

Read and discuss the following scenario with your classmates as directed by your instructor. Answer the questions and be prepared to discuss your answers in class.

Email Fail

Alicia and Antonio have been paired by their writing instructor to collaborate on a research and report project. They are in the same section of the course, but they have not met each other. Antonio sends the following email to Alicia as an introduction:

TO: Alicia Smith
FROM: Antonio Jones
DATE: January 11, 2021

SUBJECT:

HAY GURRRRL
so r u gunna be aroundafter class wensday
cuz we need t make a plan an whatev to git this project goin
????

Ya so hit me up on snapchat qtBoi1999

1. What first impression do you think Antonio wanted to create?
2. What impression does Antonio's email actually create for you?

With your classmates, discuss the fact that Antonio and Alicia are college students in a writing class who must work as a team. Have you been in a similar situation? What response might Alicia consider? What should she *avoid* doing in her response?

During your discussion with classmates, did anyone suggest Alicia should ask the instructor to pair her with a different partner? Perhaps you thought Alicia should do all the work herself and allow Antonio to get half the credit.

3. Why is neither of the ideas above an appropriate response? Discuss what academic integrity concern(s) may apply.

Now, imagine that Alicia and Antonio's instructor has provided the class with a set of rules to follow when emailing *anyone* related to the project, including the instructor, one's class partner(s), and others who may have source material.

4. Working with a partner in class, discuss the rules that should be applied to writing emails. Write a working thesis statement in the space below that clearly explains <u>the value of following the rules</u> for writing email.

5. Discuss the strengths and weaknesses of the thesis statements developed in class. With your partner, decide if your draft thesis statement needs to be revised: in other words, determine if it is clear and concise. Then, work together to generating some ideas for an *argument*: in the space below, write the claims, reasons, and possible kinds of evidence you might use to support your thesis statement. Be prepared to discuss your responses in class.

Homework

Now that the rules for writing professional email are clear, work with your partner to complete the following tasks:

- First, re-write Antonio's email to Alicia, taking care to follow the conventions for a professional email message. You may want to add some specific details.
- Next, write an appropriate response email from Alicia. Review the information in this chapter and take adequate time and care to address all of the relevant rules.

<u>Technical Writing Document Creation Assignment</u>

Choose a textbook from another class in which you are currently enrolled. Write a one-page summary of one chapter in that textbook, including accurate in-text and reference list citations. Then, write an email to your writing instructor that includes appropriate language and other items discussed in this chapter.

Discuss all of the following in your email:

1. Highlight the most interesting or significant information you found in the chapter.
2. Comment in your email about one or more points from a lecture that related to the chapter. Include the lecturer's name in your discussion.
3. Attach a copy of your chapter summary to your email.
4. Ask your writing instructor to reply with comments about your chapter summary.

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Preparing and Conducting Verbal Correspondence

Stacey Corbitt

Chapter Overview

Correspondence has been generally defined in this textbook as both the act of exchanging letters or memos (including e-mails) with another person; and the documents that are exchanged in such an act. This chapter expands the concept of correspondence to include that which is accomplished verbally as well: specifically, the act – and related documentation – of audible message exchange.

Think about the people in your life with whom you participate in correspondence. When did you last receive a card or letter in the mail (that is, delivered by the postal service)? Who sent it and what was the context or situation?

Now, think about how you correspond with people audibly (<u>not</u> via e-mail or text message) using your phone. Using first or familiar names, complete the table below by including up to 5 people in each category:

Does not have/use email	Does not have/use texting	Professional contact (i.e., boss)	Expects answer or returned call	Uses a "land line" part- or full-time

Finally, highlight the matching name(s) across the columns in the table. What association(s) might you make about the people with similar patterns in the table?

Does the person who last sent you paper mail also appear in the table? If so, what does that information suggest about the person in terms of their preferred methods of correspondence?

As you discuss the responses to the preceding series of questions with your classmates, reflect on the following considerations. Each of these five topics is addressed in this chapter:

- A telephone call may be the most appropriate form of correspondence for a situation
- Traditional phone calls effectively eliminate most non-verbal communication
- Certain situations require correspondence via voicemail exchange
- You must overcome unpredictable technical issues to deliver messages successfully
- Adequate preparation before a verbal correspondence, whether live or recorded, is crucial to successful communication

Direct Verbal Correspondence: Telephone Calls

Text messaging has certainly made quick conversations and notifications more convenient and somewhat less disruptive to the workday. Evidence of this reality includes the now-common business practice of issuing company-owned cell phones to employees. As a result, professionals who count a cell phone among their essential business tools may correspond via text message with colleagues, direct reports, and supervisors frequently throughout a busy day. Text messaging is easy and instant when some or all of the parties to a project are in the field, traveling, working in different locations, or just on different floors of the same office building. Also, for those employees who are new to the professional workforce, text messaging provides a layer of comfort in a familiar task, given that you have likely been texting most of your life.

Sometimes, though, the audience, purpose, and context of a message dictates that an in-person, real-time phone call must be the mode of message delivery. Consider the name(s) you listed on the previous page of this chapter: if you must ask or answer an important question and you know the audience is one of those people who does not text regularly, should you risk the possibility the person will miss – or misinterpret – your message? Keep in mind that the audience's needs and challenges outweigh your preferences, and the answer should become clear.

In addition to what you can determine is the preferred method of correspondence for your audience, the substance and purpose of the message cannot be ignored when deciding whether to make a personal phone call. Questions you should ask about how to communicate time-sensitive information or concerning news, for example, are best asked during your training as you learn about your employer's expectations of members of its professional staff. Because you cannot anticipate every situation in a fluid business, you will benefit by learning you're your supervisor and other mentors their experience and advice about the preferred uses of telephone calls and voicemail. Discuss the following scenarios with your classmates:

1. Michael, a former coworker and acquaintance you have known for several years, has been terminally ill for a few months. Your friend, Sonia, considers Michael one of her close friends. When you learn at work of Michael's sudden passing, you decide it is important that you give Sonia this news right away about her friend. Should you call her directly, or can you send her the news in a text message? Explain your response, and that of your classmates if they differ.

2. Ms. Nguyen, a project manager in your company, is leading her group's effort to bid for a major contract that would be of great financial benefit to your employer. She is also working on-site in Eastern Europe this week, so she has directed you to get in touch with her immediately when the potential client's request for proposals is issued. When you open the express-shipped bid packet mid-afternoon, you know it is the middle of the night in the city your boss is visiting. Will you send a text, call her directly, or send an email? Discuss your options with your classmates and justify your choices.

How are non-verbal cues expressed on a phone call?

When you have a conversation in person, you have access to a variety of indicators for how others are feeling and what they might be thinking as you communicate. Things like facial expressions, eye contact, other body movements and gestures, as well as vocal tones all represent *non-verbal cues* that contribute to how you perceive meaning in your interactions. A group of researchers in France developed a device that remodels recorded speech, allowing for controlled measurement of listeners' physiological responses when they hear people smiling while they talk (Arias, Belin, & Aucouturier, 2018). The report of their research can be accessed here. Even without conducting such a study, however, you can become aware of the subtle ways some non-verbal cues may be transmitted through a telephone call.

Activity: Listen to What You Cannot See

Working with a partner from your class, arrange to have two telephone conversations – yes, regular phone conversations, without video-chat! Follow your instructor's directions regarding the length and topic of your phone conversations. Perhaps you and your partner have a shared interest you can talk about; or, your instructor may provide you with an article, a paper, a video, or a book chapter to read or watch and discuss.

You and your partner should take turns asking questions and recording information about the conversation. In the first call, one person should be asking questions and recording observations about the responses, including non-verbal indicators noted during the conversation. Then, switch roles with your partner so you both can collect data using the following notetaking guide. Use a timer and record the calls if directed by your instructor.

Question or topic	**Timer stamp**	**Perceived facial expression(s)**	**Tone/speed/pitch change**	**Audible non-verbal utterances**

Indirect Verbal Correspondence: Voicemail

If you think about a telephone conversation as being a *direct* correspondence, in which the parties communicate in real time, then an *indirect* correspondence might be represented by an exchange of carefully-crafted professional voicemail messages.

When is it important to leave a voice message?

- Did the person you called specifically ask you to call them?
- Does the person need to receive the message as soon as possible?
- Have you and the recipient been having difficulty reaching each other?
- Did you indicate in a meeting, on a call, or in an email that you would be calling?

Each of the situations noted above, and probably many others, indicate that a clear and complete voicemail message is warranted. A general rule to follow is that, if your attempt to contact the recipient and the message you are attempting to deliver are worthy of a phone call, you should close the communication loop with a voice message.

How can you decide what to say (or what not to say) in a voicemail?

Remember the path to successful communication is making clear, concise, complete, and correct choices. When faced with the need to record a voicemail, you will have a very brief period of time to sort your thoughts, set your tone, relax, and put your best effort forward to present a successful message. Recording a voicemail message is creating a document: similar to written documents, a voicemail can become a permanent record of communication, so it is as important to craft carefully as any other correspondence document. When recording a voice message

Do:	• Speak clearly and state your name and phone number • State the reason for your call very simply • Use a calm, even tone and speak a bit more slowly than you might in an actual phone conversation • Explain how you want the recipient to respond to your message (return the call, send an email) • End the message with your name again, phone number, and the subject of your call
Don't:	• Assume the recipient will recognize your voice • Assume he or she will know the reason for your call • Record any confidential or sensitive information • Hang up without leaving your name, number, and the reason for your call • Ask questions, make demands, or record more than a moment's worth of information

Expect the Unexpected

- Occasionally, technical issues including dropped calls, poor quality recordings, and language barriers arise and cause communication efforts to fail.
- Whether you are corresponding directly in a phone conversation or indirectly via voicemail, recognize you may need to adapt and solve problems to successfully deliver your message.

Being Professional Means Being Prepared

- Make every effort not to hang up on a voicemail prompt: such behavior is unprofessional and inconsiderate.
- Before you make a call, write some notes for yourself about the important details of the message.
- Assume from the beginning that your call might not be answered: be ready to reduce your discussion to a moment of clear one-way communication in a voicemail message.

Chapter Conclusion

The act of communicating verbal messages, whether on a telephone call or a voicemail system, is a form of correspondence that relies on audible exchange. Telephone calls remain a standard method of correspondence in business, although text messaging is gaining popularity. Some situations simply cannot be addressed via text message; still other exchanges via telephone call prove difficult because non-verbal cues are elusive when parties cannot see one another. Regardless of challenges that arise to frustrate your efforts to correspond verbally, keep in mind it is your responsibility to adapt, adjust, solve problems, and communicate with respect and professionalism intact.

Homework

1. Work with your partner from the activity “listen to what you cannot see.” Compare your notes from the exercise and discuss the non-verbal cues you both discerned as a result of your experience.
2. Develop a presentation for an audience of your other classmates. You might make a video or prepare slides for an in-class presentation that informs your peers how to identify the subtle non-verbal cues for which to listen during telephone conversations.

Reference

Arias, P., Belin, P., & Aucouturier, J. (2018, July 23). Auditory smiles trigger unconscious facial imitation. *Current Biology, 28*(14), R782-R783. License: CC-BY-NC-ND-4.0. https://doi.org/10.1016/j.cub.2018.05.084

Producing Responsible Social Media Content for the Workplace

Stacey Corbitt

Chapter Overview

If you are a traditional-age college student, social media has always existed in your world. In fact, some of the earliest social media platforms (ever heard of MySpace?) have been created, evolved, and become extinct in your lifetime. Although sometimes it may seem like "anything goes" is the standard for social media content, Consider the following "Rules of Netiquette" adapted from Jordan Smith's *Communicating at Work* (2019). Note that the rules were originally published at about the same time as the earliest social media sites were launched (in the mid-1990s), in an apparent effort to establish expectations for socially acceptable conduct in the internet's newest playgrounds.

Virginia Shea's Core Rules of Netiquette

- Remember the human on the other side of the electronic communication.
- Adhere to the same standards of behavior online that you follow in real life.
- Know where you are in cyberspace.
- Respect other people's time and bandwidth.
- Make yourself look good online.
- Share expert knowledge.
- Keep flame wars under control.
- Respect other people's privacy.
- Don't abuse your power.
- Be forgiving of other people's mistakes (Shea, 1994 as cited by Smith, 2019).

In fact, to the eye of a technical writer, at least some of the netiquette rules may appear vague and therefore ineffective. While various interpretations of these rules have been referenced over the years, the general consensus seems to be that the overarching standard of *netiquette*, or socially acceptable behavior on the internet, is the good old "golden rule" of treating others as you wish to be treated.

This chapter aims to help students explore the situations in which use of social media platforms may impact an individual's professional identity and career; and to examine the scenarios in which your use of social media may be part of your professional activities. Instead of wagging a finger and imploring you to behave responsibly online, the material included here is intended to empower you so you may prepare for and identify the situations in which your careful and appropriate use of social media platforms may be required as part of your professional duties.

For purposes of this chapter's content, *social media* refers to any of the various internet tools that provide a means of instant publication of content online by an individual or entity. Social media provides services promoting social connections in exchange for advertising revenue, among other income streams.

Take a moment to list each of the social media systems with which you interact, noting different uses you may have for each. Some students, for example, might only use Facebook to communicate with grandparents; while the same students maintain continuous virtual conversations with multiple friends every day using Snapchat. How do *you* use social media?

While individuals frequently maintain user accounts on multiple social media systems, organizations of all kinds are developing more active social media presence on a variety of platforms. It is quite possible you will regularly publish posts on behalf of your employer while representing and maintaining your own professional online profile simultaneously. In fact, depending upon your experience and the online presence and ambitions of a potential employer, an entry on your resume indicating you have "launched, grown, and maintained" social media presence could increase your marketability as an entry-level professional.

Work with a partner to search the internet for a company you might want to work for someday. What you can determine about the company's use of social media to market themselves and their products and services? Does the company have an active presence on multiple social media channels? For example, do they interact on Twitter several times a day? Do they run advertisements on Facebook that are the same ones that appear on the company's website or pop up on television or Google searches? Record your observations below and be prepared to discuss them in class or a written assignment as directed by your instructor.

What is the state of your online identity?

The day your parents or your high school teachers warned you about is fast approaching. Well, *one* of the days.

It's the one where they get to say something like, "What did we tell you about posting pictures on the internet of yourself being unsafe/acting inappropriately/blahblahblah?" Or maybe it will sound more like, "You had better hope the interviewers don't search your Twitter feed/ Facebook timeline/blahblahblah!"

Yes, the day is coming when you might "learn the hard way" that nothing ever really disappears from the internet. You may have heard reference to this phenomenon as a person's *digital footprint*, which is a legend of sorts to the map of one's interactions with all facets of the internet. An estimated 55 to 70 percent of employers search social media profiles of prospective hires in the recruiting and screening process, and chances are high that your digital footprint will be reviewed before you interview for your first professional position. While an investigation of the information you have published about yourself is hardly an invasion of your privacy, you will probably agree that being aware it will happen should motivate you to make good decisions about what you share on social media.

According to authors Mary Madden and Aaron Smith, even 10 years before this textbook was published an awareness of digital footprints and their implications led to efforts by many young professionals to manage their reputations (Pew Research Center, 2010):

> Over time, several major trends have indicated growth in activities related to online reputation management:
>
> - Online reputation-monitoring via search engines has increased - 57% of adult internet users now use search engines to find information about themselves online, up from 47% in 2006.
> - Activities tied to maintaining an online identity have grown as people post information on profiles and other virtual spaces - 46% of online adults have created their own profile on a social networking site, up from just 20% in 2006.
> - Monitoring the digital footprints of others has also become much more common - 46% of internet users search online to find information about people from their past, up from 36% in 2006. Likewise, 38% have sought information about their friends, up from 26% in 2006.

Young adults are the most active online reputation managers in several dimensions. When compared with older users, they more often customize what they share and with whom they share it.

Take a few moments to find out what the internet says about you. Search your name in Google to see what images and other items the engine finds. If you have done such a search in the past, do you now see different information than before? What do you see that may be odd or surprising?

Minimize negative outcomes

Whether or not you have suffered any undesirable effects as a result of your own digital footprint, you can imagine what that particular disaster might look like in your life. Think about any of the news headlines in recent years about public figures, often in the political arena, who have found themselves backpedaling and stammering and attempting to explain, excuse, or justify images and comments they published to the internet with a hasty push of the "send" button. Saying that irresponsible use of social media can spell the end of a promising career is not too much of a stretch in the current political and social climate. Consider the following anecdote adapted and used with permission from SentiOne's blog written by Mathilda Hartnell (11 May 2020):

Gilbert Gottfried - the unfunny comedian

Gilbert Gottfried is an American comedian known for his rather crude brand of humor and his signature shrill voice. He is perhaps best known for voicing Iago the parrot in Disney's Aladdin - and his numerous off-colour jokes and remarks.

Following the 2011 earthquake and tsunami in the Japanese Touhoku region, Gottfried tweeted several crude jokes making light of the situation. While Japan was dealing with massive loss of life and property, as well as the second-worst nuclear meltdown in history, Gottfried was tweeting these gems:

"Japan is really advanced. They don't go to the beach. The beach comes to them."

"Japan called me. They said, maybe those jokes are a hit in the US, but over here, they're all sinking."

Obviously, outrage followed, culminated by Gottfried being fired as the voice of Aflac Duck - he played the part for twelve years at that point. Since then, Gottfried has stayed away from any large-profile appearances, being relegated mostly to low-tier celebrity reality television and podcasting.

Discuss the cringe-worthy example presented above with your classmates. What do you and your peers think about the actions Gilbert Gottfried's employer took in response to his social media posts? Discuss a scenario in your anticipated profession that might be equally damaging, both to the employee and to the company. See if you can find another example of a business's reputation being damaged by an individual employee's actions on social media. Make notes below and discuss in class as directed by your instructor.

Ultimately, the only reliable way to minimize negative outcomes from ill-advised social media interactions is to avoid the negative outcomes altogether – by choosing not to post online.

Optimizing Positive Outcomes

While the risk of causing damage to your reputation and that of your employer is all too real, appropriate and responsible use of social media can be equally powerful in supporting and advancing the vision and the objectives of professionals and the organizations they represent. Recognizing this potential, an increasing number of public and private entities take deliberate steps to establish and develop their own presence on various social media platforms. For example, consider an organization providing emergency humanitarian services, like the American Red Cross: an entity like many others with an extensive presence online at www.redcross.org, as well as active profiles in the main social media channels.

Activity: Checking Out the Public Information

Working with a partner or in a small group in class, search online and review the "About Us>Who We Are" page for the American Red Cross; as well as the published profiles for the same organization on Twitter, Instagram, LinkedIn, and Facebook. Work together to respond to the following questions.

1. What is the organization's *mission*? How do you know?

2. Collect some data about the organization's social media accounts, including: the number of followers they have on each platform; the total number of posts they have made since joining each social network; and an average number of posts they make in a week.

3. Review the posts uploaded by the organization in each of its accounts and discuss your observations as a group. What, if anything, do you find remarkable about the organization, its online presence, its communication, or other aspects you observed? What questions arise in your discussion?

4. Identify an *example* in the organization's posting history that demonstrates the group's commitment to its stated mission. If you were responsible for their social media channels, explain how you might improve the effectiveness of the Red Cross online.

Professional Identity: Making the Necessary Switch

Do you agree that you and your peers join most social media networks (with the possible exception of LinkedIn) for entertainment purposes rather than for conducting business or supporting your education? This chapter is not intended to disrupt your use of social networks for the purposes you choose. Preparing for a professional career may include refining your use of online social platforms in order to tidy up your digital footprint: however, it doesn't mean you can't socialize with your online acquaintances. Just go forward armed with the knowledge that anything you upload to the internet - even after you remove the content - will be forever attached to you as its author, so it is critical that you make good choices.

In the chapter of this textbook that covers electronic correspondence, you learned that the easiest way for both parties to a communication to ensure clarity is maintaining a formal tone in written exchanges. Follow the same approach whenever you are engaging with social media in a capacity where you either: 1) represent your employer and their interests; or 2) may be interacting with others who have a professional relationship with you or your employer. No matter how comfortable you are with your colleagues, college friends, or members of the management team, err on the side of formality in all communication with others you met through business connections.

Chapter Conclusion

As a college student who is developing the skills and experience to proceed into a professional career, you are in an excellent position to prepare for your future success. Now is the time to practice diligence in choosing how you want to be represented on the worldwide web. You are most likely already appearing in search results on Google: so, if you are concerned about any social media or other content you suspect could be detrimental to your reputation, it's time to start cleaning up your digital footprint.

In much the same way that you want to be represented in a positive light on social media, your employer and other professional connections depend on their own solid and unwavering reputations. To the extent you are responsible for producing social media content that represents your organization, use extreme caution and keep the mission and values of the organization clearly in sight. Remember too that, even if you are acting in a personal capacity, your own professional reputation is too valuable to scuttle because of haste or inattention.

Homework

Draft a document in the form of an email addressed to your peers. Craft the email message to include what you deem to be the *Top 5 things to do* – and the *Top 5 things to avoid* – starting today to insure the readers will maintain social media accounts that support their efforts to obtain professional employment.

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Unit VIII: Producing Instructions, Short Reports, and Presentations

Writing Instructions

Dawn Atkinson

Chapter Overview

This chapter aims to help you learn to write *instructions*, documents that explain in step-by-step fashion how to perform a task (McMurrey, 2017a, para. 3). Instructions exist for any number of things, and in your home life, you may have come across driving directions; seed planting guidelines; assembly, care, and repair directions; first aid procedures; and directions for playing games. Instructions are also produced in the workplace, to help employees, clients, and users complete tasks efficiently, safely, and confidently. This chapter discusses points to keep in mind when writing instructions and provides several example sets of instructions as artefacts for analysis, critique, and guidance.

Before we begin to explore the genre of instructions in depth, think for a moment about instructions you have come across and how easy they were to use. Now, answer the following question: As a reader, what do you want from a set of instructions?

Keep these ideas in mind when writing a set of instructions to ensure your document is clear, complete, concise, correct, and usable.

Planning a Set of Instructions

Before you begin writing a set of instructions, it is crucial to take several planning points into consideration to ensure your document successfully addresses its readers and is straightforward to use. The following paragraphs discuss these planning points in some detail.

<u>What task will the instructions describe?</u>

The purpose for a set of instructions is linked with the task described in the document, so you will need to identify this task when planning. Ultimately, individuals who use the instructions should be able to perform the task safely and without complication. With that idea in mind, do you anticipate readers will skip over important sections of the document to access the steps they need to complete the task? If so, what information can you foreground or signpost so readers see it? Can you group sections of information under headings to make the document easy to navigate? What other approaches can you use to highlight vital information for readers, information that will help them achieve the document's purpose by completing the task? For instance, consider how bold text, colored text, recognizable *icons* (visual symbols that signify meanings), and illustrations cue readers' attention when used purposefully and sparingly.

Who is the audience, and what do those readers need from the document?

As with any piece of technical writing, think carefully about who will use the document—readers, in other words. You will likely be able to envision a target group of readers who will use the document to perform the task it describes; however, you may also anticipate other readers who will be interested in or have a stake in the document's production and use: employers, workplace supervisors, and legal entities, for instance. Also consider whether you need to state the target audience for the instructions on the document: for example, instructions may be written for children or adults, for individuals required to have licenses or certifications to perform activities listed in the instructions, or for beginners or people more familiar with the task described in the instructions, and you may need to explicitly identify such details on the document.

As you consider the audiences for a set of instructions, also try to anticipate what those individuals need from the document to make it reader friendly and uncomplicated to use. For instance, if you plan to use specialized terms when writing the instructions, will readers know what the language means, or will you need to define it? In addition, how will readers' backgrounds, ages, or levels of education affect the document's content and language?

What steps are required to perform the task?

Think carefully about the steps required to complete the operation described in the instructions. Do some of the steps need to be broken into sub-steps or grouped together under subheadings to boost reader understanding or to encourage their completion? Do certain steps need to occur simultaneously for the entire task to be completed successfully?

What items are needed to complete the task?

The items needed for a task might include materials, ingredients, or equipment, and you will need to consider whether specific quantities or types of those items are required. For instance, if you are writing a recipe that calls for corn meal, do you need to specify that it should be white or yellow?

How long will the task take to complete?

Work out how much time is needed for the task described in the instructions. Will the time vary for different groups of users, such as beginners and those with more experience? Will different times be needed for different elements of the instructions? Recipes, for instance, often list times required for both preparation and cooking. Do certain steps in the task require specific amounts of time to complete? Does the task need to be performed at a certain time?

What harm could result from undertaking the task or its steps?

If the instructions task or any of its steps could potentially lead to harm, you have an ethical and legal responsibility to say so in the document, to make this information prominent so it can be easily seen, and to make readers aware of the information before they undertake the activity. McMurrey (2017b, "Guidelines for Specific Types of Notices") identifies four specific types of notices that can be included in instructions to indicate potential harm.

> **Note**—To emphasize points or remind readers of something, or to indicate minor problems in the outcome of what they are doing.
>
> **Warning**—To warn readers about the possibility of minor injury to themselves or others.
>
> **Caution**—To warn readers about possible damage to equipment or data or about potential problems in the outcome of what they are doing.
>
> **Danger**—To warn readers about the possibility of serious or fatal injury to themselves or others.

Whether the harm might be to safety, health, wellbeing, property, or equipment, you must disclose this information and make an intentional effort to draw readers' attention to it so that it is immediately identifiable. Foreground the information at the top of the instructions, before the steps begin, and reiterate it as necessary for individual steps that could possibly cause harm. In addition, think of ways to draw readers' attention to the information, for instance through the judicious use of recognizable icons, bold or colored text, or exclamation points. Unlike other technical and academic writing genres, such as reports, letters, memos, and essays, exclamation marks are acceptable in instructions when used to highlight harm notices. Lastly, never try to bury information about potential harm in small print or at the end of a document since readers will probably overlook it in those situations. Remember that you have an ethical and legal responsibility to clearly and openly alert readers to potential harm when writing instructions.

What visuals might help readers perform the task?

Visuals can be used in various ways in instructions—to illustrate ingredients, supplies, equipment, or steps or to show what a finished product looks like, for example—and in all instances, they should be integrated in a purposeful, logical, and cohesive way to be effective. To integrate visuals in a purposeful way, select ones that are clear, easy to follow, and practical rather than decorative, and incorporate them with the goal of helping readers successfully complete the instructions task. In addition, adhere to the following guidelines to ensure your visuals are integrated into the document in a logical way.

- Place each visual beside or after the step it illustrates so readers can easily associate the two components.
- Label each visual: label tables as tables and figures as figures.

- Number each visual: the first table to appear is Table 1 and the first figure is Figure 1.
- Compose a specific and informative caption for each visual, one that succinctly describes what the visual portrays.
- Cite and reference each visual taken or adapted from an outside source.
- Refer to each visual by its label and number in the text before the visual appears.
- Explain each visual in the text before it appears.

Also consider sandwiching each visual in between text so it flows into the document in a cohesive way. To do so, explain the visual in the text before it appears, provide the visual, and then comment on the visual. This technique helps to ensure that visuals are never left on their own at the top or bottom of a page without explanation or context.

What might help readers if they encounter difficulties when using the instructions?

Since readers should be at the forefront of your mind when composing instructions, consider how you can help them overcome difficulties when completing the instructions task. Specifically, do you need to include a troubleshooting section that identifies possible issues and how to resolve them? Though you may find it challenging to pinpoint reader difficulties on your own, a usability test can help in this regard. *Usability*, in this case, refers to how straightforward a piece of communication is to use in relationship to the task it describes or its readers' goals, although usability can also be tested on products. Usability is an important consideration for persons, companies, governmental agencies, and non-profit organizations that wish to produce documents that are functionally sound, easy to navigate, approachable in terms of design, accessible to all readers, and centered around readers' needs. Ultimately, usability tests can lead to increased user productivity and satisfaction and, consequently, to enhanced reputation for the entity that produced the document.

While usability tests can be conducted in various ways, here are two approaches that you may decide to implement when developing instructions. Ask another person (ideally, several people) to work through the instructions document to perform the task described therein while you are present. The person you select should be among the target readership you have identified for the document. Observe the user during the exercise, and make notes on content or steps the user has difficulty with. For instance, if the user takes an unanticipated amount of time to complete a certain step, this observation can indicate a usability issue with the document and should be noted down. Afterwards, interview the user about his or her experiences with the document. You might use the following questions as a starting point for the interview.

- What did you think of the document as a whole?
- What did you think of the document's title and headings?
- How noticeable was the information about potential harm?

- What parts of the document were easy to follow?
    - What made them so?
    - What could be done to make these parts even more straightforward?
- What parts of the document were hard to follow?
    - What made them so?
    - What could be done to improve these parts?
- What did you think of the visual(s) used in the document?

After the observation and interview sessions are finished, use the data you collected to revise your instructions for the benefit of readers.

Organizing a Set of Instructions

To be readily useable, a set of instructions must be well organized. To achieve this goal, plan to develop a specific and informative title and introduction, body, and conclusion sections for the document.

<u>Writing the title and introduction section</u>

The title for a set of instructions should identify the task described in the instructions and be clear and concise. Indeed, readers should recognize what the document is about just by reading its title: for example, you likely know what to expect when reading the title "How to Format a Memo." Place the immediately recognizable title before the introduction when writing instructions.

The introduction section should provide enough contextual information so that readers know what task the set of instructions describes, the meanings of key terms used in the document, if the task needs to be performed under certain conditions, the intended audience for the document, the time needed for the task, and whether any harm could result from undertaking the activity or any of its steps. These items are listed in no particular order, and you may be able to combine some of them in your introduction to keep it concise.

The introduction should also list all materials, equipment, or ingredients needed so that users can assemble these items before beginning the task described in the instructions. Consider using a bullet point list to facilitate easy reading; bullet points do not indicate sequential order or order of importance, so they are generally appropriate for a list of supplies. Finally, when compiling the list, be exact about the types and amounts of items needed.

Writing the body section

The body section of the document needs to clearly explain how to accomplish the task described in the instructions. To this end, consider numbering the steps of operation required for the task, and list just one operation per step to help readers follow along. If certain steps require sub-steps to complete, letter the sub-steps to indicate a sequential order or bullet them if they do not specify a sequential order, and place them underneath the main steps. As with any list, sub-divide only as needed: present at least two sub-steps underneath a main step to justify the division. Use complete sentences—that include the article words *a*, *an*, and *the*—and the active voice for the steps and sub-steps so the procedures are easy to understand; to maintain the active voice and parallel structure in the list, give readers polite commands by beginning each step with a present tense verb (e.g., "*Press* the red button three times"). If readers need specific details about durations, measurements, or distances to complete steps, then include that information. Lastly, write for target readers by using language and terms they can readily understand.

Writing the conclusion section

The conclusion section should tell readers what to expect once they have completed the task described in the instructions. Recipes, for example, frequently include photos of finished dishes, while seed packets often say when gardeners can expect to see plant growth or blooms. If you anticipate readers will need additional information to complete the task confidently, you might include a troubleshooting or tips section in the conclusion.

Analyzing and Critiquing Instructions

Look carefully at the instructions in Figure 1, which describe an exercise regimen designed to help elderly people avoid falls (STEADI, 2017). Afterwards, answer the questions listed. Be prepared to discuss your answers in class.

- How does Figure 1 follow the guidelines discussed in this chapter?
- How does Figure 1 diverge from the guidelines discussed in this chapter?
- What are the positive and negative features of the instructions in Figure 1?
- How could the instructions in Figure 1 be improved?

RECOMMENDED EXERCISE

Chair Rise Exercise

What it does: Strengthens the muscles in your thighs and buttocks.

Goal: To do this exercise without using your hands as you become stronger.

How to do it:

1. Sit toward the front of a sturdy chair with your knees bent and feet flat on the floor, shoulder-width apart.
2. Rest your hands lightly on the seat on either side of you, keeping your back and neck straight, and chest slightly forward.
3. Breathe in slowly. Lean forward and feel your weight on the front of your feet.
4. Breathe out, and slowly stand up, using your hands as little as possible.
5. Pause for a full breath in and out.
6. Breathe in as you slowly sit down. Do not let yourself collapse back down into the chair. Rather, control your lowering as much as possible.
7. Breathe out.

Repeat 10-15 times. If this number is too hard for you when you first start practicing this exercise, begin with fewer and work up to this number.

Rest for a minute, then do a final set of 10-15.

CDC
Centers for Disease Control and Prevention
National Center for Injury Prevention and Control
2017
STEADI Stopping Elderly Accidents, Deaths & Injuries

Figure 1. Instructions for an exercise routine intended to help the elderly avoid falls

Now read through the instructions in Figure 2 (Bennett, 2018), which explain how to adjust to wearing a continuous positive airway pressure (CPAP) machine, a device designed to improve breathing function by keeping a person's airway open. Afterwards, answer the questions listed. Be prepared to discuss your answers in class.

- How does Figure 2 follow the guidelines discussed in this chapter?
- How does Figure 2 diverge from the guidelines discussed in this chapter?
- What are the positive and negative features of the instructions in Figure 2?
- How could the instructions in Figure 2 be improved?
- How does Figure 2 compare with Figure 1?

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Getting Used to Your (C)PAP Machine (Short)

The goal of these instructions is to help you become more comfortable with Positive Airway Pressure (PAP) while you are awake so that you can learn how to sleep easily with PAP. For now, do not try wearing PAP during sleep until you are comfortable with it during the daytime. If your machine has a RAMP button, you may use this function to keep the pressure at a low level during practices.

1. **Turn the PAP airflow on:**

   Hold the mask over your nose and practice deep breathing with the machine on while you are awake. While you are doing this, keep your mouth closed and breathe regularly through your nose. Start with short periods of time (1-5 min) and gradually build up to longer periods of time. Do not use the straps.

2. **Turn the PAP airflow on and wear the mask over your nose with the straps on your head.**
   - Practice deep breathing with PAP on while you are awake.
   - Wear PAP for longer periods of time until you can have it on for 15-20 minutes comfortably.
   - Move the unit into your bedroom and hook up the mask and tube to the machine
   - Fill the water reservoir with distilled water to the appropriate line.

3. **Try resting in bed during the day with your PAP machine and mask on.**

   The goal is not necessarily to sleep, but to rest comfortably in your bed with the PAP on.

- When you are sleepy at bedtime, practice deep breathing. Place the mask over your nose, pull headgear over your head, turn the machine on (or your machine may start automatically depending on settings), and lie down to sleep.
- If you feel claustrophobic or uncomfortable at any step, go back to the previous step until you feel comfortable. Then, proceed to the next step.

Please do not hesitate to call the Sleep Disorders Center at (810) 263-4000 if you have questions or would like to discuss this in more detail. You may also call that phone number if you do not hear from us about your follow-up clinic appointment in the near future.

Disclaimer: This document contains information and/or instructional materials developed by Michigan Medicine for the typical patient with your condition. It may include links to online content that was not created by Michigan Medicine and for which Michigan Medicine does not assume responsibility. It does not replace medical advice from your health care provider because your experience may differ from that of the typical patient. Talk to your health care provider if you have any questions about this document, your condition or your treatment plan.

Author: Kathryn Bennett, RN, BSN, MSCN

Department of Sleep Medicine
CPAP Desensitization instructions
- 2 -

Figure 2. Instructions for acclimating to the use of a CPAP machine

What can you take away from this activity that may help you when writing a set of instructions?

Designing a Set of Instructions

Beyond the formatting considerations already discussed in this chapter, also take into account the visual design principles of contrast, repetition, alignment, and proximity, identified by author and visual designer Robin Williams (2015, p. 13), when developing a set of instructions to help maximize the document's visual appeal and usability.

> **Contrast**—Content that is different in function or importance is also visually different.
>
> **Repetition**—Design elements are repeated to establish consistency.
>
> **Alignment**—Similar items are lined up with one other.
>
> **Proximity**—Related elements are placed near one another.

Design that integrates these principles prioritizes reader perception and document functionality.

The instructions in Figure 3 (Public Health Preparedness and Response, 2016) combine text and visual content to explain how to prepare a home for a coming hurricane. Review the document, and answer the following question about it: How does the figure employ contrast, repetition, alignment, and proximity? Be prepared to discuss your ideas in class.

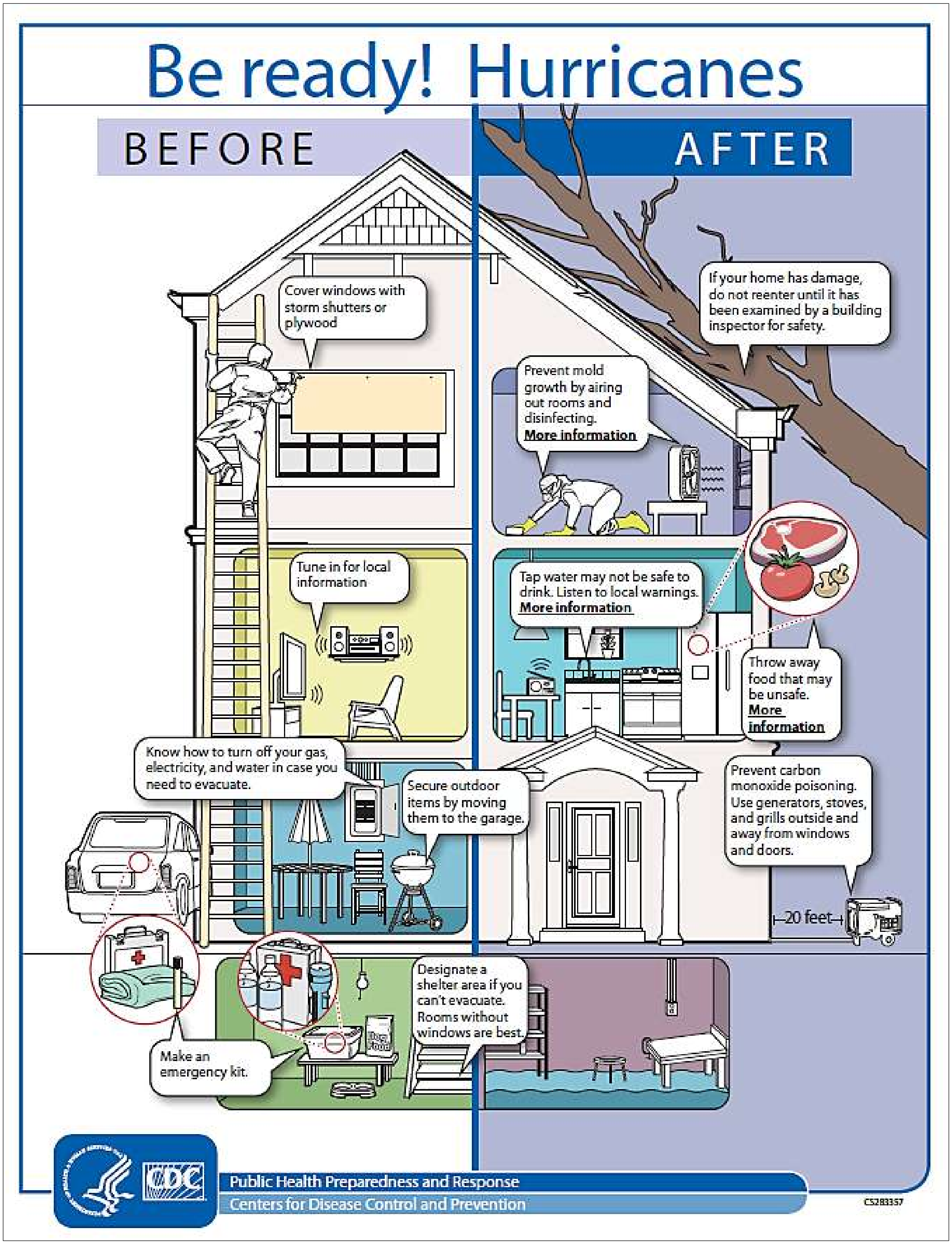

Figure 3. Instructions that describe how to prepare a home for an approaching hurricane

Having looked at Figure 3 carefully, answer the following question about the instructions: What suggestions might improve the document's design and functionality? Be prepared to discuss your response in class.

Now review Figure 4 (Robert Gillespie Academic Skills Centre, University of Toronto Mississauga, n.d., p. 5), time management instructions that combine text and visual content. How does the figure employ contrast, repetition, alignment, and proximity? How does Figure 4 compare with Figure 3? Be prepared to discuss your ideas in class.

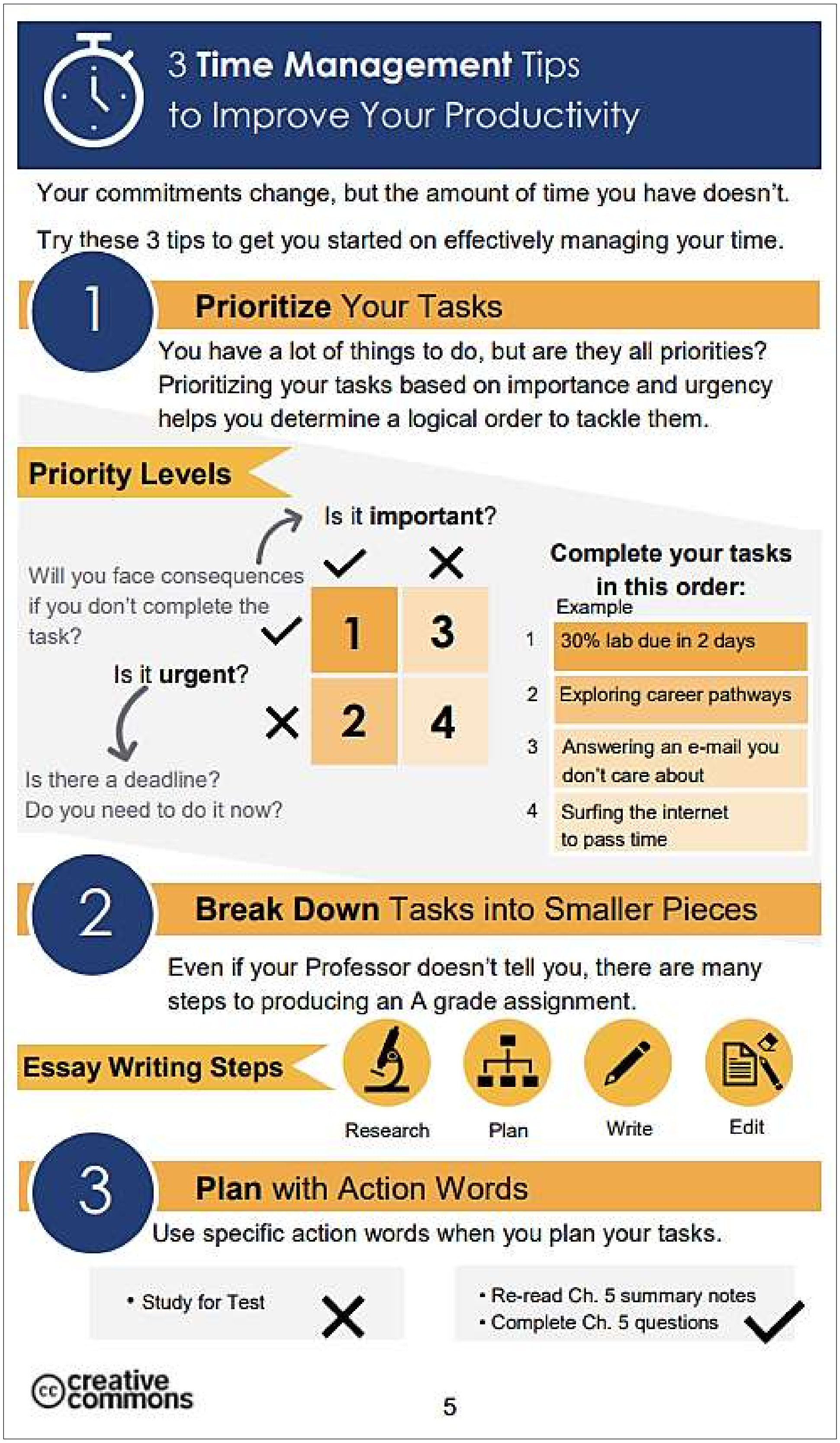

Figure 4. Instructions for managing study time effectively

What suggestions might improve Figure 4's design and functionality? Be prepared to discuss your response in class.

What can you take away from this activity that may help you when writing a set of instructions?

Chapter Wrap-Up

Like any technical document, effective instructions require thoughtful planning, organization, and design, as this chapter explains. These efforts, in turn, have the potential to bring about positive outcomes since instructions can help readers complete tasks efficiently, confidently, and safely when they are developed with care.

Activity A: Thinking about Word Use in Instructions

Unlike some other technical writing genres, such as formal reports, the word *you* is acceptable in instructions. Why is this so? Answer this question, and be prepared to discuss your response in class.

Activity B: Finding and Critiquing a Set of Instructions with a Harm Notice

Locate a set of instructions that includes one or more notices about potential harm, either to safety, health, wellbeing, property, equipment, or a combination of these, and answer the following questions about the document.

- How clear was the notice about possible harm?
- How easy was the notice to detect?
- What, if anything, might help readers to better distinguish the notice from the rest of the instructions so it is instantly recognizable?
- What can you take away from this activity that might help you when writing a set of instructions?

Be prepared to discuss your answers in class.

Activity C: Creating a Checklist to Use When Writing and Revising Instructions

Using the information presented in this chapter and what you learned from activities A and B, create a checklist to use when writing and revising instructions. Be prepared to discuss your checklist items in class.

Homework: Composing a Set of Instructions

Prepare a set of clear, concise instructions that describe a task with which you are familiar; select a task from your personal or professional life that can be completed in five to 10 steps. The instructions should be no more than two pages in length and include at least one visual. Although you can incorporate digital photos you have taken into the document without acknowledging their source, you must cite and reference any outside material—including visuals—you use in the instructions. Unless you are told otherwise, employ block style when designing the document to maximize space: single space the document, left align its text, and insert one blank line in between paragraphs.

Remember to call upon this chapter for guidance when producing your assignment.

- Use the subheading questions in “Planning a Set of Instructions” to formulate ideas when starting the instructions assignment.
- Use the checklist you developed in Activity C to write and revise the instructions.
- Use the McNamee (2019) handout on the next two pages when deciding which articles (*a*, *an*, or *the*) to insert into your instructions document.
- Use the information in “What Might Help Readers if They Encounter Difficulties When Using the Instructions?” to usability test your document.

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Articles

A, An, & The

Articles are words used in conjunction with nouns that allow the user to determine the definite or indefinite status of a noun.

Articles in English are "a", "an", and "the."

In STEM fields, articles are particularly important for distinguishing between known (definite) and unknown (indefinite) nouns. For example, "the reaction" (definite) would assume the reader knows which exact reaction the paper is describing, whereas "a reaction" (indefinite) would be a reaction that may not have been previously referred to or might be a generalization.

The use of "an" is reserved for nouns that start with vowel sounds.

Zero Article

In addition to definite and indefinite articles, a "zero article" also exists. This is the absence of an article before a noun that is a general, indefinite concept or is a plural noun. For example, "math" is a noun that is general and no article needs to be applied; likewise, "reactions" is a plural, general concept that does not require an article.

The zero article differs from an indefinite article as zero-article nouns are typically uncountable, while indefinite nouns are just not specified. For example, "an equation" is an indefinite noun as we do not know what equation the writer is referring to, while "equations" is plural and, in this case, conceptual as we do not have an identified quantity, so this noun has no article.

Determining Definite & Indefinite Articles

To determine whether an article is definite or indefinite, first determine if the noun is countable or uncountable. If it is uncountable, use the zero article. If it is countable, determine if this is the first usage or if the noun refers to a non-specific usage. If the noun is non-specific or if this is the first time using the noun, it is indefinite and an indefinite article must be used. If it is countable and specific, the definite article should be used.

A flowchart is provided to make this easier.

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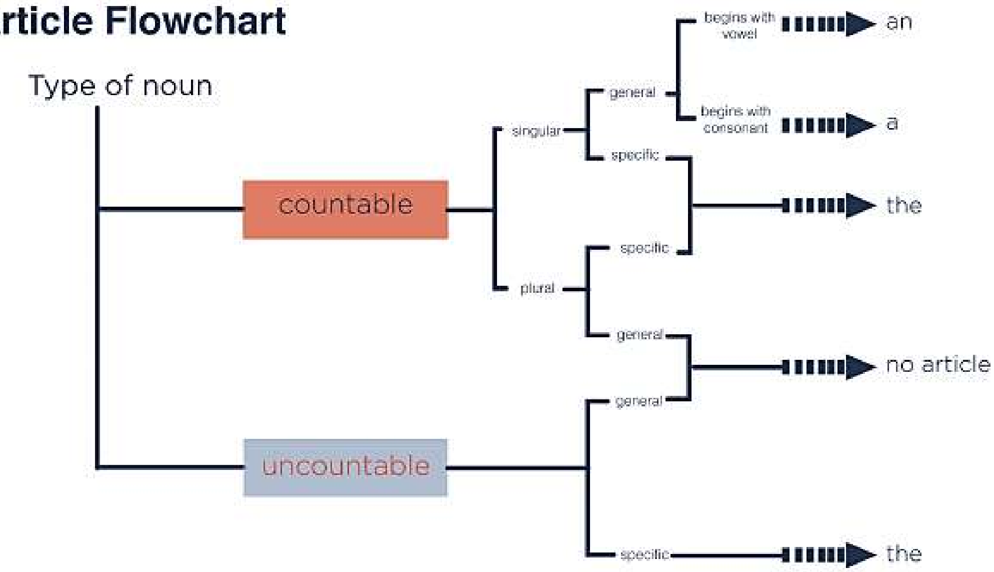
Article Flowchart



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Writing Incident Reports

Stacey Corbitt

Chapter Overview

Without exception and across the globe, every workplace in your professional career is likely to apply considerable value to safety, health, and security of the business and all of its assets. In the United States, the Occupational Safety and Health Administration ("OSHA") is the regulating and enforcement entity whose mission is "to ensure safe and healthful working conditions for working men and women by setting and enforcing standards and by providing training, outreach, education and assistance" (https://www.osha.gov/aboutosha, n.d.). The importance of recordkeeping in the areas of safety and health cannot be overstated; and all employees are responsible for some level of preparing safety documentation. This chapter aims to provide you with tools for success in writing a workplace-specific genre: the *incident report*.

Think about your own experiences, at work or in another capacity. What training have you completed related to safety, security, or health? Why do you think the organization provided the training? How did you benefit from being trained? How did the organization benefit? Be prepared to discuss your experience in class.

Preparing to Write an Incident Report

Employers often include training on their company safety program as part of new employee orientation: as a result, as you begin or continue your professional career, you will become familiar with your company's requirements and your responsibilities for documentation of accidents and other reportable incidents. This section provides information about typical company procedures you may encounter.

Before Anything Happens

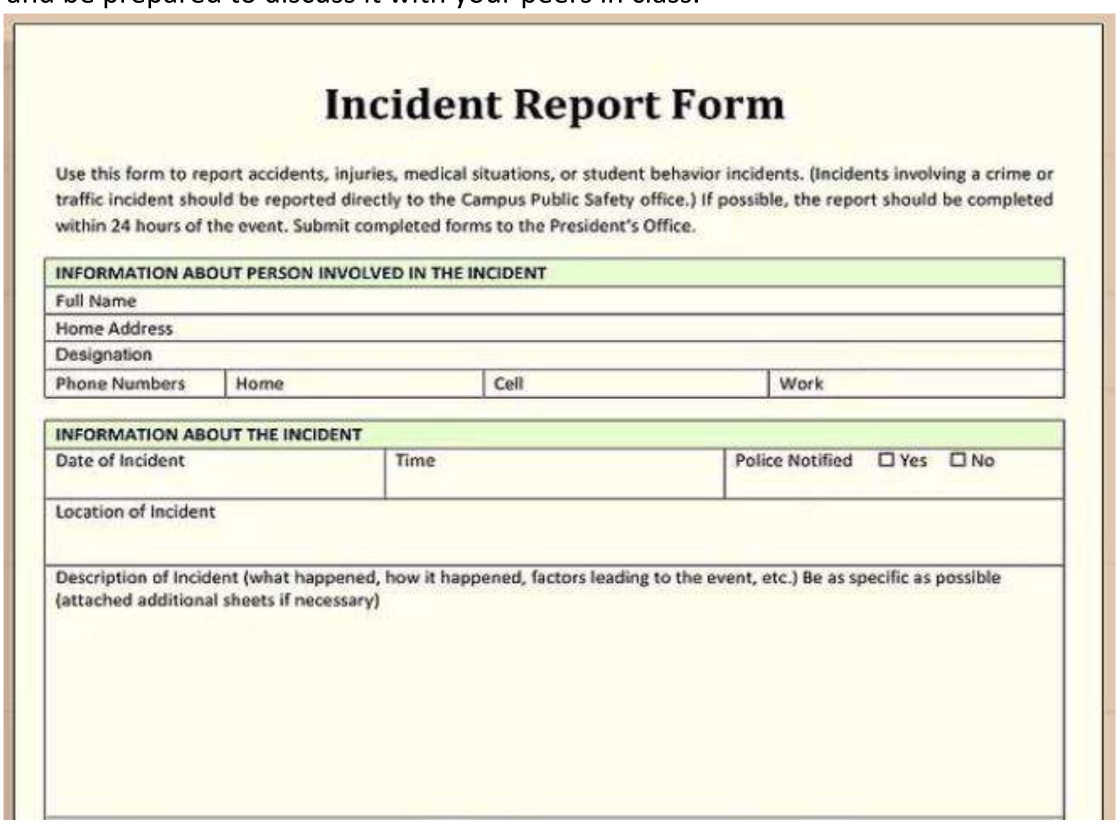
Information collection procedures should be provided in the workplace safety and health plan handbook or other document, and may be accompanied by one or more forms designed to capture all initial information about the incident. Always be familiar with the incident reporting procedures required by your employer so you are prepared to address your responsibility in clear, complete, concise, and correct documentation.

After Something Happens

First, in the event you are involved in or witness an accident or other event that is outside the normal and expected course of business while in the workplace, be prepared to collect and recall detailed information according to a plan specified by your employer. It may be critical to make observations, ask questions, write information down, make sketches, and take photographs as soon as safely possible following any emergency procedures. Familiarity with the employer's safety protocols ensures you can minimize further risk to individuals and to the company.

Collecting Important Data

Perhaps your career will provide opportunities for you to conduct in-depth investigations for your employer, and you may prepare lengthy, detailed investigation reports addressing things like root causes and policy changes. Regardless of his or her position within the company, however, each employee has a responsibility to work safely and to report incidents or unsafe conditions. As noted above, many times the latter level of reporting amounts to completing one or more specialized forms similar to the one provided in Figure 1 below. Review the example form and be prepared to discuss it with your peers in class.



Incident Report Form

Use this form to report accidents, injuries, medical situations, or student behavior incidents. (Incidents involving a crime or traffic incident should be reported directly to the Campus Public Safety office.) If possible, the report should be completed within 24 hours of the event. Submit completed forms to the President's Office.

INFORMATION ABOUT PERSON INVOLVED IN THE INCIDENT			
Full Name			
Home Address			
Designation			
Phone Numbers	Home	Cell	Work

INFORMATION ABOUT THE INCIDENT		
Date of Incident	Time	Police Notified ☐ Yes ☐ No
Location of Incident		
Description of Incident (what happened, how it happened, factors leading to the event, etc.) Be as specific as possible (attached additional sheets if necessary)		

Figure 1. Partial initial incident report information collection form (Sandvick, 2020)

The facts about an incident are collected in the form shown in Figure 1 using *reporters' questions:* that is, those questions that elicit *what*, *where*, *when*, *who*, *how*, and *why* information. Additionally, certain incident types require visual media representation of details. Working with a classmate, discuss a parking lot collision or other incident involving at least one driver and vehicle. Besides answering the questions provided in Figure 1, what other kinds of visual information could you collect and provide to help readers understand the incident?

In the event your organization does not have a readily available data collection form to use, the reporters' questions may provide sufficient guidance for you to collect incident details. In any case, the two important goals to meet in preparing to write an incident report are as follows:

- Collect the facts about and observations of the incident as soon as is safely possible, distinguishing between your own observations and those relayed to you by other witnesses; and
- Create any photographs, diagrams, and other visual data as soon as it is safe to do so.

Organizing and Drafting an Internal Incident Report

Your organization's policies and procedures, together with your position, will determine the next steps you should take in the incident reporting process. As an intern or junior-level professional, your responsibility may end with completion and submission of the reporting form(s). If you have management or executive authority, you are more likely to be tasked with writing a complete narrative incident report. Finally, if you have primary responsibility for health, safety, and/or security within your workplace – perhaps you are a safety coordinator – you may need to collect the initial witness report forms; conduct complete investigations; prepare one or more formal narrative reports; make training or disciplinary decisions; recommend policy changes; and prepare official reports for state and federal authorities.

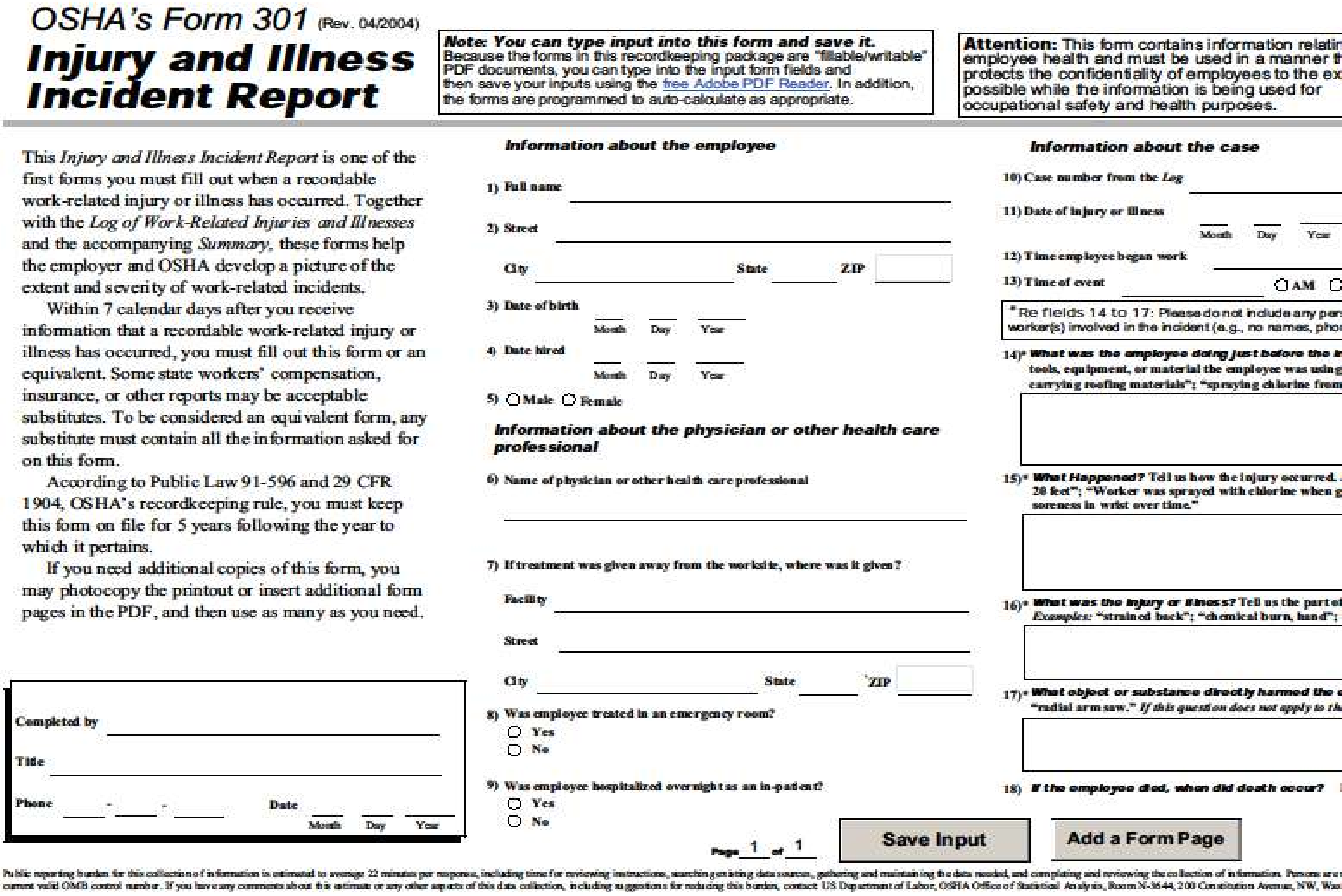
Understand that the specific requirements of your employer may be unique to your business and to the type of workplace incident being reported. Table 1 below contains questions you must answer in the drafting process: discuss the scope of and reasons for those questions.

Table 1. Considerations for organizing and drafting your report

Who?	Who is the audience for your report? Who was involved in the incident? Who are the witnesses?	Keep in mind you may be writing a memo to your supervisor, who may elevate the memo up his or her chain of command *or* outside the organization. Non-employee witnesses might not cooperate later, so get their information at the scene of the incident right away if you can.
What?	What happened? What steps were taken before, during and after the incident? What injuries or property damage occurred?	Provide facts only in this detail: avoid writing anyone's suspicions, judgments, opinions, or assessments of actions or conditions. Provide only objective observations in the report. Write as complete an account as possible.
When?	What date and time did the incident occur? When did related activity at the site end?	Consider writing internal report memos with a series of statements in the narrative indicating the approximate time events took place. This method should be used only if the writer has confidence that recorded times are accurate.
Where?	Where did the incident happen? What is the address or mile marker number? What are the GPS coordinates of the location?	Be as specific as possible in describing the location and include maps, aerial photos, and floor plans when relevant and helpful. Details of weather should be noted if the incident occurred outdoors. Discuss lighting and other environmental conditions if significant.
Why?	What reasons were given by the parties involved for any actions taken or other behaviors or decisions?	Many people may offer their theories about what happened and why: be very careful to include only first-hand statements from witnesses with direct knowledge of the events. Do not include theories, suspicions, or speculation by yourself or others in the incident report.
How?	How was the location accessed? How were safety protocols followed? How are you expected to report?	Draft your narrative report in a memo format unless another form is required. Confirm whether you are responsible for recommending discipline and policy changes: do not overstep employer expectations.

A Word About Preparing External Incident Reports

As noted in the introduction, OSHA may have regulatory authority over your employer. In that event, you may be required to report the details of a workplace accident or other incident according to the specifications of OSHA and in a format they prescribe. As you review Figure 2, notice the information required by the report form. How does it compare to the information provided in a typical internal incident report as represented in the previous section of this chapter? What can you tell about OSHA's priorities from its reporting form?



OSHA's Form 301 (Rev. 04/2004)

Injury and Illness Incident Report

Note: You can type input into this form and save it. Because the forms in this recordkeeping package are "fillable/writable" PDF documents, you can type into the input form fields and then save your inputs using the free Adobe PDF Reader. In addition, the forms are programmed to auto-calculate as appropriate.

Attention: This form contains information relatin employee health and must be used in a manner t protects the confidentiality of employees to the ex possible while the information is being used for occupational safety and health purposes.

This *Injury and Illness Incident Report* is one of the first forms you must fill out when a recordable work-related injury or illness has occurred. Together with the *Log of Work-Related Injuries and Illnesses* and the accompanying *Summary*, these forms help the employer and OSHA develop a picture of the extent and severity of work-related incidents.

Within 7 calendar days after you receive information that a recordable work-related injury or illness has occurred, you must fill out this form or an equivalent. Some state workers' compensation, insurance, or other reports may be acceptable substitutes. To be considered an equivalent form, any substitute must contain all the information asked for on this form.

According to Public Law 91-596 and 29 CFR 1904, OSHA's recordkeeping rule, you must keep this form on file for 5 years following the year to which it pertains.

If you need additional copies of this form, you may photocopy the printout or insert additional form pages in the PDF, and then use as many as you need.

Completed by

Title

Phone - - Date Month Day Year

Information about the employee

1) Full name

2) Street

City State ZIP

3) Date of birth Month Day Year

4) Date hired Month Day Year

5) Male Female

Information about the physician or other health care professional

6) Name of physician or other health care professional

7) If treatment was given away from the worksite, where was it given?

Facility

Street

City State ZIP

8) Was employee treated in an emergency room?
Yes
No

9) Was employee hospitalized overnight as an in-patient?
Yes
No

Page 1 of 1

Save Input

Add a Form Page

Information about the case

10) Case number from the *Log*

11) Date of injury or illness Month Day Year

12) Time employee began work

13) Time of event AM

* Re fields 14 to 17: Please do not include any per worker(s) involved in the incident (e.g., no names, pho

14)* What was the employee doing just before the i tools, equipment, or material the employee was using carrying roofing materials"; "spraying chlorine from

15)* What Happened? Tell us how the injury occurred. 20 feet"; "Worker was sprayed with chlorine when g soreness in wrist over time."

16)* What was the injury or illness? Tell us the part o *Examples:* "strained back"; "chemical burn, hand";

17)* What object or substance directly harmed the "radial arm saw." *If this question does not apply to th*

18) If the employee died, when did death occur?

Public reporting burden for this collection of information is estimated to average 22 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Persons are n current valid OMB control number. If you have any comments about this estimate or any other aspects of this data collection, including suggestions for reducing this burden, contact: US Department of Labor, OSHA Office of Statistical Analysis, Room N-3644, 200 Constitution Avenue, NW, Was

Figure 2. Online incident report form required by OSHA for some incidents (2004)

Finalizing Internal Incident Reports

Organizing your effort, taking stock of your progress through the reporting process and reorganizing your information is a constant in incident reporting. At this point, you should be able to check off the following steps:

- Ensure you have collected all relevant answers to the reporters' questions from both your own point of view and that of others involved in or witnessing the incident.
- Confirm you have taken photos and created or obtained drawings as needed to fully and clearly explain the sequence of events and extent of damage.
- Obtain copies of any other documentation (police reports, for example) or artefacts from the scene of the incident that will accompany your internal report.

Draft your report using the format prescribed by your employer or, if no specifics are given, use a standard business memorandum format. Keep in mind both the intended audience and the potential readers as you write; and remember that your purpose is to objectively report the facts and details of the incident in a clear, concise, complete, correct, and usable document.

Chapter Conclusion

Incident reports are a workplace-specific genre of writing that generally appear in report memo format. Like all forms of technical writing, incident reports succeed when they are clear, complete, concise, and correct. This genre is frequently written for one audience who then may disseminate it to a much broader audience. The challenges of incident reporting include careful organizing, integrating graphics, and especially reporting facts and observations objectively and completely without addressing the author's opinions or judgments. Just (all) the facts, please.

Activity: A Case Study

Read and discuss the following scenario with your classmates as directed by your instructor.

Safety First

Carolyn has 3 semesters left to complete her bachelor's degree in environmental engineering. Last summer, she was hired as a field sampling technician for a growing environmental engineering firm. Her employer specializes in groundwater remediation. Carolyn's training in the first week of her internship included the following topics:

- Safe operation of company and worksite vehicles, both at the office and in the field
- Use and care of personal protective equipment
- Handling, marking, and disposal of samples, equipment, and supplies
- Completing daily work logs and weekly progress reports
- Protocols for reporting accidents and near misses

Continued…

Safety First Continued…
Carolyn also learned from the junior-level project engineers who trained her that interns and new hires typically are expected to do most of the paperwork.

On Wednesday of the second week of her internship, Carolyn had an opportunity to test her skills at collecting and reporting information about an accident involving damage to company property. Joey, a project engineer who oversaw Carolyn's training on the sampling process, was driving a company pickup from the office to the field worksite.

- The truck assigned that day to Joey and Carolyn had been parked front-end first in the fleet yard, which violated the safe operation and parking rules of the company.
- Joey noticed there were no chocks at the wheels of the truck. Since he didn't need to remove any chocks, he did not complete a walk-around of the vehicle.
- Carolyn climbed into the passenger side of the truck and fastened her seatbelt.
- Since the parking spot was positioned against the building, preventing him from pulling through, Joey backed out.

Joey backed the truck out of the parking spot and collided with a cement barrier. The collision broke the taillight cover on the truck's passenger side and dented the bumper. There was also damage to the paint on the truck's tailgate.

Answer the questions and be prepared to discuss your answers in class.

1. Consider the audience, which may include safety officers; business owners; direct supervisors; medical personnel; and insurance and legal agents. What needs do all members of this audience have in common?

2. Carolyn is an intern and is just starting her work at the company. She doesn't want to become known as "a troublemaker" among her peers. What should she *include* in her witness account of the incident report? What should she *avoid* in the report? Why?

3. Would you advise Carolyn to include any photographs in her incident report? If so, what should she photograph? If not, why not?

Homework

Refer to Figure 3 below as you complete the homework.

Instructions for Employees: **<u>Making an Initial Property Damage Incident Report</u>**

Report as soon as possible within 4 hours of the incident via email addressed to <u>Safety@Company.com.</u>

1. Subject line of email: "MM/DD/YYYY Property Damage Notification."
2. Include the following information in the body of the email:
    - Names of employees present, whether involved or possible witnesses
    - Organization unit, office phone and cell phone numbers of employee making report
    - Time, weather, and site address and description of incident location
    - Describe the work being performed and the equipment and/or other property damage
3. Attach pictures of the location and damaged area(s) of equipment.
4. CC the unit supervisor and all other employees present at the time of the incident.

Figure 3. Example of an employer's instructions

Work together with a partner to agree on the details of the incident to be reported. You will need to make decisions about any details not provided in the scenario but required by the reporting instructions: for example, you will need to decide on a date and time of day for the incident. What other assumptions do you make?

Why do you think the instructions require a report *within 4 hours* and submitted *via email*?

Write and submit the employer-required incident report email for the accident identified in the **Activity** section above.

References

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Writing Progress Reports

Stacey Corbitt

Chapter Overview

It may seem like technical writing – indeed, many kinds of professional business writing – must be huge undertakings involving much effort and endless detail. With all the emphasis on being complete, accurate, and collaborative, do you wonder whether you can develop enough skill during college to compete as a writer in a technical or other business position? You may be hoping there's an engineering or other professional position out there where you can stay under the radar and do your job without having to write anything important.

There is good news on this matter, and then there is *great* news.

First, the good news: virtually all entry-level professional positions present opportunities to practice writing in a variety of situations and for multiple types of readers. Writing in technical fields, as you may now realize, can require significant time commitment and collaboration, as well as various other "soft skills." As a result, employees working to gain experience in the field may be tapped frequently to complete writing tasks.

Do you wonder exactly how the preceding paragraph is *good* news? Consider the *great* news: the day-to-day business of technical writing is largely short, direct reporting for specific purposes and audiences. While short reports aren't necessarily easy to write, they do offer opportunities to practice crafting clear and concise documents. The *progress report* is one of several standard forms of short reports. This chapter aims to help students understand how to plan and write progress reports that meet the needs of their assignments as well as the standards of professionalism required by their fields of study and work.

What is the audience and purpose of a progress report?

Progress reports are typically requested and reviewed by one or more stakeholders in a project. *Stakeholders* is a general term for people who have a business interest in the subject project and may need progress reports because of fiscal, legal, financial, or other responsibility for the work in question. While progress reports may be required by the person or group at the next level of responsibility above your own, the readership and reach of your periodic progress reports can be greater than you know, sometimes applying to the top tier of an organization.

Put simply, stakeholders use progress reports to communicate about work on projects, including levels of completion and delays alike. These reports provide a number of opportunities for communication, including but not limited to:

- reporting early research findings
- notifying stakeholders about problems
- discussing potential changes in planned work, schedule, and other project factors
- evaluating work completed

As with all technical writing opportunities, careful characterization of the audience and the context in which the report will be used is crucial to successfully achieving the purpose of a progress report. In addition to these standard considerations, other specific questions a writer should ask in preparation for writing a progress report include the following:

- Has the requestor specified a form you must use? If so, do you have the most up-to-date form and specifications to follow?
- What is the date of expected delivery for this report? What is the expected frequency of reporting? For example, do you need to report once weekly, or more or less frequently?
- Is supporting documentation necessary? If so, how should you include it?
- Is there an oral presentation component required with this report?
- Have you set aside enough time to complete this report and obtain a peer review?

In a word, the key to writing efficient, clear progress reports is *preparation*. Always take the time needed to ask these practical questions about the rhetorical situation in which you will be writing a progress report for any project.

What is the necessary *content* for a progress report?

Depending upon the information you collect through the questioning activity outlined in the previous section, the specific content your project progress report will need can vary. In general, though, you might think about the content required in a progress report in a specific way: that is, part of the content comes from the past; part of it discusses the work you are doing today; and the third part of the content represents the project's future.

Activity: Begin Drafting a Progress Report

Begin with an individual or group project in which you are currently involved, whether for your writing course or another class. Proceed by making notes in response to the following directions.

1. On the day and at the moment you are preparing a progress report, review all the project-related events since the beginning of the project <u>or</u> since the last progress report. Write a quick description of what took place during that time, using the *past tense* to describe what you and your team completed, discovered, and so on.

2. Next, a brief discussion of the work you are doing today or this week will address the *present tense* portion of your discussion.

3. Third, from the same point of view in the present moment, look ahead of you at all the project-related work you want to address between now and the next reporting milestone. Write a quick description of what plans you have for the project's future, using the *future tense* to describe what you and your team will begin, what you will complete, and so on.

4. Finally, build a draft timeline that displays the entire list of tasks for your project, whether completed, ongoing, or to begin at a point in the future. You may consider developing a *Gantt chart*, like the one presented in Figure 11.7, shown below and adapted from [*Exploring Business*, published by University of Minnesota (2016)].

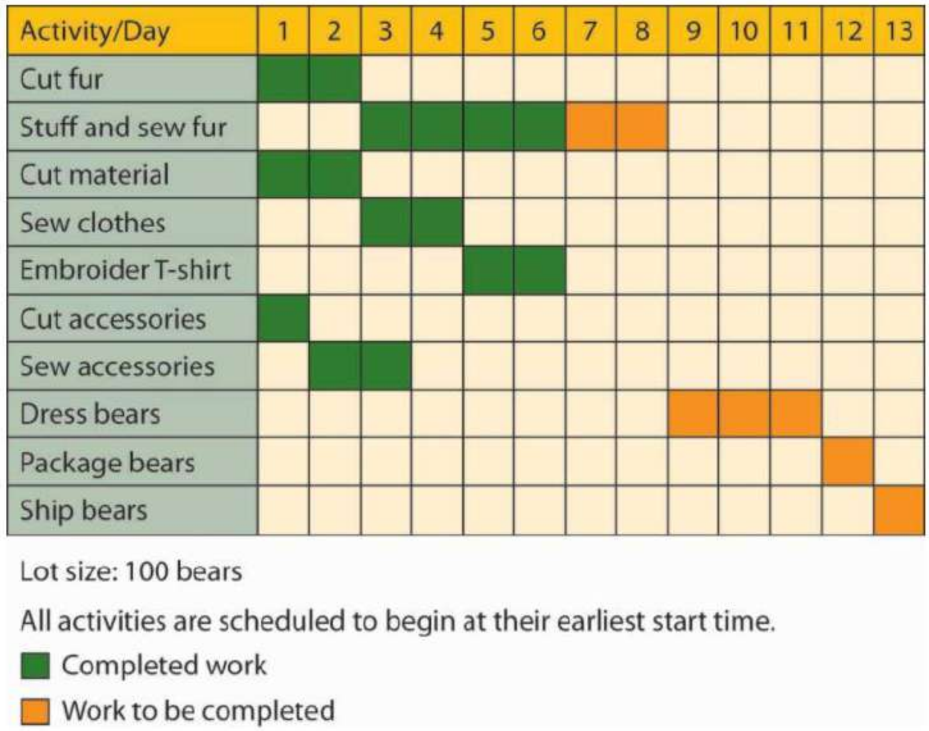

Figure 11.7 Gantt Chart for Vermont Teddy Bear

Use the notes you have prepared in this activity to complete the Homework at the end of this chapter.

What are the important stylistic considerations for a progress report?

If you put yourself in the position of the typical audience for a progress report, you can identify the characteristics that are most important for that reader's use of the document. As you know, writing that is clear, concise, complete, and correct is vital to the success of any technical document in reaching its audience and accomplishing its purpose. With regard to progress reports, particularly those written in business, one additional quality critical to success is *brevity*. The progress report is an ideal demonstration of writing that should include only significant details and nothing extraneous. To the extent a progress report for your work can be accomplished in one single-spaced page, do not make it longer.

Use active construction

Because they constitute a direct communication from the writer to one or more identified readers, progress reports are frequently presented in one of the common business correspondence formats: namely, an email, memo, or letter report. Correspondence is a genre of writing that lends itself to the use of personal pronouns like *I*, *we*, and *you* in particular. Being able to use a first-person voice with personal pronouns gives writers an advantage toward writing progress reports: personal pronouns make it easier to use active constructions.

Using the active voice, or *active construction*, essentially means that you construct sentences and passages in which the following characteristics are evident:

- The subject performs the action of the verb rather than receiving the action of the verb.
- The use of forms of "to be," also known as *state of being* verbs, is minimized.
- The emphasis of an active sentence is on the subject and verb, rather than on an object.

Consider the following examples:

Passive construction	My sister was bitten by the neighbor's dog. (8) The carpool is being organized by my office mate. (9) My missing glasses have not been seen by anyone all week. (11)

Notice that the *nouns* first written in each sentence – *my sister, the carpool,* and *my glasses* – are all receiving the action of the *verbs* in the sentences.

Notice also that each of those verb phrases includes a form of *to be*: *was bitten, is being organized,* and *have…been seen*.

Finally, notice that the same word follows the verb phrase in each sentence – *by* – creating a prepositional phrase that indicates the noun or pronoun performing the action in each sentence.

Now examine the same three statements below, written in the active voice:

Active construction	The neighbor's dog bit my sister. (6) My office mate is organizing the carpool. (7) Nobody has seen my missing glasses all week. (8)

Notice the change in arrangement of words in each statement. You can identify the *subject* that appears at the beginning of each sentence; followed by the *verb* or verb phrase that indicates the *action being performed by* the subject; and finally the *direct object* of the sentence that *receives the action* of the verb. The numbers in parentheses in both sets of examples indicate the total number of words in each sentence.

What are your thoughts about converting sentence construction from passive to active for purposes of being clear in a progress report? Discuss the question with a partner in class and make some notes about your observations. Do you think the active construction has advantages over passive construction? Does active construction have disadvantages?

Near the beginning of this section, you read "… personal pronouns make it easier to use active constructions." Do you think that statement is true? Discuss why or why not.

Stick to the facts

Your goal is to write an excellent progress report by making your work clear and complete while keeping the document brief. In the previous section, you practiced revising sentences from passive to active construction, a tactic that increases clarity while usually decreasing overall sentence length. Another useful practice in writing short reports – particularly those for the workplace – is to resist sharing your opinions, suggestions, and other unrequested content. Concentrate on reporting the facts and responding to exactly what the reader has requested.

What organizational structure should be used for a progress report?

Recall that one of your earliest tasks in preparing to write a progress report is to discover what information you must report and whether a specific form is required. In the event these details are not part of the assignment you receive, you may need to determine the clearest and most efficient way to organize the body of your report. Consider the following possibilities.

Chronological order	*Initial* report is focused according to dates of milestones, beginning with earliest tasks undertaken/complete and ending with future tasks/milestones and their levels of completion. *Subsequent* reports do not repeat status of tasks previously completed: instead, begin with updates on tasks identified as *ongoing* in the previous report.

Priority order	*Initial* report begins with most critical task and its information, followed by discussion of tasks in order of importance to the overall project. *Subsequent* reports continue in the same fashion.
Topic order	*Initial* report includes discussion of separate tasks, phases, or the like that may have been predetermined for reporting purposes. *Subsequent* reports continue in the same fashion.

As is the case with structural considerations for any technical report, the most important point in choosing an organizational pattern is to make that pattern clear to the reader. Keep in mind that the structures delineated in the previous table are intended to guide the development of the *body* of your report in the event you do not receive specific guidance from the project manager or your instructor. Similarly, you may have to decide whether the report should be submitted as a letter, a memo, an email, a presentation, or another format that may be preferred by your reader.

In her 2019 book *Technical Writing Essentials: Introduction to Professional Communications in the Technical Fields*, author Suzan Last provides the following suggested outline of elements to include in a progress report generally (pp. 178-179):

Progress Reports – Structural Overview

1. Introduction

Review the details of your project's purpose, scope, and activities. The introduction may also contain the following:

- date the project began; date the project is scheduled to be completed
- people or organization working on the project
- people or organization for whom the project is being done

- overview of the contents of the progress report.

2. Project status

This section (which could have sub-sections) should give the reader a clear idea of the current status of your project. It should review the work completed, work in progress, and work remaining to be done on the project, organized into sub-sections by time, task, or topic. These sections might include

- Direct reference established milestones or deliverables
- Timeline for when remaining work will be completed
- Any problems encountered or issues that have arisen that might affect completion, direction, requirements, or scope.

3. Conclusion

The final section provides an overall assessment of the current state of the project and its expected completion, usually reassuring the reader that all is going well and on schedule. It can also alert recipients to unexpected changes in direction or scope, or problems in the project that may require intervention.

4. References section if required.

Chapter Conclusion

Progress reports are an ideal example of workplace technical writing for science and engineering students to study. Progress reports represent short, clear documents with a specific purpose. These reports use typical business correspondence formats to communicate detailed technical information to a known audience. A successful progress report's other characteristics include

- brevity
- sentences constructed in the active voice
- factual information without opinions, speculation, or extraneous content
- an appropriate pattern of organization

Homework

Use the notes and project schedule you prepared in the Activity earlier in this chapter to write a progress report for your current research project. Address all of the following considerations, but <u>do not</u> use this list to organize your report:

- Confirm with your instructor the required report *format* – email, letter, memorandum, or presentation
- Determine the appropriate *organizational pattern* – chronological, priority, or topic – for the body of the report
- Include an Introduction, body, conclusion, and references (if appropriate). In the *body* section, address the following items:
  1. summarize and evaluate research findings to date
  2. present the project schedule
  3. problems, changes, delays, and questions

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Delivering Presentations

Stacey Corbitt

Chapter Overview

Understanding the anxiety that accompanies public speaking is an effort you might make in an introductory psychology class, but the subject is beyond the scope of this textbook. The good news is that, contrary to how you might feel as a college student, delivering a presentation is not likely to be an activity that will lead to your demise. In fact, you probably engage in behaviors nearly every day that are much more risky than speaking in front of an audience.

Nevertheless, this chapter aims to help you select information to address; develop visual media; prepare and practice remarks; and deliver a successful presentation, all while practicing calm composure. Because writing and delivering presentations are not discrete steps but are, like most other technical communications, interconnected activities, you will not find separate processes discussed in this chapter. Instead, think of the whole experience as a singular activity: that is, perhaps, *doing* presentations as a means of offering technical information for use by a broad audience.

A number of accessible resources exist to help people of varying skill and experience levels overcome the nervousness surrounding all aspects of presentations. This chapter, however, focuses specifically on the unique challenges scientists and engineers – both students and professionals – encounter when writing about and presenting technical information. The following discussion is adapted from a blog post by TED Writer Kate Togorvnick May (2012), in which the author highlights "six specific strategies that scientists and engineers can use while preparing to share their work outside their field" as presented by Penn State University instructor Melissa Marshall in Marshall's 2012 TED Talk exploring the subject of developing and delivering technical presentations to a non-specialized audience.

Strategy 1: Analyze the Audience

Marshall advises writers to begin by assuming the audience for a presentation is interested in learning about the research, even if they do not have the same scientific or technical background. In other words, your audience cares about the information you are presenting. Starting from that point, she says this about the idea that scientific information should be "dumbed down":

I think this is a flawed perspective that doesn't place enough emphasis on the responsibility of the speaker to communicate clearly. As speakers, we have to respect our audience — we need them on our side! You can clearly communicate your science without compromising the ideas (as cited in May, 2012).

Understanding the background and interests of the audience allows you to adapt your material and your delivery to meet their needs.

Think about a time when you were an audience member for a presentation of new or unfamiliar material. The situation may have been a recent experience during a class or seminar. How did the speaker demonstrate his or her responsibility for ensuring their communication was clear? How did the speaker express respect for his or her audience? Could you identify instances in which the speaker "dumbed down" the science in their presentation? If so, what was the effect of that approach on your experience?

In the space provided below, respond to these prompts and be prepared to discuss your responses in class.

Strategy 2: Acknowledge the Audience

As a student, you are certainly aware of the difficulty audience members face when the material being presented is not clearly relevant to the audience's needs or interests. As a speaker, you are responsible for making the information you present understandable and engaging for the audience. When you take Marshall's advice (as cited in May, 2012) and make an early effort to explain why your presentation should matter to them, that action "creates an instant connection between you and the audience because the audience perceives you as being invested in their understanding of the talk."

Think about a time when you were tasked with teaching someone information he/she did not want to learn, or at least something in which the audience had little or no interest. Some teachers have such experiences often, but what about you? Discuss your experience with a partner in class using the following questions to guide your discussion:

- What was your purpose in presenting the information?
- Who was your audience?
- How did you know the audience was not engaged with you or your presentation?
- What (if anything) could you have done to improve the situation?

As you discuss your experiences with a disinterested audience, keep in mind that the last question, *What (if anything) could you have done…?* is intended to encourage you to think about the problem in a new way. Again, recognize that you are responsible for making the information you present understandable and engaging for the audience, so blaming the audience for their lack of attention doesn't work. Instead, think of ways you can acknowledge the audience in terms of what benefits they can derive from engaging with your talk and your message. The unspoken question from every audience is "What's in it for me?"

Activity: Practice Scenario

Consider the scenario below, respond to the prompts, and be prepared to discuss your notes.

You are a safety professional charged with delivering a presentation at the beginning of a community clean-up project. Your *audience* is a group of teens ranging in age from 14 to 18 years old who are required to volunteer by a court order to provide community service. Your *purpose* is ensuring the teens understand and adhere to the job's safety requirements.

Following the advice described above, *analyze* your expected audience. How will you take responsibility for ensuring your message is clear? How will you show respect to the needs of your audience? In the space provided below, respond to these prompts and be prepared to discuss your responses in class.

Next, *acknowledge* that your audience may not clearly understand how your presentation relates to them. How might you address the unspoken question from your audience: *What's in it for me?*

Strategy 3: Relate the Information to the Audience

Kate May's summary of this point indicates that you must explain how your presentation is relevant to the audience, perhaps by using examples or telling a story that interests and resonates with them. She offered the following suggestion:

> [A]nalogies are one of the most powerful speech strategies available to a presenter of science as they anchor a complex technical idea to a concept that the audience already understands. When you use an analogy, you are using the audience's prior knowledge to explain your concept (May, 2012).

Consider the Facebook post about climate change penned by former California Governor Arnold Schwarzenegger. First, determine as a group who you think was the intended audience for the post. Next, what was Schwarzenegger's purpose in posting the writing? Make notes below for use in your discussion.

Note in particular his *analogy* that compares two doors to the choice between fossil fuels and renewable sources of energy. Discuss the author's use of analogy, considering Kate May's direction that analogies should "anchor a complex technical idea to a concept that the audience already understands." Do you think this example accomplishes what May suggested? Be prepared to discuss your answer.

In class, discuss the idea of using analogies to help an unfamiliar party understand information that makes sense to you and others learning or working in your field. Working with a partner or as directed by your instructor, describe a specific concept or significant point relevant to your field and/or your research for this class. Use the space provided on this page and be prepared to discuss your response in class.

Your example provided in response to this prompt might lend itself to the use of an *analogy* that could help unfamiliar audience members understand the basic concepts you want them to grasp. Can you think of a possible analogy you might use when presenting the concept to an unfamiliar audience?

Strategy 4: Do the Math for the Audience

As a presenter, you must know the level of understanding your audience has about your topic in order to set a *context* that will help them use the material you are presenting. In some cases, setting an appropriate context means you must "do the math" for the audience in ways such as

- presenting material like experimental results on slides using a series of steps and explaining each part before progressing to the next step/slide
- using *illustrations*, rather than text, as the main content for slides
- simplifying charts and graphs to highlight specific points
- doing the actual math by presenting calculations step-by-step using slides that mirror your discussion

However you opt to help your audience access your presentation by doing the math for them, remember that *less* is *more* with slides or other visual aids. As Aaron Weyenberg, TED's "master of slide decks" explains:

> The presentation needs to stand on its own; the slides are just something you layer over it to enhance the listener experience. Too often, I see slide decks that feel more like presenter notes, but I think it's far more effective when the slides are for the audience to give them a visual experience that adds to the words (TED, 2014).

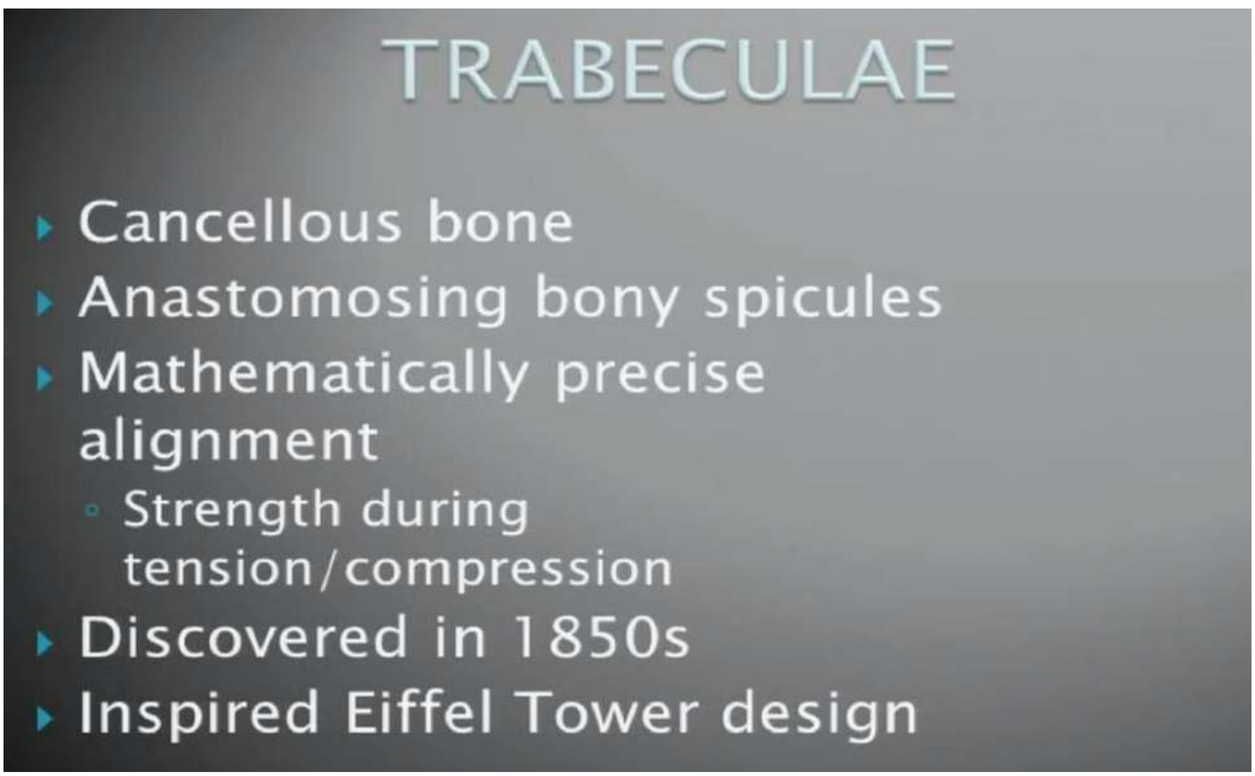
Activity: Analyze a Bad Example

Work with a partner in class (or as otherwise directed by your instructor) to search for an example of what you consider to be a poorly-constructed or otherwise ineffective slide. Alternatively, use Microsoft PowerPoint or another approved software application and create your own terrible slide. Prepare remarks to present during class to demonstrate the errors you identified in your example.

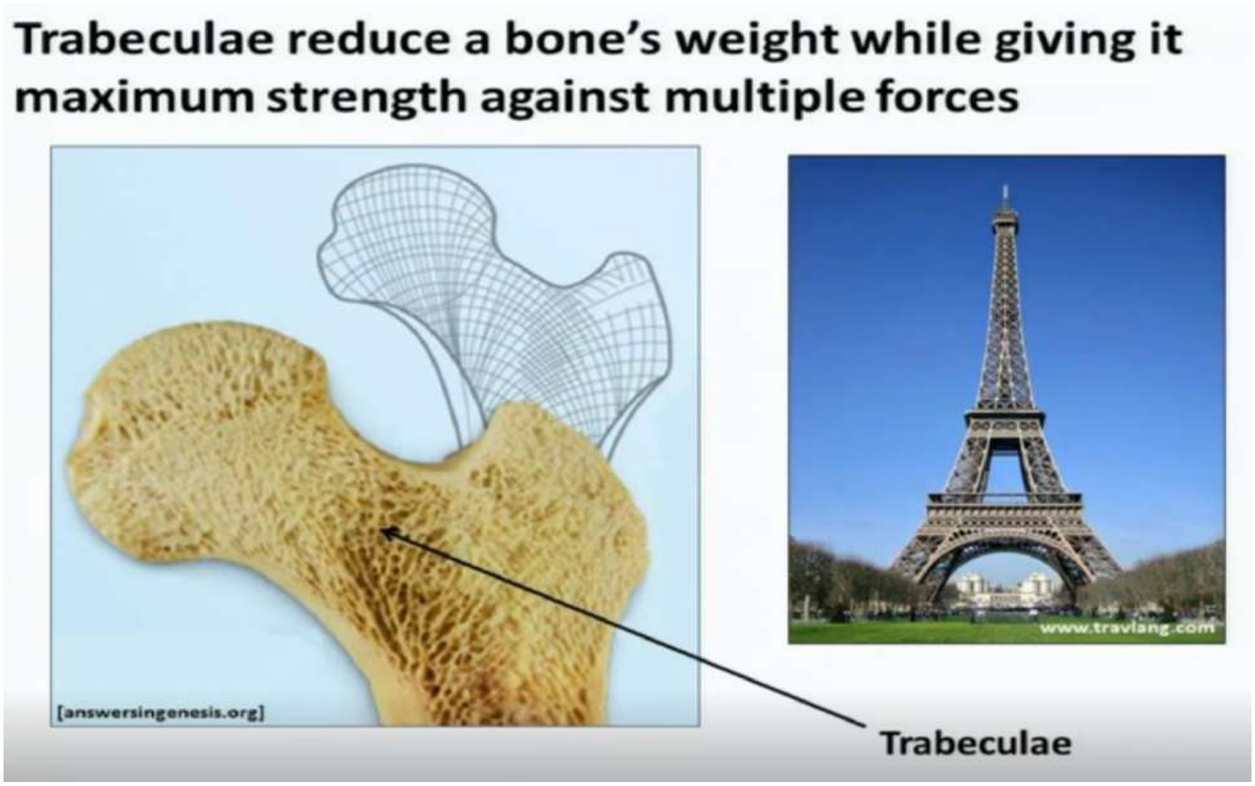
Strategy 5: Don't Shoot the Audience

Technical writers have a variety of tools and techniques available to aid in making documents effective. Among those tools are elements like illustrations, section headings, numbered lists, outlines, and bullet points. In her TED Talk linked earlier in this chapter, Melissa Marshall (2012) focused particular attention on one of the technical writer's popular tools: "[When] presenting your work, drop the bullet points. Have you ever wondered why they're called bullet points? What do bullets do? Bullets kill, and they will kill your presentation" (Marshall, 2012).

Marshall continued by offering two example slides, saying "A slide like this is not only boring, but it relies too much on the language area of our brain, and causes us to become overwhelmed." Below is an image of the slide she was talking about.



Marshall then demonstrated a better alternative slide design: "Instead, this example slide by Genevieve Brown is much more effective. It's showing that the special structure of trabeculae are so strong that they actually inspired the unique design of the Eiffel Tower."



Strategy 6: Engage with the Audience

Think about the best, most engaging presentation you have seen in recent years. As an audience member, what did you find engaging or exciting about that presentation? In other words, what made the presentation – and the presenter – the best?

It is possible your response to the prompt above indicates that you admired or enjoyed some characteristics of the *presenter*, and the *information* you received was less notable. It may be that the best presenters appear trustworthy, and genuine, and reliable in part because they display confidence in themselves as well as in the information they present.

Where do great presenters get their confidence?

As a student of technical writing, you know the single most important element of study to your success is *practice* developing documents that are clear, concise, complete, and correct. A presentation is a form of technical communication much like a document: and the only path to mastery of writing and delivering presentations is *practice*.

Think about the presence of practice in your own life, and discuss your ideas in class. What have you learned personally about practice? How did you learn the lesson(s) you've learned about practice? When practice leads to mastery of a skill, what additional benefits do you receive?

Chapter Conclusion

Presenting technical information is probably the topic of a full-term length course in your science or engineering curriculum. Nevertheless, you should expect to be called upon to write and deliver presentations in classes or on the job before you have completed that course. This chapter provides an introduction to presentations, focusing specifically on the unique challenges scientists and engineers – both students and professionals – encounter when writing about and presenting technical information. Your review, discussion, and reflection throughout your study of this chapter should help you select information to address; develop visual media; prepare and practice remarks; and deliver a successful presentation. Refer to all of the six strategies that work together to help you practice and develop confidence as a presenter.

Homework

Write a memo to your instructor that outlines your proposed plan for a safety orientation presentation.

1. Your audience and purpose for the presentation are identified in the first Activity in this chapter (teens participating in a community cleanup).
2. Address the memo to your instructor and identify yourself as the safety professional in charge of orientation.
3. Using your notes from the Activity as a starting point, explain how you will employ the six strategies discussed in this chapter to ensure a successful presentation.

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Unit IX: Producing Academic Writing

Responding to Reading

Dawn Atkinson

Chapter Overview

This chapter discusses reading approaches—survey reading, close reading, and critical reading—and how these support the reading comprehension, retention, and application that are so critical to university-level study. Furthermore, the chapter encourages you to employ these approaches when reading a text about writing in order to craft a response to the text.

Effective Reading is Crucial to University-Level Study

Most college courses require students to complete a considerable amount of reading: texts of various lengths and levels of complexity that are composed for different audiences and purposes. Although this reality of college life surprises some students, various reading approaches exist that can help you manage the reading load. In particular, survey, close, and critical reading techniques can help you understand texts and retain their information.

As textbook writer Horkoff (2015, p. 8) notes, college-level reading tasks also require students to develop an understanding of viewpoints and evidence presented in texts, as well as biases, assumptions, and perspectives underlying discussion. The aim is to analyze, interpret, and evaluate texts, and then draw logical inferences and conclusions. This process oftentimes asks a reader to think about how ideas in texts are related and how they are relevant. Survey, close, and critical reading techniques consequently stress reading as a thinking process. The following subsections, which are adapted from Horkoff (pp. 8-14), explore these reading techniques in further detail.

Survey Reading

Survey a text to gain insight into its author's credentials, to determine its publication details, and to grasp its overall gist so you can make decisions about the credibility and pertinence of information presented. Look at the following elements when performing this initial review: author information (if provided), publication information, title, abstract (if provided), introduction, topic sentences, conclusion, headings, subheadings, and visuals. The following are benefits of survey reading.

- It can help you connect the author's qualifications with the text.
- It can help you identify the target audience(s) for the text.
- It can help you decide if the text is relevant for your purposes.
- It can give you a sense of the text's thesis or unifying focus and how this is developed.

- It can increase your concentration when reading because you have a mental road map of how the text is constructed.
- It can help you budget study time because you know the text's length and difficulty level.

Survey reading can be used with any document that allows for an overview: magazine articles, journal articles, and book chapters, for instance.

Close Reading

Read a text closely to concentrate on its specific content. To do so, examine the text's overall structure; read and annotate the text, noting its thesis/unifying focus, main points, and essential details; and summarize the text's important ideas and their development. Close reading is critical to academic work for the following reasons.

- You can clearly identify main concepts, key details, and their relationships with one another and are able to formulate a synopsis of what you read.
- You can identify a text's purpose as you read through it carefully.
- You can demonstrate active engagement with a text as you work to comprehend its meaning for yourself, as opposed to simply memorizing information from the reading.
- You can become more confident with academic reading assignments as your understanding of different types of texts grows.

Close reading can be used in any circumstance that requires comprehension of a text and retention of its main points and supporting details.

Critical Reading

Read a text critically to identify its key points; to discern how they relate to your own thoughts, class discussions, and other materials you have read; and to assess the soundness of perspectives communicated and the support for those ideas. Critical reading necessarily requires deep involvement with a text and calls for a careful eye and an open mind in order to identify viewpoints, reasons, and evidence expressed. Critical reading, in turn, offers these benefits.

- By working actively to interpret, analyze, and evaluate the soundness of arguments conveyed in a text, you can thoroughly understand the text's meaning.
- By examining a text carefully and thinking about its wider associations, you can pinpoint connections between it and your coursework, helping you to see how areas of study are related.
- By interacting with a text in a purposeful way, you can increase your attention level when reading.

- By developing a thorough understanding of a text and its construction, you will likely feel more confident when discussing it in class or in a writing assignment.
- By considering the soundness of the evidentiary support used in a text, you can become better able to assess the quality of source material.

Although critical reading can be useful in situations that specifically call for critique—analysis (close examination) and evaluation (reasoned judgement)—in reality, college-level reading, on the whole, calls for critical engagement with texts. Try out the following methods to encourage the development of critical reading skills.

- Connect what you read to what you already know. Look for ways the reading supports, extends, or challenges concepts you have learned elsewhere.
- Associate the reading with your own life. Determine how statements, characters, or situations connect to your personal experiences.
- Visualize what the text describes. This technique can help you understand how steps connect to a larger process, for instance.
- Pay attention to graphics as well as text. Photographs, drawings, diagrams, tables, charts, and infographics can help make abstract ideas more concrete, understandable, and relatable.
- Understand the text in context. Understanding context means thinking about who wrote the text, when and where it was written, the author's purpose for writing it, its target audience, and what assumptions or agendas influenced the author's ideas.
- Plan for opportunities to talk and write about what you read. Take notes on the reading and formulate questions to raise in class, bearing in mind that class discussions can stimulate and clarify ideas for assignments.

As this paragraph indicates, critical reading calls for a considerable level of involvement with a text, but it also brings valuable gains in academia and beyond.

Applying Reading to Writing

Although the techniques discussed thus far can contribute to reading comprehension and retention, they can also be useful in situations that call for the application of reading to written texts. A summary/response paper is one of these situations.

Engagement with a Text is Vital to Writing an Effective Summary/Response Paper

In a summary/response paper, a writer relays the key points of a text or multiple texts in summary form before responding to those points. A summary can actually help springboard a response since a writer needs to thoroughly understand and carefully consider the ideas of a text when summarizing it. A summary also establishes necessary context for a response and cites and references the original text(s). Bear in mind that as a writer, you cannot assume all readers will be familiar with the text(s) you respond to, so you must lay the groundwork for the response in the summary. List the full title of a text at or near the beginning of its summary, again to establish context for the reader. Notice how the following example summary, which is adapted from Babin et al. (2017, p. 122), supplies understandable context for the reader.

> In "Beyond the Five Senses," Matthew Hutson's July 2017 article published in *The Atlantic*, the author explores ways potential technologies might expand human sensory perception. Hutson notes that existing technologies, such as cochlear implants, are already assisting people who do not have full access to one of the five senses. In much of the article, though, the science writer focuses on how emerging technologies might heighten the ways people sense things. Some of these technologies are based on senses that can be found in nature, such as echolocation (locating objects through reflected sounds), while others seem more deeply rooted in science fiction, such as antennas attached to the skull that can turn colors to sound for individuals with color blindness. Throughout his discussion of examples, the author encourages readers to consider how adding new senses to the ones they already experience might change how they perceive the world.
>
> **Reference**
>
> Hutson, M. (2017). Beyond the five senses. *The Atlantic*. https://www.theatlantic.com/magazine/archive/2017/07/beyond-the-five-senses/528699/

This summary provides a succinct overview of the article's central message while establishing necessary context for the reader.

Composing the Summary

A *summary* is a recapitulation of a text's central ideas, expressed in a writer's own words and sentences. A summary should thus exclude details—meaning that it will be shorter than the original text—and avoid a running commentary of points covered in the text (*the author said this first and this second*) by concentrating only on main themes. In addition, a summary should exclude a writer's viewpoints. Save them for the response section of the paper. Lastly, if a summary includes word-for-word material from a source text, that material must be enclosed in quotation marks; nevertheless, reserve quotations for particularly expressive language since a summary restates main points in a writer's own words. Survey and close reading techniques can be particularly useful when crafting a summary since a writer must thoroughly understand a text in order to summarize it. The "Reading Actively" chapter of this textbook provides detailed steps for producing a summary.

Composing the Response

A response expresses a reaction to a text—generally to what it says, how it is written, or how it influences your own thinking—and demonstrates involvement with the text. In this situation, critical reading can be particularly useful since the technique calls for analysis and evaluation of a text using a careful and detailed approach. Hence, you will engage in analysis and evaluation when asked to do any of the following in a response: comment on the strengths and weaknesses of a text; the quality of evidence used to support ideas in a text; the link between ideas expressed in multiple texts; or the association between the text and your own experiences, practices, or thoughts. The following response paragraph, adapted from Crane (2019, pp. 3, 6), illustrates the latter focus.

> Professor Michael I. Jordan's 2019 *Harvard Data Science Review* article entitled "Artificial Intelligence—The Revolution Hasn't Happened Yet" encouraged me to consider how AI might be applied to humanities scholarship, particularly to the study of the past. Whenever—or even whether—the artificial intelligence revolution takes place, one topic that Jordan discusses will remain fundamental to humanities researchers: intelligent infrastructure (II). Jordan defines II as "a web of computation, data, and physical entities that makes human environments more supportive, interesting, and safe" (p. 5). Within this category, I would include the extensive digital libraries with which researchers can explore questions about human history and culture. In its ideal form, this type of library would incorporate the full record of humanity: not just traditional texts, but every video, song, podcast, film, advertisement, television program, oral history recording, mathematical calculation, musical composition, writing system, and linguistic expression. Such a resource would be invaluable to humanities researchers seeking to explore humankind's cumulative trace upon its own past and present.
>
> **Reference**
>
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Sometimes instructors supply prompts to guide summary/response papers, but other times the direction of the paper is left largely up to you. Regardless of what a summary/response paper calls upon you to do, it is a persuasive document, meaning that you must support your viewpoints (also called *claims*) about the text(s) by supplying convincing reasons for those views along with sound evidence, which you may present in the form of facts, quotations, summaries, paraphrases, or visuals. Be sure to distinguish your views from ideas presented in the text(s) so the reader is clear about the origination of information.

Acknowledging Source Information

To acknowledge the source of information in a summary/response paper, begin by citing and referencing a text when summarizing it and refer back to the author and text as necessary in the response to mark the boundaries between the text's words and ideas and your own. A *signal phrase*, which typically identifies an author's credentials and uses a reporting verb or phrase to communicate what a writer says or does, offers one way to work the citation information into your paper in a cohesive manner. Here are two examples of signal phrases, the first used with a quotation and the second with a paraphrase.

- "The best prescription is prevention," emphasized Bloom (2020), an infection prevention specialist at the Society for Better Health (p. 14).

  [quotation + reporting verb + author name + publication date + credentials + page]

- According to Bloom (2020, p. 14), an infection prevention specialist at the Society for Better Health, social distancing was essential to combatting the virus.

  [reporting phrase + author name + publication date & page + credentials + paraphrase]

Full signal phrases like these can be used when first mentioning authors and their texts; afterwards, you can use an abbreviated signal phrase, such as *Bloom also clarified*, when discussing the same text. Also keep in mind that you do not need to repeat a full in-text citation if readers understand the source of the information presented. When discussing information from another section of the same source, simply provide new page numbers in parentheses following a reference to the source author. For example,

> Jones (2020, p. 16) finds that enhanced metacognitive awareness is associated with writing expertise. Indeed, the researcher (p. 30) claims that such explicit metacognitive functioning characterizes expertise throughout many different domains of operation.

If you are summarizing the main idea of an entire text—in other words, an idea that does not come from any specific page of the text—you will not be able to provide a page number for the summary. These comments notwithstanding, you must re-supply an in-text citation whenever you move from discussing one source to another in a paper.

Various types of signal phrases can be used to embed source material within paragraphs, as textbook authors Lanning and Lloyd (2018, pp. 159-160) explain, and these can be distinguished by their attributive tags, which provide author credentials or other identifying information about source texts. The examples in Table 1, which are adapted from Lanning and Lloyd (pp. 160-161), provide further details about various types of signal phrases. The attributive tags are underlined in the examples.

Table 1. A variety of signal phrases

Type: Lists an author's credentials **Example:** Santos (2019), Curator of Human Health and Evolutionary Medicine at the Finest Natural History Museum, explained… **Purpose:** Presents an author's credentials to help build credibility for source material.
Type: Mentions an author's lack of credentials **Example:** Wang (2018), whose background is in marriage counseling, not foreign policy, claimed… **Purpose:** Points out an author's lack of credentials to communicate that he or she lacks authority on a topic and to dissuade readers from adopting the author's ideas. This type of signal phrase can be useful when discussing responses to counter-viewpoints.
Type: Identifies an author's social or political stance, if this is applicable **Example:** Employing nonviolent civil disobedience, Hayes (2019), a prominent civil rights activist, advised… **Example:** Spencer, who has ties to the White Nationalist movement, has denied… **Purpose:** Explains the author's social or political stance to help readers understand why he/she expresses a particular view. This understanding can positively or negatively influence readers, so sustain an objective tone in the signal phrase by avoiding emotive language.
Type: Mentions the publisher of a source text **Example:** According to a recent *National Public Radio* poll… **Purpose:** Identifies the publisher and capitalizes on its reputation/credibility to emphasize the trustworthiness of information presented.
Type: Lists the title of a source **Example:** In "Understanding Human Behavior," Bukhari (2020) argued… **Purpose:** Provides readers with source details to help contextualize discussion of the source.
Type: Explains the circumstances of a source **Example:** In a talk given during a free speech rally, Shulman (2018) encouraged… **Purpose:** Reveals details about source origination to give readers a sense of the source's aim.

While reading through the example signal phrases listed, you may have noticed that they employ a variety of reporting verbs. Table 2 lists additional reporting verbs along with their associative meanings.

Table 2. Various reporting verbs and their connotations

Neutral Reporting Verbs	Tentative Reporting Verbs	Strong Reporting Verbs
said	implied	warned
pointed out	speculated	denied
described	estimated	asserted
reported	proposed	argued
noted	suggested	contended
observed	intimated	maintained
mentioned	inferred	insisted
offered	presumed	refuted
added	hypothesized	denied
defined	guessed	confirmed
discussed	imagined	emphasized
wrote	posited	recommended

Integrate different reporting verbs into your writing to develop sentence variety and maintain reader interest, but select them carefully to convey intended meaning: when discussing viewpoints, choose a reporting verb that matches the strength of the claim made in the original source text or expresses how you feel about that claim.

Structuring the Paper

As with other formal documents, use an introduction, body, conclusion, and reference list construction when writing a summary/response paper. Depending on length restrictions, assignment specifications, or your own personal preference, you might decide to use one of the organizational structures in Table 3 for the paper.

Table 3. Ways to organize a summary/response paper

Introduction

1. Establish context for the reader by introducing and summarizing the text(s) you will respond to.
2. State your thesis by indicating the topic and position or intention of the paper.
3. Forecast the content of the paper and its organization.

Body: respond to the text(s) by focusing on one main idea per body paragraph

1. Start with a topic sentence that introduces readers to the main idea of the paragraph and controls the paragraph's development.
2. Follow with supporting sentences that develop the main idea of the paragraph by supplying information, examples, illustrations, and source details.

Conclusion

1. Unify the paper by summarizing your response.
2. Emphasize the paper's central message, but do not introduce new information into the conclusion.

References

1. Place the reference list at the end of the paper, on its own separate sheet.
2. List the full bibliographical details for sources cited in the paper.

Introduction

1. Establish context for the reader by introducing the text(s) you will respond to.
2. State your thesis by indicating the topic and position or intention of the paper.
3. Forecast the content of the paper and its organization.

Body: focus on one main point or section of a text per body paragraph

1. Summarize the point or section you intend to respond to.
2. Respond to the point or section by discussing your agreement or disagreement with it, by addressing how it is written, or by explaining how it influences your own thinking.

Conclusion

1. Unify the paper by summarizing your response.
2. Emphasize the paper's central message, but do not introduce new information into the conclusion.

References

1. Place the reference list at the end of the paper, on its own separate sheet.
2. List the full bibliographical details for sources cited in the paper.

Both of these organizational structures provide vital context for the reader in the form of a summary before transitioning into a response, as this chapter recommends.

Activity A: Read and Work with Texts about Punctuation

Read the following handouts.

- “Apostrophes” (Writing and Communication Centre, University of Waterloo, n.d.-a) at https://uwaterloo.ca/writing-and-communication-centre/sites/ca.writing-and-communication-centre/files/uploads/files/apostrophes_0.pdf
- “Commas” (The Writing Center, University of North Carolina at Chapel Hill, 2020a) at https://writingcenter.unc.edu/tips-and-tools/commas/
- “Quotations” (The Writing Center, University of North Carolina at Chapel Hill, 2020b) at https://writingcenter.unc.edu/tips-and-tools/quotations/
- “Semicolons, Colons, and Dashes” (The Writing Center, University of North Carolina at Chapel Hill, 2020c) at https://writingcenter.unc.edu/tips-and-tools/semi-colons-colons-and-dashes/

Now review the feedback on your previous writing assignments. Identify three punctuation issues that recur in your assignments and handout sections that will help you address these issues.

Issue one + handout section:

Issue two + handout section:

Issue three + handout section:

Activity B: Read and Engage with another Text about Punctuation

In "Punctuation's Rhetorical Effects" (https://writingspaces.org/sites/default/files/cassell-punctuation-rhetorical-effects_0.pdf), Cassell (2020) explores strategies for understanding the way punctuation functions in texts. To help you comprehend, retain, and apply the ideas discussed in the essay, practice survey, close, and critical reading techniques by following the steps provided. Actively engage with the text by making notes on the steps as you proceed.

1. Use these prompts to survey the text.
    a. Read the title of the essay.
        - What does the word *rhetorical* mean? If you are not sure, look up the answer by typing *rhetorical definition* into Google.
        - What do you think *rhetorical* means in terms of the essay?
    b. Read the "Overview" section of the essay.
    c. Read the first paragraph after the "Overview."
    d. Read the section headings.
    e. Read the "Final Words" paragraph.
        - Based on your reading, what are your initial thoughts about the essay's topic?
        - What do you know about the text's author? Google his name plus institutional affiliation (listed in the first paragraph after the essay "Overview") to learn about his qualifications.
        - How does your knowledge of the author's credentials affect your impression of the text?
    f. Read the publication information that precedes the essay.
        - What did you find out about the publication in which the essay appears?
        - Who is the text written for?

2. Use these prompts to perform a close reading of the text.

    a. Read the essay in its entirety. Annotate as you go by underlining or noting down unfamiliar terms, questions, and thoughts regarding the reading. For further advice on making annotations, see "Annotating Texts" (The Learning Center, University of North Carolina at Chapel Hill, 2020) at https://learningcenter.unc.edu/tips-and-tools/annotating-texts/.

        - After reading, try to define the unknown terms you identified.
        - After reading, try to answer your questions. You may need to review the essential details of the text again to do this.

    b. Determine the essay's purpose.

    c. Identify the essay's thesis or unifying focus.

        - To do so, think about how essays are constructed. Generally, a writer will articulate the thesis or unifying focus in the introduction (the essay section that follows the "Overview").
        - McCann at al. (2017, p. 73) also suggest searching for the most important thing said about the essay's topic, for a statement that all of the information in the essay supports, for an important lesson communicated in the essay, or for a sentence that reflects and unites the essay's central meaning.

    d. Identify the main idea of the essay section entitled "Strategy 1: Learning Explicitly." Again, think about how essays are constructed: a writer generally articulates the main idea of a paragraph in a topic sentence.

    e. Identify the main idea of the essay section entitled "Strategy 2: Visual Reading."

    f. Identify the main idea of the essay section entitled "Strategy 3. Aural Reading."

    g. Identify the main idea of the essay section entitled "Final Words."

    h. Summarize the text using your notes.

        - Concentrate on the essay's thesis/unifying focus and main ideas or themes when summarizing, and omit details.
        - Put the essay away when summarizing it to avoid copying its language and sentence structures.

3. Use these prompts to perform a critical reading of the text.

    a. Identify how the author contextualizes the essay for readers by looking for associations between the essay and other texts, learning/teaching strategies, authors, schools of thought, or historical figures or time periods.

b. Identify links between the essay and course concepts, priorities, outcomes, discussions, or lessons.

c. Identify links between the essay and world-of-work applications.

d. Identify connections between the essay, your assignment feedback, and the punctuation handouts you read previously.

e. Consider your own reactions to the reading.

   - Answer question one on essay page 13.
   - How do you feel about the strategies discussed in the essay?
   - Do you think that one particular strategy would work better for you? If so, why?
   - How did the essay affect your understanding of punctuation?
   - How did the essay change your perspective regarding punctuation?
   - Will you use any of the strategies discussed in the essay? Why or why not?

f. Identify the evidence used to support the essay's main ideas. Evidence may be presented in the form of facts, quotations, paraphrases, summaries, and visuals.

   - Is each of the author's viewpoints (claims) supported with evidence?
   - Does the evidence sufficiently support the claim?
   - Is the evidence relevant to the claim?
   - Is the evidence logically tied to the claim?
   - Is the evidence research-based (*empirical*), factual, or grounded in hearsay or casual observation (*anecdotal*), or does the author rely heavily on a reader's emotional reactions to communicate the force of his viewpoints?
   - Can you easily associate citations with their references and sources? Note that the essay uses MLA (Modern Language Association) referencing style.

g. Identify the connection of reasons to viewpoints. The essay author may state reasons outright—look for uses of *seeing as*, *because*, *since*, *given that*, and the like—or imply them.

h. Consider the design of the essay relative to its genre.

   - What impression does the design give you?
   - How does the design contribute (or not) to your understanding of the essay?

Homework: Compose a Summary/Response Essay

Draw upon the work you completed for Activity B to write an essay that summarizes and responds to “Punctuation’s Rhetorical Effects” (Cassell, 2020). Unless your instructor supplies a more specific prompt, respond to what the text says by expressing whether you agree with it, disagree with it, or both; by concentrating on how it is written; or by addressing how it influences your thinking. When composing your essay, you may discuss points from the reading and hands-on task you completed for Activity A, but remember to cite and reference all outside sources of information. Follow the guidelines presented in this chapter when writing your paper; in addition, consult the “Writing Essays” chapter of this textbook for essay formatting guidance.

Use the following multipage handout, produced by the Writing and Communication Centre, University of Waterloo (n.d.-b), when revising your essay to ensure it is clear, concise, cohesive, and correct.

REVISION

Revision is the process of **revisiting** your work to make sure it says what you want it to say. You need to be flexible and prepared to make major structural and organizational changes. It takes time and is a **circular process**, which means going back over your work several times throughout the writing process.

What is the difference between revision and proofreading?

Proofreading is the **final stage** in revising and editing your writing, whereas **revision** looks at more global aspects of your writing such as the **argument**, **flow**, **logic**, **evidence**, and **organization** of your work. Only when you are satisfied with these larger aspects of your writing is it time to proofread.

Note that the Writing Centre will not proofread your paper and make changes for you. We will help you determine your personal problem areas and teach you to proofread your own work.

General Strategies

Get Some Distance

Take a break. Go for a walk. Give yourself at least a few hours between finishing a draft and picking it back up again for revision.

Print Out a Hard Copy

Print out your work and revise from a hard copy.

Read Your Work Out Loud

Your ears are better at finding problems than your eyes are, especially when you have been working on a piece of writing for a while.

Revise and Proofread in Stages

Don't try to review all your work at once. If you do, you'll likely become frustrated and miss what you want to change.

Review Large Elements First

Pay attention to large, overall concerns like content and structure. Work on smaller items like grammar and punctuation last.

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Keep Re-reading

Keep re-reading your work to make sure your entire paper makes sense as you make changes.

Get Feedback

Give your work to others for feedback. Seeing how your work is understood by a reader can help you improve your writing in new ways.

Specific Strategies

Content

When reviewing your content, make sure your information is presented clearly, at the right time, with sufficient **depth**, **detail**, and **relevance** for the purpose of your work. Check that there is no extra and irrelevant information. It's hard to let go of ideas and thoughts, but if they don't fit, they must be cut.

Questions to ask:

1. Is my **purpose** clear?
2. Is my **main idea/thesis** stated early?
3. Do I have sufficient **evidence** or **data** to support my ideas?
4. Is all my material **relevant** to my purpose?
5. Have I addressed my readers' **potential questions**?

Structure

The shape and flow of your paper or assignment is very important. Your reader should be able to follow the **logic** and **path** of your argument, easily and without feeling surprised, confused, or lost.

Questions to ask:

1. Are my ideas presented **logically**?
2. Do I introduce **new information** by connecting it to what I've already said?
3. Do I connect back to my **thesis** or **purpose** to show how pieces fit into the overall paper?
4. Is my information **easy to follow**? Does the writing **flow**?
5. Have I **repeated** any ideas in more than one place?
6. Are any parts **too long** or **too short**?
7. Does my organization follow the **structure** required for the assignment?

To see whether your paper presents information in a logical order, make a reverse outline:

Summarize each paragraph in a single sentence.
Arrange these summaries according to the order of your paragraphs.
Evaluate the outline. Do you notice any gaps in information or places where the content should be rearranged?

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Paragraphs

Each paragraph or section should be a well-organized, self-contained unit that focuses on a **main idea** and/or serves **one purpose**. Check to see whether each paragraph is cohesive by ensuring that all of your information **flows** and is connected, like a chain, from beginning to end.

Questions to ask:

1. Does the paragraph focus on a **single idea**?
2. Does the idea clearly relate to my **thesis** or **purpose**?
3. Do I begin with a **topic sentence** to summarize the paragraph?
4. Do I provide **evidence** and other **details** to support any argument/claims I make?
5. Do I provide sufficient **explanation** and **analysis** to connect the paragraph's main idea, the evidence, and my thesis?
6. Do I finish the paragraph with a **summary**?

Clarity

Sentences can be different lengths, but each sentence should focus on **one point** or **idea** as clearly and concisely as possible.

Questions to ask:

1. Are any sentences **too long** with **too many ideas**?
2. Do any sentences have **more words than needed**?
3. Can I replace vague words with more **precise** language?
4. Do I use the **right word** (not the biggest word) for what I want to say?
5. Can I state an idea more **simply**?

Read your sentences out loud. If you find yourself losing interest, or having to reread to make sense, it's time to rewrite.

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Writing Topic Proposals

Dawn Atkinson

Chapter Overview

This chapter aims to help you understand what a topic proposal is and how to prepare one. At its heart, a topic proposal is a persuasive document: when constructing a *topic proposal*, a writer aims to convince the reader that he or she has a defined topic in mind for an associated project, as well as a practical approach for completing that project. You may be asked to prepare a topic proposal on the way to writing a researched argument essay, for example, to assure your instructor that you have a manageable plan in place. A topic proposal also helps a writer clarify the focus of the related project so that it can be finished in a realistic timeframe.

What, specifically, is a topic proposal?

Although the specifications for topic proposals vary depending on their associated projects, in general, a topic proposal

- Identifies the focus of a linked project.
- States the writer's working *thesis*, a sentence or two that introduces the writer's topic plus his or her position on it; *research questions*, questions that a study seeks to answer; or research objectives. These need to be specific to be actionable.
- Discusses the rationale for the project or its focus.
- Overviews the research strategy planned for the project.

When presented in a clear, coherent, concise, concrete, correct, complete, and courteous way, these items speak to the viability of the related project.

How does a writer prepare a topic proposal?

Unless your instructor tells you otherwise, address the bullet list items in paragraph format in your topic proposal using an introduction, body, conclusion, and reference list format. Keep in mind that an introduction announces a document's subject and helps steer readers through the document; a body supplies focused topic sentences and accompanying details that all pertain to the subject mentioned in the introduction; a conclusion emphasizes the document's main message and summarizes key takeaways; and a reference list identifies the full bibliographical details for outside sources mentioned in the document. This textbook's "Organizing Paragraphs" chapter provides detailed guidance about how to construct paragraphs, while the "Selecting a Style Guide" chapter discusses the specifics of referencing.

Because a topic proposal is affiliated with a more in-depth project, it offers an opportunity to conduct initial research for the project. The research will likely feed into the project—if it is sound—so aim to find quality sources that will contribute to the project's development, and cite and reference them in the proposal. Table 1, which is adapted from Reynolds Community College Libraries (2018b) and University of Washington Libraries (2020), lists a variety of information sources that you might possibly consult when preparing a topic proposal.

Table 1. Types of information sources that may feed into a topic proposal

Information Type	Characteristics	When to Use
Reference Books Include: • Dictionaries • Encyclopedias • Handbooks	General and subject-specific reference books provide brief overviews or summaries of topics, which might include background information, facts, key ideas, important dates, and concepts.	If you know little about your topic, reference sources are an excellent place to start research.
Circulating Books Include: • Fiction books • Nonfiction books	Books typically provide an in-depth examination of a topic. Research-oriented books are works of non-fiction, while fiction works include novels, short stories, and poetry.	If you need: • Historical and detailed information on a subject. • To put your topic in context with other important issues. • Several points of view in one book (e.g., in an edited book).
Journal Articles Also known as: • Peer-reviewed articles • Refereed articles • Scholarly articles	Journal articles are *peer-reviewed*, meaning they are evaluated by experts working in the same field as a means of quality control. A *refereed* journal contains peer-reviewed articles. Journals cover a variety of disciplines and feature articles that provide in-depth research on specific topics. Articles are written by *scholars* (researchers) in a field and use vocabulary from that particular field of study. Journal articles can sometimes be lengthy, contain references, and are typically published on a monthly or quarterly basis.	If you need: • Accounts of original research, to find out what has been studied on your topic. • References that point to other relevant research.
Magazine & Newspaper Articles Also known as: • Popular articles • Periodical articles	Magazine and newspaper articles provide up-to-date information on various issues and events. Articles may be written by staff or freelance writers or may be unsigned. The articles are typically written for a general audience and use everyday language. They also tend to be short and are published on a daily (newspapers), weekly, or monthly basis.	If you need: • Up-to-date information about current issues, popular culture, or international, national, regional, and local events. • Various points of view or popular opinions (e.g., editorials, commentaries).
Trade Articles Also known as: • Trade journal articles • Trade magazine articles	A trade article is written by and for individuals working in a certain field to address a topic pertinent to that field. These articles may use specialized vocabulary and are typically published on a weekly or monthly basis by professional associations or commercial entities. They may be peer reviewed or not and may use personal experience as evidence for points made.	If you need: • Timely coverage of industry trends. • Information about an industry-specific topic.

Government Sources Include: • Legislation • Reports • Statistics	Government sources (international, national, state, and local) provide both historical and current information—data and analysis—on various matters of interest.	If you need: • Legislation from a specific area or level of government. • Reports or studies conducted by a government agency. • Historical or current data collected by the government on a specific topic or demographic.
Internet Sources Include: • Webpages • Images • Videos • Audio • Blogs	One of the main features of the internet is the ability to quickly link to information. The internet also contains information beyond plain text, including images, sound, and video. Since anyone can publish on the internet, you need to carefully evaluate the information you find there. For instance, any individual, company, or organization can publish a *blog* (an ongoing record of thoughts, reflections, experiences, and information that is posted to the internet for others to read), meaning that you must carefully evaluate the trustworthiness of blog entries, just as you would any other source of information that you intend to use in a research project.	If you need: • Information on current news and events. • Expert and popular opinions on various issues. • Company information. • Information from all levels of government.
Primary Sources Include: • Interviews • Surveys • Observations • Diaries • Speeches • Personal communications • Original documents	This source category is comprised of information that a researcher collects or examines firsthand. In other words, the information in primary sources is gathered or presented in its original form: for example, in an email, memo, or letter; a set of interview notes; a work of literature or art; an account of an event or experience; or an original document, such as a building plan or birth certificate.	If you need: • Original research data or statistics. • A first-hand account of experiences or events.
Secondary Sources Include: • Reports • Essays • Journal articles • Magazine and newspaper articles	Secondary sources comment on, analyze, evaluate, or interpret primary sources or provide second-hand accounts of experiences or events. These sources draw upon content originally shared in primary sources.	If you need: • A second-hand account of experiences or events. • An interpretation of a primary source.

Ultimately, after reading a topic proposal, readers should get a sense of a project's direction and the sources that will be used when undertaking it and thus feel confident about its feasibility.

Activity A: Work with a Sample Topic Proposal

Read the sample topic proposal that follows, which is adapted from Lerner (n.d.) as cited in Schall (2014, "Sample Proposal"). Afterwards, identify its components using the bullet list items presented at the beginning of this chapter.

The Market for Local Favorites and the Profitability of Convenience Stores

Nearly every U.S. state has witnessed the proliferation of convenience stores. Researchers Volpe et al. (2017, p. 4) define these retail outlets as "stores [that] typically sell gasoline, …feature a limited selection of staple foods as well as ready-to-eat, prepared foods [and] sell general merchandise." To add to this definition, convenience store products are typically priced higher than equivalent products carried by larger supermarket competitors. As someone who shops at convenience stores while taking occasional road trips in the United States, I am intrigued by this retail model. I consequently plan to focus on these stores in my researched argument essay, taking the position that their profitability is tied with their capacity to capitalize on the sale of local products. My topic proposal explores this argument in brief and mentions sources that I will use to investigate the topic further.

My essay will argue that the convenience store's profit margin is tied with the retail model's ability to spotlight the sale of local favorites. Convenience stores offer customers a one-stop-shop experience by combining food and gasoline sales, and people who live in remote areas may depend on the stores to buy necessities, for which convenience stores typically stock national brands. However, convenience stores also seem to fill a need that other grocery store outlets do not always address: customers can find local products prominently displayed for consumption in convenience stores, whereas shoppers may need to search for such products in larger stores. Moreover, consumers seem willing to pay more for local products in convenience stores during impulse buys, whereas they may be hesitant to purchase the same products during shopping-list-guided supermarket runs. The income from these high-priced impulse buys likely helps to support the profitability of the convenience store chains that stock the products. Readers who frequent convenience stores but think little about their nature beyond their handy locations and long opening hours might be interested in what contributes to the success of the convenience store business model.

To explore the tie between the prosperity of convenience stores chains and their local product offerings, I plan to investigate how the stores' inventory and sales have been tracked. The success of convenience stores in the United States has been well documented in various publications, including Adams (2019), Denham (2019), Kelso (2019), and Meyersohn (2020). I will consider these articles as possible sources for my researched argument to evidence the lucrative nature of the convenience store model. In addition, I will use library databases to search for peer-reviewed journal articles written in the past four years that examine the connection between convenience store profits and local offerings.

In conclusion, my researched argument aims to explore the connection between convenience store products and profitability. My paper will make the claim that by stocking and promoting local products, convenience stores draw profitable trade, helping them to retain a competitive edge in the lucrative grocery market, all in the name of customer convenience.

[Word count: 501]

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Having read and diagrammed the parts of this topic proposal, identify what makes it effective. Be specific in your response so you can discuss your ideas in class.

Activity B: Consider the Quality of Sources

As this chapter indicates, a topic proposal offers an opportunity to conduct initial research for an associated project in order to locate sources that can be used when developing the project. When identifying sources, you must think carefully about their quality and how that characteristic is linked to source effectiveness.

Table 2, which is adapted from Reynolds Community College Libraries (2018a; 2020a; 2020b), lists points to consider when evaluating the quality of sources for use in a topic proposal or other document. Study the table.

Table 2. Points to take into account when evaluating sources

Criteria	Questions to Ask	What to Look For
Author/ Authority/ Accuracy	☐ Who is the author? ☐ Is the author well known? ☐ Does the publication list the author's credentials (education or work experience)? ☐ Has the author published other works? ☐ Is the author affiliated with a company, institution, or organization? ☐ What sources did the author use? ☐ How many sources did the author use? ☐ In the case of an article, is it peer-reviewed? ☐ Does the work contain spelling, grammar, punctuation, or capitalization errors? ☐ Can you verify the accuracy of points made in the work across multiple sources written by different authors?	☐ Google the author's name. ☐ Search the library catalog, library databases, Google Scholar, and WorldCat.org (an online library catalog) to see if the author has written other works. ☐ Check for references. The number and type of references can help you determine the work's value and verify its conclusions. ☐ Google a journal and read its *About* section to find out if it is peer reviewed. ☐ Search the library catalog, library databases, Google Scholar, and WorldCat.org for other sources that address the same points. ☐ **Book:** Read the book jacket, preface, and introduction. ☐ **Article:** Look for information about the author at the beginning or end of the piece. ☐ Read the abstract and/or introduction and conclusion.

Publisher	☐ Who is the publisher?
	☐ Is it a commercial publisher, university publisher, professional association, research center, or government agency?
		☐ **Book:** Review the publisher information, which is usually listed on the first few pages.
		    ☐ Google the publisher's website and review the *About* section.
		☐ **Article:** Google the journal, magazine, or newspaper the article appears in.
		    ☐ Review the *About* section.

Purpose/ Objectivity	☐ Is the work intended to inform, sell/promote, entertain, persuade, or do a combination?
	☐ Does the author use sources to support his or her viewpoint(s)?
	☐ Does the author provide source details on a reference list, in footnotes, or in links?
	☐ Are opposing points of view represented?
	Note: You may not be able to evaluate the objectivity of the work until you have reviewed multiple sources that address the same topic.
		☐ Look at the reference list.
		☐ **Book:** Read the preface and introduction.
		    ☐ Read reviews of the book.
		☐ **Article:** Read the abstract and/or introduction and conclusion.
		☐ **Website:** Look for advertisements or pop-up messages.
		    ☐ Look for uncluttered pages.
		    ☐ Look for an easy-to-navigate design.

Audience	☐ Who is the intended audience: scholars/specialists, students, children, the general public, or others? ☐ Is the information written at a level you can understand?	☐ Look for specialized language, either defined or undefined. ☐ Look for language and content that is too elementary for college-level research.

Currency	☐ Do you need up-to-date information on a timely topic, issue, or event?
	☐ Do you need a current perspective on an older issue or event?
	☐ Do you need a first-hand account of an event from the time it actually happened?
	☐ Is the date of update or publication listed?
	Note: Books and peer-reviewed journal articles can take more than a year to publish. In the areas of health, technology, engineering, and science, currency is important, but currency is less important for biographies and works covering the history of a particular topic.
	Also note that *seminal works*, those so central to an area of study that they heavily influence it, never become dated. William Shakespeare's texts, for instance, are regarded as seminal pieces of English literature.
		☐ Check the publication dates of sources used.
		☐ **Book:** Check the publication date, which is usually listed on the first few pages.
		    ☐ Read the preface and introduction.
		    ☐ Check WorldCat.org to see if there is a more recent edition of the book. Multiple editions indicate the book is well regarded enough to have been through multiple revisions and has been updated.
		☐ **Article:** Check the publication date. For print articles, the date is usually listed on the front cover of the journal, magazine, or newspaper. For online articles, the date is usually listed near the top of the webpage.
		    ☐ Read the abstract and/or introduction and conclusion.
		☐ **Website:** Check that hyperlinks work.

Content/ Relevance/ Usefulness	☐ Does the work provide detailed coverage of a topic, an overview of the topic, or a unique perspective on the topic?
	☐ Does the work include original research or a first-hand account of an event or discovery?
	☐ Is the source a secondary account that includes analysis and interpretation of original research or events?
	☐ Does the work address a subject from a specific time period or geographic location?
	☐ Does the whole work or certain sections address your research topic?
	☐ Does the work support or refute an argument?
	☐ Does the work provide background information/an overview of the subject, ideas, opinions, case studies, examples, research results, or statistics you can use to support your points?
		☐ Read the title.
		☐ Read the headings (if applicable).
		☐ Read the first sentence of each paragraph.
		☐ Look at any visuals provided.
		☐ **Book:** Read the book jacket.
		    ☐ Read the preface and introduction.
		    ☐ Review the table of contents/chapter titles.
		    ☐ Use the index at the back to locate specific topics.
		☐ **Article:** Read the abstract and/or introduction and conclusion.

Using the points listed in Table 2, evaluate the quality of the following sources, focusing specifically on source credibility. Be prepared to discuss your responses in class.

- A college student who is accused of plagiarism after copying and pasting large sections of text from the internet into his paper without providing quotation marks or attribution—the student claims that he was taught that method of source integration in high school

- An article in a peer-reviewed medical journal about a treatment for the Zika virus
- A book written by a respected medical doctor who is also the CEO of a pharmaceutical company claiming that there is no link between vaccinations and autism
- An article in a peer-reviewed journal that focuses on nutrition: the article draws conclusions and makes recommendations about portion sizes and types of food that should be consumed for optimal health based on the results of a research study that gathered data from participants via use of self-report logs (the participants made lists of what they ate over a series of days and submitted these to the researchers)
- An entry on the American Psychological Association's "APA Style Blog" (https://apastyle.apa.org/blog/) about how to construct a reference list entry for a conference poster presentation
- A student's research report that bases its recommendations for a campus-improvement project on the findings presented in one peer-reviewed journal article—in the report, the student writer says those findings *prove* the improvement project is feasible

Homework: Produce a Topic Proposal

Identify a subject you would like to explore in a researched argument essay. Your instructor may assign you a subject or ask you to select one. Research the subject by locating and reading sources about it; consult the tables in this chapter for help with identifying and evaluating the sources. Afterwards, compose a topic proposal for the argument essay using the guidelines presented in this chapter. Remember to cite and reference all outside sources you mention and use in the topic proposal.

Use the following multipage handout, produced by Student Academic Success Services, Queen's University (2018), when refining your text to ensure it is concise, precise, and easy to follow.

Modifiers and How to Use Them

A modifier qualifies, limits, enhances, or in some way alters the meaning of a word or other element in a sentence. Modifiers may be single words, phrases, or clauses.

Single-word modifiers are either adjectives or adverbs. Adjectives modify nouns and pronouns (e.g., *His reddened eyes were hidden by mirrored sunglasses*). Adverbs modify verbs, other adverbs, and whole word groups (e.g., *She spoke extremely softly in a flat monotone*). The adverbs modify the verb spoke.

Only adverbs should be used to modify verbs (e.g., *She spoke seriously*). However, a modifier coming after a verb should be an adjective if it describes the subject (e.g., *The students felt bad about their cheating*). The adjective *bad* describes the students' emotional state, not the action of feeling.

Misplaced Modifiers

A misplaced modifier is one that falls in the wrong place in a sentence, causing confusion or awkwardness. Correct placement is necessary to convey clear meaning.

Confusing: *He served steak to the men on paper plates*. (Suggests the men are on the plates.)
Revised: *He served the men steaks on paper plates.*

Limiting Modifiers

Limiting modifiers include *only, almost, even, exactly, hardly, just, merely, nearly*, and *simply*. They should fall immediately before the word or word group they modify, according to meaning. They should appear in front of a verb only if they modify the verb (e.g., *I could hardly move.*). If they limit the meaning of another word in the sentence, they should appear in front of that word.

Unclear: *They only saw each other during meals.*
Revised: *They saw each other only during meals.* (Meals are the only time they see each other.)
Revised: *They saw only each other during meals.* (They do not see anyone else during meals, even if there are others present.)

Not is also frequently misplaced, suggesting a meaning the writer did not intend.

Unclear: *Even after the suffrage movement, all women did not vote.* (Suggests no women voted.)
Revised: *Even after the suffrage movement, not all women voted.* (Some, but not all, voted.)

Dangling Modifiers

Dangling modifiers are word groups that do not logically modify anything in a sentence, e.g., *Passing the building, the vandalism became visible.*

This modifier (*Passing the building*) does not name an actor, so readers expect it is the same as the subject of the following clause (*vandalism*). Although vandalism cannot perform the action of passing a building, that meaning is suggested. The writer has left out the word that the modifier is intended to modify, so the modifier is unconnected to the rest of the sentence--it "dangles."

Revise dangling modifiers by using the following strategies:

1. Rewrite the dangling modifier as a complete clause with its own stated subject or verb (naming the actor in the modifier).

    Revised: *As we passed the building, the vandalism became visible.*

2. Change the subject of the sentence to a word the modifier properly describes (naming the actor in the subject).

    Dangling: *Trying to understand the causes, vandalism has been extensively studied.*
    Revised: *Trying to understand the causes, researchers have extensively studied vandalism.*

Four common kinds of dangling modifiers:
(according to Diana Hacker)

- **Participial phrase**: *Deciding to join the navy, the recruiter enthusiastically pumped Joe's hand.*
- **Preposition followed by a gerund phrase**: *Upon entering the doctor's office, the skeleton caught my attention.*
- **Infinitive phrase**: *To please the children, some fireworks were set off a day early.*
- **Elliptical clause with an understood subject and verb**: *Though only sixteen, UCLA accepted Martha's application.*

These dangling modifiers suggest the recruiter is joining the navy; the skeleton entered the doctor's office; the fireworks intended to please the children; and UCLA is sixteen years old.

Split Infinitives

Traditionally, grammar rules instructed that a modifier should not divide the two components of the infinitive form of a verb (*to* + verb).

Awkward: *The weather reporter advised that we could expect it to not rain tomorrow.*
Revised: *The weather reporter advised that we could expect it not to rain tomorrow.*

However, in some cases it is more natural to split the infinitive, as in this example from Strunk and White: *"I cannot bring myself to really like the fellow."* The meaning is clear, and unsplitting the infinitive would only result in an awkward construction.

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Writing Evaluative Annotated Bibliographies

Dawn Atkinson

Chapter Overview

This chapter aims to help you understand what an annotated bibliography is and how this type of document can be used when planning assignments, conducting research, and evaluating sources. An annotated bibliography generally takes one of two forms: *descriptive annotated bibliographies* reference and briefly describe sources, while *evaluative* (or *critical*) *annotated bibliographies* reference, succinctly summarize, and evaluate resources. Regardless of form, an annotated bibliography may be incorporated into a longer text, such as a formal report, or be produced as a stand-alone piece to document research work—for example, to accompany an in-depth assignment like a researched argument essay. Either way, the sources listed on an annotated bibliography should center on a topic or focus; if the annotated bibliography documents research efforts related to an associated assignment, the focus will reflect the author's thesis, *research questions* (questions that a study seeks to answer), or research objectives.

The remainder of this chapter addresses evaluative annotated bibliographies.

What, specifically, is an evaluative annotated bibliography?

An evaluative annotated bibliography focuses on an overarching topic by listing pertinent references and by providing sentences that discuss and assess the resources identified in those references. Place the reference for a source at the beginning of an annotated bibliography entry, and then craft sentences and paragraphs about the source that do some or all of the following in accordance with the specifications for the assignment.

- Summarize the source's main argument, main point, central themes, or key takeaways.
- Evaluate the source; in other words, assess the source based on criteria. For example, what is your view of the source's usefulness or relevance (in terms of research about a topic), accuracy, trustworthiness, timeliness, level of objectivity, or quality, and why do you hold that view? What methods did the author(s) of the source use to collect data, are they sound, and how did you draw that conclusion? How does the source compare with other publications listed on the annotated bibliography that address the same topic? You will need to read all the sources on your annotated bibliography before you can answer this last question.
- Comment on how the source corresponds with your research aim. How does it fit with, support, or differ from your viewpoint? How has it expanded your thinking on a topic? How might you use the source when writing an associated assignment?

An annotation may also include information about an author's credentials, the intended audience for a source, and the purpose of a text. Note that in technical and academic genres, authors oftentimes foreground the purposes of their works by indicating them early on, to help readers understand the overall direction of the writing. The purpose of a scholarly journal article, for instance, will typically be stated in its *abstract*, which is a summary of the article located after the publication's title but before its introduction.

Why might you be asked to consider author credentials and date of publication when compiling sources for an annotated bibliography?

What does an evaluative annotated bibliography look like?

When constructing an annotated bibliography, follow your instructor's directions about what information to include and how to format the document, and structure its references according to the style conventions specified. References in the following annotated bibliography entries adhere to APA style; the annotated bibliography as a whole also follows APA formatting conventions. The entries, which are adapted from McLaughlin (2020) as cited in Excelsior Online Writing Lab (2020, "Sample Annotated Bibliography"), feature combinations of the annotated bibliography information listed previously in this chapter and center on the topic of the *transferability of writing skills*, or applying knowledge and skills about writing gained in one context to another context—a practice that may advance a writer's knowledge and skills. If you are asked to produce an annotated bibliography for a class, help readers navigate its contents by being consistent about the type of information you supply in each of its entries. In accordance with APA style, the references in the following sample are alphabetized by first author's last name.

Transferability of Writing Skills: Annotated Bibliography

Boone, S., Biggs Chaney, S., Compton, J., Donahue, C., & Gocsik, K. (2012). Imagining a writing and rhetoric program based on principles of knowledge "transfer": Dartmouth's Institute for Writing and Rhetoric. *Composition Forum, 26*. http://compositionforum.com/issue/26/dartmouth.php

In this article, Boone et al. (2012) overview the writing program at Dartmouth College's Institute for Writing and Rhetoric to discuss an example of what a program based on writing transfer research looks like. The authors trace the history of the program's development, explain current curriculum and organization, and look at future directions for the program. Beginning with the idea that skills and knowledge do not all transfer in the same way, program developers at Dartmouth set out to explore what kind of knowledge writing is and how this knowledge is transferred. By developing curriculum and sequences of courses that foster reflection and connections to future courses and by encouraging faculty development, Dartmouth has established a thoughtfully constructed writing program that serves as a model for other such programs. The authors explore the state of research on the program and goals based on the results of their research.

This piece serves as a useful guide composed by writing program administrators and writing researchers who are interested in seeing how current studies of writing transfer can be applied to an operating program. The authors offer practical advice, include sample syllabi and curriculum, and honestly reflect on successes and struggles of the program. This article provides much-needed information for those interested in developing a writing program that aligns with transfer research.

Moore, J. (2012). Mapping the questions: The state of writing-related transfer research. *Composition Forum, 26*. http://compositionforum.com/issue/26/map-questions-transfer-research.php

Moore (2012) reviews the literature on writing skill transfer in this article as a starting point for who those who are interested in the research area and are already conversant in the language of rhetoric and composition studies. The author begins by discussing the history of research on writing skill transfer, describing issues related to common definitions and multi-institutional studies. She also explores the goals and methods of recent investigations and, ultimately, calls for explorations of new areas pertinent to writing transfer research. In doing the latter, she raises important questions about how students' involvement in non-writing courses and non-academic activities may influence what they do when writing.

Moore's article provides a helpful overview of studies in the field of writing skill transfer and establishes a jumping-off point for new investigations in the area. I can use information from the article in my term paper introduction to establish context for the reader before exploring different dimensions of writing skill transfer in the body of the piece.

Wardle, E. (2007). Understanding 'transfer' from FYC: Preliminary results of a longitudinal study. *Writing Program Administration, 31*(1-2), 65-85. http://associationdatabase.co/archives/31n1-2/31n1-2wardle.pdf

In her report on a longitudinal study conducted at the University of Dayton, Wardle (2007) explores the transfer of writing skills from first-year college composition courses. She begins by explaining that research is limited when it comes to transfer of writing skills, even though transfer is seen as a key function of first-year writing courses. The research that does exist indicates that the skills do not transfer well. With this in mind, Wardle established a curriculum designed to support writing transfer and followed students for two years after they had completed first-year composition. Her research indicates that the skills from first-year writing did not transfer well, not because students were unable to make the transfer but because the writing assignments they encountered, along with a variety of other issues, made them feel there was no need to transfer the skills.

This longitudinal study is a foundational piece for writing program directors and serves as a call for more research on writing skill transfer, particularly as it relates to first-year college writing courses. Consequently, lessons gleaned from this study continue to inform writing teachers, program directors, and researchers. In the article, Wardle cites her work with colleague Doug Downs. Together, Wardle and Downs are known as leaders in writing transfer research, which again speaks to the article's contribution as a trustworthy and influential piece of scholarship.

While the above sample focuses exclusively on the topic of writing skill transfer, an annotated bibliography that focuses on multiple topics related to a central theme may organize these under specific and informative headings to help readers distinguish one topic area from another. Additionally, if you are asked to produce an annotated bibliography as a stand-alone document, you may be required to provide an introduction to help set the context for the rest of the piece and to explain its purpose.

What are evaluative annotated bibliographies used for?

Because evaluative annotated bibliographies summarize, evaluate, and consider the relevance of sources, they can be used to narrow a research focus, to weigh up research in an area, and to document research findings. To illustrate, maybe you have been asked to compose an evaluative annotated bibliography on the way to producing a researched argument essay. Although you know which topic you want to write about in your essay, you are less clear about what the research says regarding this topic. After reading a book chapter and several journal, magazine, and newspaper articles on the topic, you begin drafting your annotated bibliography and notice that the sources discuss similar and opposing viewpoints and support these with various pieces of evidence. While you were fairly certain of your perspective on the issue before you began the annotated bibliography assignment, you acknowledge that your view has expanded as a result of reading, writing about, and considering how the sources relate to your researched argument paper. By evaluating the sources for accuracy, quality, and relevance, you are also able to determine which ones best underpin your claims, as well as opposing claims. You are thus able to develop a focused thesis statement and supporting topic sentences for your essay that acknowledge the complexities of the topic. Furthermore, your annotated bibliography documents your research work for readers, communicating which sources you investigated for purposes of composing your researched argument and your evaluations of these sources.

Activity: Produce an Evaluative Annotated Bibliography Entry

Read Michael Bunn's (2011) essay "How to Read Like a Writer," which can be found at https://wac.colostate.edu/docs/books/writingspaces2/bunn--how-to-read.pdf. Bunn teaches in the University of Southern California's Writing Program. After reading, reflect on the essay and its pertinence to your own reading and writing life by answering the four discussion questions on page 85 of the text. Be prepared to talk about your answers in class.

Once you have read, reflected on, and discussed the essay, produce an annotated bibliography entry for the source by following these steps.

Step 1: Write a complete, accurate APA reference list entry for the source.

Step 2: Answer the following questions.

- What qualifications does the author have? Google him to discover additional information about his credentials beyond that already supplied.

- Who is the intended audience for the source?

- What the purpose of the source?

- How do the audience and purpose influence how information is presented in the source?

- What argument does the author make?

- Is the argument convincing? Why or why not?

- How does the source contribute to your own ideas about reading and writing or relate to other sources you have read about reading and writing?

Step 3: Use the notes you have made to draft an evaluative annotated bibliography entry for the Bunn (2011) text. Refer to the information and examples provided in this chapter for guidance.

Homework: Produce an Evaluative Annotated Bibliography

Identify a topic of inquiry you can explore via means of an annotated bibliography. Your instructor may assign you a topic or ask you to select one. Research the topic by locating and reading sources about it; a librarian can help you identify a focused list of sources. Afterwards, compose an evaluative annotated bibliography that references, summarizes, and evaluates the sources. Your instructor may also ask you to identify author credentials and the intended audience and purpose for each source. In addition, you may be asked to discuss how the sources relate to a larger research aim. Since the evaluative annotated bibliography is a stand-alone assignment, supply an introduction to help set the context for the rest of the piece and to explain its purpose.

After drafting your evaluative annotated bibliography, your instructor may ask you to assess it using the rubric criteria outlined in Rinto (2013, p. 10) in order to refine its content. The rubric is provided here in adapted format for your reference.

Currency of Source	Student does not identify the date the source was created/published	Student identifies the date the source was created/published but does not use this information to determine if the source is appropriate for the research project	Student identifies the date the source was created/published and uses this information to determine if the source is appropriate for the research project
Relevance of Source	Student does not state how the source is useful for the research project	Student states that the source is useful for the research project but does not explain why the source is relevant (for example, does it contain background information, lead to other useful sources, provide a specific type of evidence, or answer a research question)	Student states that the source is useful for the research project and establishes the relationship between the source and the research topic, using specific examples from the source and placing them in the context of the project
Accuracy of Source	Student does not discuss the correctness and trustworthiness of the information in the source	Student discusses the source's correctness and trustworthiness but takes the information presented at face value without considering the evidence for the information and how that information can be verified elsewhere	Student discusses the source's correctness and trustworthiness and addresses the quality of information it presents; student also considers the argument or evidence present in the source and how that information can be verified
Authority of Source	Student does not identify the author, publisher, or organization for the source	Student identifies the author, publisher, or organization for the source but does not use this information to determine if the source is appropriate for the research project	Student identifies the author, publisher, or organization for the source and uses this information to determine if the source is appropriate for the research project
Purpose of Source	Student does not consider the purpose of the source	Student discusses the purpose of the source but does not evaluate how this purpose affects the information in the source	Student discusses the purpose of the source, identifies potential bias or conflict of interest, and justifies why the source is still credible for the research project

When refining your annotated bibliography, use the following handout, produced by the Writing and Communication Centre, University of Waterloo (n.d.), to ensure you have used the words *that* and *which* correctly.

WHICH VS THAT: RESTRICTIVE AND NON-RESTRICTIVE CLAUSES

Which and ***that*** both introduce clauses (groups of words) that provide more information but are **not grammatically necessary** to the sentence.

e.g., The daily special, ***which was poached salmon****, cost a lot.*
e.g., The dish ***that the sous-chef prepared*** *turned out to be better than the daily special.*

Using Restrictive Clauses: That

Use ***that*** when the information in the clause is **necessary** to the meaning of the sentence. It's called a restrictive clause because it **limits** or **affects the purpose** of the sentence.

e.g., Suitcases ***that weigh more than 23kg*** *must be checked.*

> ***that weigh more than 23 kg*** is necessary to the point of the sentence. If you removed this restrictive clause, it would imply that all suitcases must be checked, which isn't what the author intends.

e.g., Drinks ***that have caffeine*** *make it hard to fall asleep.*

> ***that have caffeine*** is also restrictive. If you take this part out, it suggests that all drinks make it hard to fall asleep.

Some writers will use ***which*** for a restrictive clause instead of ***that***. This is technically fine, but if you are having any confusion about the distinctions between restrictive and non-restrictive clauses, it is better to maintain a clear distinction between ***that*** and ***which***, for clarity's sake.

Using Non-Restrictive Clauses: Which

Use ***which*** when the information in the clause is **not necessary** to the meaning of the sentence. It might be helpful or interesting, but if you took it out, the sentence would still make sense.

e.g., The suitcase, ***which was stuffed with dirty clothes****, didn't fit in the overhead bin.*

> If ***which*** was removed:
> *e.g., The suitcase didn't fit in the overhead bin.*

e.g., Coffee and tea, ***which both have caffeine****, are Canada's favourite morning drinks.*

> If ***which*** was removed:
> *e.g., Coffee and tea are Canada's favourite morning drinks.*

Note that the non-restrictive ***which*** clause is set off by commas.

Use ***that*** without commas for a **restrictive** (necessary) clause. ***That*** is required more often than ***which***. Use ***which*** with commas for a **non-restrictive** (not necessary) clause.

UNIVERSITY OF WATERLOO

THE WRITING and Communication CENTRE

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Writing Essays

Dawn Atkinson

Overviewing the Chapter

The current chapter focuses on *essays*, pieces of persuasive writing developed around defined topics. This genre's persuasiveness rests in large part on its logical structure, inclusion of quality evidentiary support, and consistent design, as explained herein; hence, essay writing calls for planning, researching, synthesizing, and revising. Although essays are generally considered a form of academic rather than technical writing, the division is not absolute, and the prevalence of essay assignments in both writing and other university-level courses merits our focus on them here.

While reading this chapter, keep in mind that college essays typically require use of a formal writing style, although the specifics may vary depending on the particular assignment and area of study. For an overview of formal writing guidelines, see the George Mason University Writing Center's (2017) handout entitled "Reducing Informality in Academic Writing" (https://writingcenter.gmu.edu/guides/reducing-informality-in-academic-writing).

Essays can be divided into two broad types: expository and argumentative essays. To define these categories using information adapted from Student Academic Success Services, Queen's University (2018b, para. 13), expository essays explain—they teach, illustrate, or clarify a subject for a reader—while argumentative essays make claims and seek to convince a reader to accept a position or point of view.

Focusing an Essay

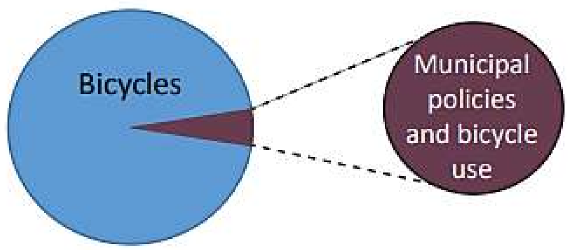
For an essay topic to be manageable, its focus must be narrow enough so that it can be addressed adequately within the word or page count available; however, the topic should not be so narrow so as to impede your research efforts. When deciding on a topic, conduct initial research using library or internet resources to get a sense of current scholarship in the area, as well as points of agreement and contention, which may lead you to a focused direction for research. To pinpoint your particular interest in a topic, you might also consider using listing, mind mapping, outlining, freewriting, looping, or questioning, the brainstorming strategies described in the "Maintaining a Productive Writing Schedule" chapter of this textbook. Talking with your instructor or a librarian about a topic may also help you decide a paper's focus.

What other methods could you use to narrow the focus of an essay?

Figure 1, a multipage handout adapted from the Writing and Communication Centre, University of Waterloo (n.d.-a, pp. 2-3), illustrates the process of narrowing an essay topic.

Narrowing Your Topic

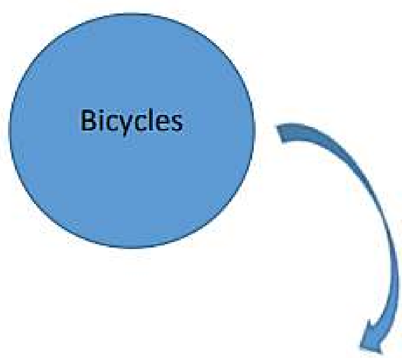
Narrowing your topic makes your work more manageable and your paper more likely to succeed. A good paper takes a smaller portion of a larger issue or problem and investigates that part in depth. Narrowing your topic allows you to choose a problem that is specific enough to research with vigour. Below is an example of the process:

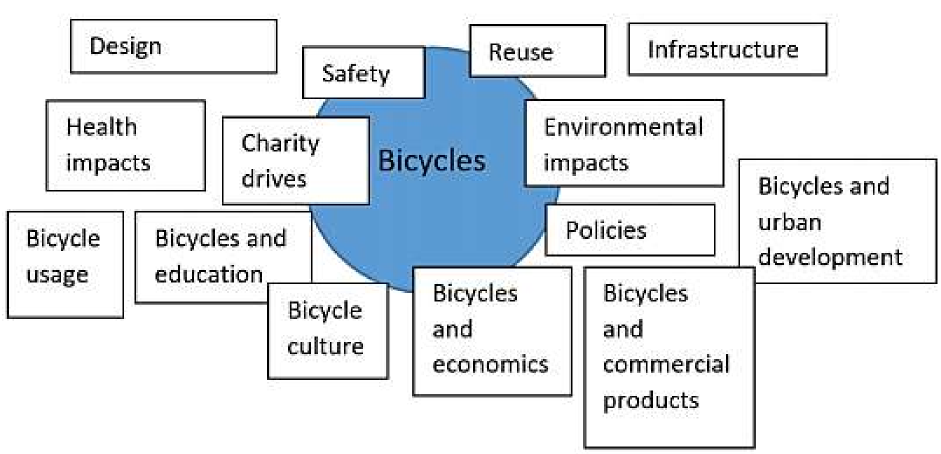


Move from abstract to concrete

A manageable topic is concrete. As we narrow the scope of a topic, the subject matter moves from abstract concepts to ideas that are more precise. Let's use bicycles, again, as our example.

Although bicycles are concrete "things," the word bicycles could mean different things to different people. These ideas, such as design, bicycle culture, or infrastructure, are subtopics of "bicycles."





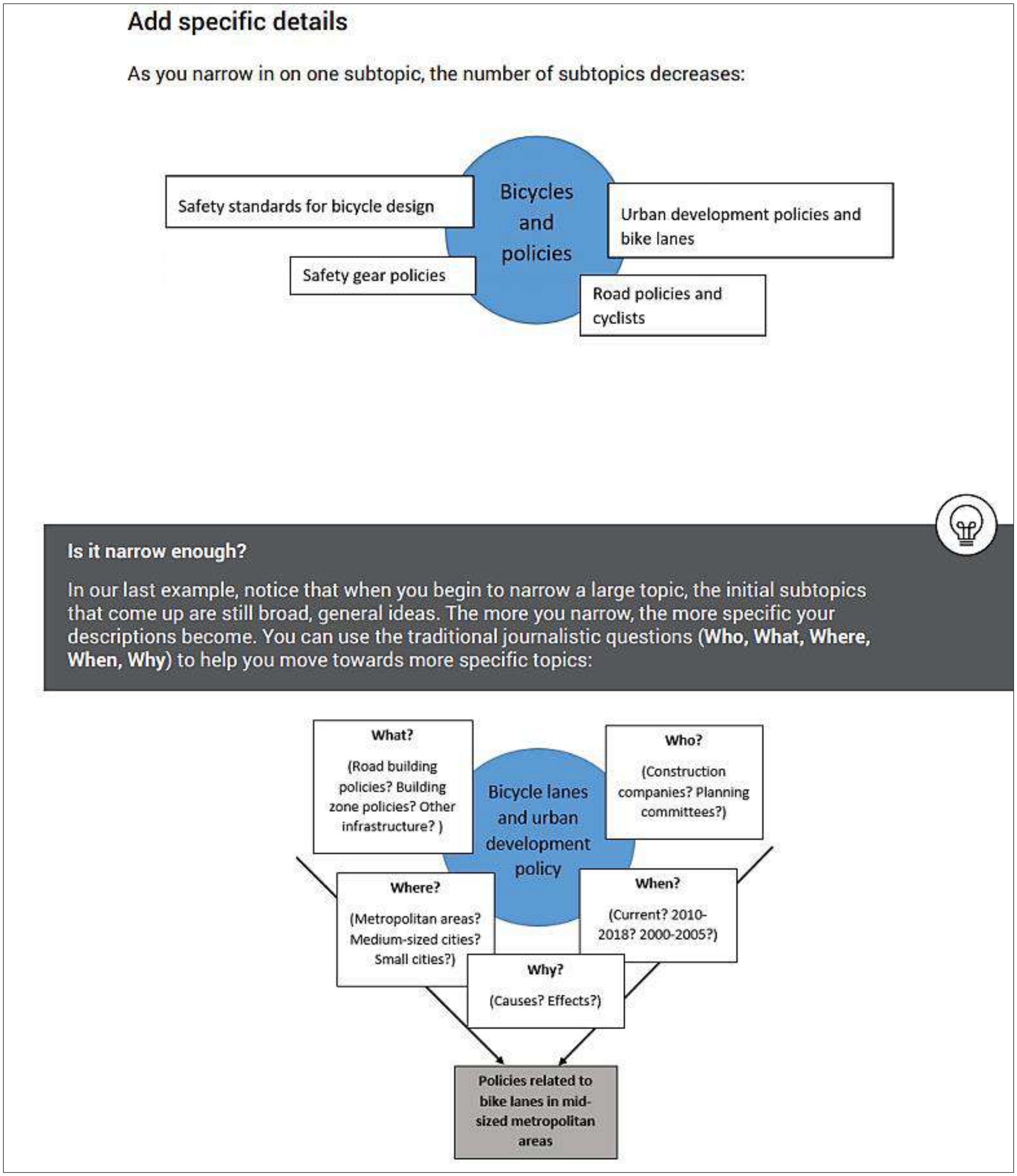


Figure 1. Narrowing a topic so that it can be feasibly addressed in an essay

As the handout illustrates, deciding upon a suitably narrow essay topic is a process that may require several attempts to complete. Regardless, devoting time to this initial planning process is a wise investment since a defined essay topic will usefully guide a paper's development.

Structuring an Essay

Essays, like letters and memos, follow an introduction, body, and conclusion structure, although these sections may also be subdivided. The sections need to be fully developed to coherently deliver an essay's central message to readers. They also need to be proportionate to an essay's overall length: for instance, a brief essay requires a brief introduction and conclusion, whereas an extended essay can accommodate a longer introduction and conclusion. In general, budget 10 percent of the paper's word count for the introduction, 80 percent for the body, and 10 percent for the conclusion.

<u>Composing an Introduction Section</u>

An essay introduction establishes context for the reader by commencing discussion of the document's central message, around which all the other content will coalesce, and by revealing how the essay will unfold. To be more specific, the introduction delimits the scope and purpose of the essay so that readers understand its direction, range of coverage, and intent.

The context-setting information provided at the beginning of an introduction might include definitions of key terms that will be used throughout the rest of the paper, a summation of how something works, essential background on the topic to be addressed in the piece, or articulation of circumstances pertinent to a problem—perhaps a concise discussion of historical events surrounding the topic, previous research conducted in the area, or treatment of the topic in the news. A writer has considerable leeway when deciding how to articulate context-setting information, and inventiveness in this section can help draw readers into the essay. Schall (2014, para. 7), for instance, describes how *narration*, storytelling in other words, can be used to stimulate reader interest in an essay. The following examples, adapted from Schall (para. 7), present the initial lines from two essay openings, one focused on the "generic nature of America's highway exit ramp services" and the other on shape constancy in relationship to human visual perception, to demonstrate the interest that narration can inspire.

- The observation struck me slowly, a growing sense of déjà vu. I was driving the endless miles of Interstate 70 crossing Kansas when I began to notice that the exits all looked the same. → Notice how the writer uses *I* to communicate his/her experience.
- Our eyes often receive pictures of the world that are contrary to physical reality: a pencil in a glass of water miraculously bends and railroad tracks converge in the distance. → Notice how writer omits *I* but is nevertheless reflective about the subject matter.

Regardless of the flavor of context-setting information you provide in an essay, the information should help readers connect with the text's central message. Therefore, avoid beginning an essay with an overly general statement, such as "People argue about many controversial topics," that could apply to any number of papers. This kind of nondescript material wastes readers' time.

An essay's central message is delivered in its *thesis statement*, a sentence, sometimes more, that articulates the theme of the paper and the writer's view on it. The thesis thus explains the paper's controlling idea by specifying what the writer has to say about a particular topic and by clarifying what will and will not be covered. The thesis statement is typically placed at or near the end of the introduction to initiate the reader's progression into the rest of the paper. Schall (para. 8) explains that a well-written thesis statement should be inexorably tied to the essay it accompanies, carefully constructed, and revealingly focused: "concretely announce the most important elements of your topic and suggest your fundamental approach—even point [readers] toward the paper's conclusion if you can." The following two thesis statement examples, adapted from Schall (para. 9), fit this description.

- This paper reviews the problem of Pennsylvania's dwindling landfill space, evaluates the success of recycling as a solution to this problem, and challenges the assumption that Pennsylvania will run out of landfill space by the year 2024.
- As this paper will show, the fundamental problem behind the Arab-Israeli conflict is the lack of a workable solution to the third stage of partition, which greatly hinders negotiations for peace.

Notice that each example indicates the paper's unifying theme and the writer's viewpoint on the matter.

Developing an effective thesis statement for an essay requires work on a writer's part. Try using these steps, adapted from the Writing and Communication Centre, University of Waterloo (n.d.-c, "Building Effective Thesis Statements"), when building a thesis statement to make the task more straightforward.

1. Read the assignment directions carefully so you are clear about the expectations.
2. Conduct preliminary research to gather and organize information about your topic.
3. Construct a tentative thesis statement. These questions may help you focus your research into a tentative thesis.
    a. What is new about this topic?
    b. What is important about this topic?
    c. What is interesting about this topic?
    d. What have others missed in their discussions about this topic?
4. Conduct additional research once you have narrowed your focus in order to find evidence to support your thesis. As you research, your understanding of the topic may further develop and evolve.
5. Refine your thesis statement so it clearly expresses your angle or position.

As this list points out, an effective thesis statement typically develops over time and with concerted effort.

A thesis statement should fulfill the functions set out in its definition otherwise it will not guide the development of an essay. The following list, adapted from McKeever (n.d.-c, paras. 12, 16, 17) and Sweetland Center for Writing, University of Michigan (2020a, para. 8), identifies markers of weak thesis statements.

- **A simple observation** (Example: NASA scientists regularly conduct experiments in space.) Although an observation may be true, it cannot initiate a lively and extended discussion of the multiple views surrounding a complex topic.
- **A statement of fact** (Example: Some people are opposed to stem cell research.) To determine whether a statement is a fact, ask if anyone could reasonably disagree with it. If everyone would agree that the statement is true, it is a fact, meaning that it is not open to interpretation or discussion.
- **A broad generalization** (Example: Politics requires working for the people.) It may seem that a broad thesis statement creates the possibility for numerous essay directions, but broad issues contain too many specific arguments within them, and making a broad claim leads to making a shallow argument.
- **A question** (Example: Why are self-service checkout machines popular in stores?) A thesis must be phrased as a statement, although you might decide to narrow the focus of an essay by devising a *research question* (a question that a research project seeks to answer). A thesis statement answers a research question in sentence form.
- **A misleading statement** (Example: This essay will prove that a person who is old enough to vote and serve in the armed forces should be allowed to drink alcohol too.) The word *prove* points to a fact, something that is indisputable, and a thesis cannot be a statement of fact. More troubling about the example, however, is that an essay cannot irrefutably prove something, so the statement is misleading.
- **A statement that uses figurative language** (Example: The runaway train of individualism must be controlled and not allowed to jump the tracks and obliterate innocent bystanders.) A thesis statement should enable a reader to clearly and immediately identify the focus of an essay. Figurative language, such as that used in the example, is wordy, vague, and quite frankly confusing, so avoid it.
- **An unfocused statement** (Example: I think the inconsistent penalties for drunk driving, even if enhanced, because of the impact of drinking and driving on families who lose their children, fathers, mothers, or other family members to death and/or disability, are not strict enough in the various states, allowing drunk drivers to go free although there is a high risk of offending again.) A thesis statement that contains multiple clauses and lists is confusing. Oftentimes, such statements also present details that should be

discussed in body paragraphs. Remember that a focused thesis statement identifies and delimits the direction of an essay, as this revised example does: The United States needs a consistent, national law that strips drunk drivers of driving privileges for five years after their first offense. Notice that the revised example omits *I think* since the phrase is redundant; the writer's view is implicit in the sentence. In general, avoid the phrases *I think*, *I feel*, and *I believe* since they add unnecessary words to an essay and give the appearance of uncertainty.

Prevent the thesis statement problems listed by focusing on a specific topic and articulating your view on that topic in a clear, concise, and unambiguous way. In addition, be prepared to revise the thesis statement as necessary during your essay's development.

Depending on assignment specifications, disciplinary conventions, educational context, or authorial choice, a writer may integrate a *route map*, a brief outline of the specific topics the essay will cover and in what order, in the thesis statement or provide this information in a separate sentence or sentences at the end of the introduction. The order of topics in the route map should match the sequence in which they are addressed in the body of the essay; the route map thus serves as a skeleton outline of the essay by giving readers a sense of how the text will be organized.

The essay introduction structure described here takes the form of the inverted triangle presented in Figure 2, with the reader connecting with broad context-setting information before moving on to a more narrow discussion of the essay's focus area and organizational structure provided in a thesis statement and route map.

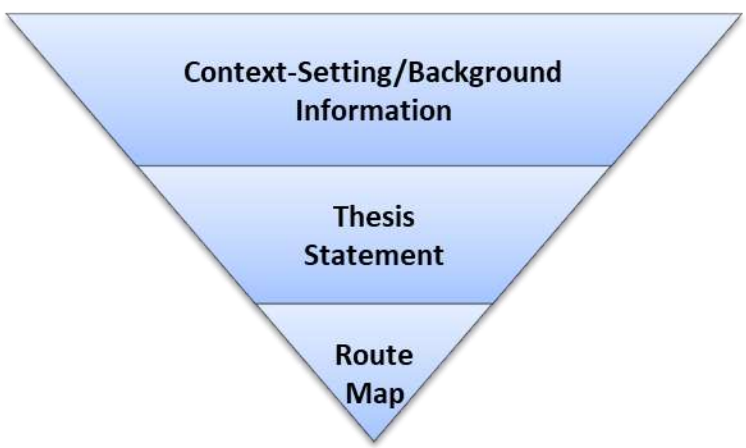


Figure 2. Moving from general to specific information as an essay introduction proceeds

Figure 3, adapted from the Academic Writing Help Centre, Student Academic Success Service at the University of Ottawa (2016c, para. 10), shows the introduction elements at work in a sample paragraph.

> Why is industrial expansion more important than the survival of valuable ecosystems? Last year, that kind of priority resulted in the death of 600,000 red-tailed swallows in Ungolu. While environmentalists protest the destruction of the Ungolu rainforest for the sake of its wildlife, and particularly for the sake of the red-tailed swallow, the inhabitants of the area demand more land for cattle and living space and require more wood to generate revenue. Although the residents insist their society depends on logging practices, this does not justify the effects of these practices. Without a change in policy, the red-tailed swallow will most likely disappear in just a few years. The extinction of this species must be prevented because it would have a devastating impact on the Ungolu rainforest. As this paper will show, the clear-cutting of the rainforest has already eliminated much of the natural habitat of the red-tailed swallow, thus reducing the population growth rate of a species that plays a vital part in maintaining the balance of the ecosystem. Its extinction would result not only in the destruction of the rainforest, but in the destruction of the ecology that it shelters in as well. Moreover, the extinction of the red-tailed swallow is unnecessary—there are more ecological and long-lasting ways to ensure the economic development of Ungolu than logging.

Context

Thesis

Route map (outline)

Figure 3. An introduction with context-setting, a thesis statement, and a route map

If an introduction is clearly focused, comprehensibly organized, and grammatically and mechanically sound, it can inspire a reader's interest in the remainder of the essay.

Composing a Body Section

The body of an essay expounds upon the central theme articulated in the text's thesis statement until that theme is fully developed. The body section is divided into paragraphs, and each paragraph centers on one main point that unifies the content of the paragraph and is articulated through an explicit or implied topic sentence. A *topic sentence* encapsulates a paragraph's focus, and in technical writing, explicit topic sentences typically appear at the beginnings of paragraphs to expediently deliver needed information to readers. Using this structure, everything that follows the topic sentence in a paragraph—examples, illustrations, explanations, quotations, paraphrases, summaries, reasons—supports the point made in the topic sentence. If a writer instead opts to use an implied topic sentence, he or she may discuss a source, viewpoint, question, or piece of evidence slowly in the paragraph, allowing the paragraph's momentum to develop the text's key takeaway. The reader is consequently responsible for inferring the paragraph's topic sentence in this situation. Whether the topic sentence is explicit or implied, the reader should leave the paragraph with a clear understanding of its main point.

To successfully communicate a paragraph's main point and give readers a sense of the paragraph's direction, a topic sentence must be specific. A topic sentence that simply announces the subject matter of a paragraph—"In this paragraph, I will discuss…"—does not fit this description, as the professionals at Student Academic Success Services, Queen's University (2018a, para. 5) explain. To devise a precise alternative, think carefully about the paragraph's key takeaway and how that point ties in with surrounding paragraphs and ultimately links back to the essay's thesis statement; then try to articulate the key takeaway in one focused and unifying umbrella sentence underneath which all the other points in the paragraph fall.

In the process of developing an essay's central theme through the inclusion of focused topic sentences and relevant and substantive follow-up sentences, the body section of an essay aims to be compelling: for example, an author might try to convince readers to adopt his or her position on an issue; to take a careful look at a text and how it is constructed; to contemplate the layers of complexity surrounding an area of investigation; or, more generally, to consider the well-informed nature of the essay and its fluid delivery of information. The body section thus involves persuasion. To address an essay's central theme in a comprehensive and fair way, a writer who aims for maximum persuasiveness will speak to the multifaceted perspectives surrounding points of discussion rather than focusing exclusively on his or her own viewpoint. The latter signals bias in an argument, a situation to avoid in academic and technical writing.

Writers may employ certain patterns of development to present information in body paragraphs so that it is logical and compelling. The following list, adapted from Student Academic Success Services, Queen's University (2018b, paras. 12, 17-21), describes a number of these patterns.

- **Description:** Conveys specific details about the look, taste, smell, sound, or feel of something.
- **Illustration/Example:** Illustrates a general concept with specific examples or uses an example as evidence to support a point.
- **Spatial:** Describes how something looks in relationship to how it occupies space (e.g., inside to outside, top to bottom, front to back, or left to right).
- **Comparison/Contrast:** Examines two or more things to determine their similarities and differences using clearly defined criteria.
- **Cause/Effect:** Examines the causes that have led to certain results.
- **Evaluation:** Measures something by examining it in relation to a given set of criteria; may discuss the thing's strengths and weaknesses in light of this evaluation.
- **Classification:** Examines something by dividing it into categories or subtypes.
- **Sequence/Process:** Explains how something works in sequential or step-by-step fashion.
- **Narration:** Tells a story in chronological order.
- **Definition:** Explains the distinguishing features of something.
- **Order of Importance:** Places the most important information in a strategic place to affect reader perception.

Writers may combine these patterns when developing body paragraphs or use them separately; assignment directions may also specify the use of a particular pattern in an essay.

Figure 4, adapted from the Academic Writing Help Centre, Student Academic Success Service at the University of Ottawa (2016a, para. 11), demonstrates elements of persuasion at work—in this case a viewpoint (claim) supported with a reason and evidence—in an argumentative body paragraph.

What do you think of the paragraph? Apart from the argument elements identified in the paragraph, what else helps to make it persuasive?

The extinction of the red-tailed swallow would not stop at the elimination of only one species. Since the red-tailed swallow is a vital part of the Ungolu rainforest's ecosystem, its absence would affect the entire forest. For instance, this bird is the only insectivorous predator in the region that has a beak suitable for digging corkscrew beetles out of the bark of a tree; hence, it is the only major predator that controls the insect's population (Andrews, 2010). However, the beetle's numbers have already begun to grow dramatically in Ungolu (Bates, 2012), and numerous studies point to the correlation between the rise in the corkscrew beetle population and the drop in the red-tailed swallow population. Observers can therefore assume that, without the red-tailed swallow, the corkscrew beetle will reproduce unchecked and destroy the Ungolu rainforest, along with the ecology that it supports. Indeed, the corkscrew beetle "is strictly herbivorous—it bores into trees and consumes them from the inside out. Multiple beetles can live in and feed off the same tree, killing it in less than three weeks before moving to the next" (Cooper, 2011, p. 43). This example clearly shows that the presence of the red-tailed swallow is invaluable for wildlife preservation. Consequently, finding sustainable solutions to prevent its extinction is of paramount importance.

Topic sentence

Reason for the view (claim) expressed in the topic sentence

Supporting ideas

Supporting evidence and indication of what the evidence means in terms of the argument

Transition to next paragraph

Figure 4. A body paragraph containing a claim supported with a reason and evidence

While Figure 4 uses a quotation as evidence to support a claim, evidence in body paragraphs can take many forms: for example, summaries, paraphrases, tables, figures, equations, anecdotes, personal experiences, facts, statistics, and numerical and word field data.

Composing a Conclusion Section

A conclusion emphasizes an essay’s central message by reiterating its thesis (without repeating it word for word) and summarizing its key points. Because a conclusion brings an essay to a cohesive end, it should not discuss new information; instead, it should follow on logically from content already covered. A conclusion’s very definition—“an articulated conviction arrived at on the basis of the evidence you have presented” (Schall, 2014, para. 15)—points to its unifying function. The following conclusion sample, adapted from Schall (para. 16) and excerpted from the paper “Exercise in the Prevention and Treatment of Osteoporosis in Women,” reflects directly on the paper’s hypothesis, stated in the introduction, and presents a logical realization of the paper’s goals.

> The majority of evidence presented in this paper supports the hypothesis that exercise positively affects bone mineral density in both premenopausal and postmenopausal women. Importantly, exercise has been shown to increase bone mineral density in premenopausal women even after the teenage years, and it helps preserve the bone mass achieved in the subsequent decades. Evidence also shows that exercise adds a modest amount of bone mass to the postmenopausal skeleton. As these findings demonstrate, women of all ages can benefit from regular weight-bearing exercise, an increased intake of calcium-rich foods, and—for postmenopausal women—the maintenance of adequate estrogen levels. Women of all ages can prevent osteoporosis or lessen its severity by making appropriate lifestyle choices.

If you experience a roadblock when constructing a coherent conclusion such as this, Schall (para. 14) recommends reviewing the essay’s introduction and body to revisit what the paper set out to do and how it accomplished its aims or reviewing these sections to determine the paper’s contributions to the particular research area addressed.

While focusing squarely on the essay’s central message and the document’s particular purpose, a conclusion may also discuss how the essay’s findings compare with other research in the area; emphasize the implications of the findings (what they mean and why they are important—the *so what*, in other words); consider the limitations of the research conducted for the essay; or make recommendations for further research. Again, these elements should link back to the essay’s central message so readers understand the context for their discussion. Here is a conclusion example, adapted from the Academic Writing Help Centre, Student Academic Success Service at the University of Ottawa (2016b, para. 7), that emphasizes the essay’s central message and summarizes its key points before underscoring the implications of the findings and proposing a solution to the issue discussed in the paper.

> In the end, there is no way to deny the seriousness of the environmental threat. If the current clear-cutting practices continue, the Ungolu rainforest will be unable to support the red-tailed swallow, and it will become extinct. Without this bird, the tree-eating corkscrew beetle will have nothing to stop its spread, and it will disrupt the rainforest's

> ecosystem even further. Although the inhabitants of the area request the commercialization of land and wood to encourage the economic development of Ungolu, initiatives with regard to ecotourism and biological agriculture can be pursued to ensure both the growth of the economy and the survival of the red-tailed swallow. Because of the dire environmental consequences of its extinction, it is vital that this species be preserved—and it is possible to do so with a reasonable amount of effort and resources. Indeed, the best way to encourage the inhabitants of the area to let the Ungolu rainforest recover is for northern countries to stop purchasing the products obtained from logging practices and to subsidize the local initiatives discussed in this paper, otherwise the local population will not be motivated to make a significant change. Without quick and decisive action, rainforest tracts will be eliminated, and the inhabitants of the area will be even worse off than before the introduction of logging.

The implications and call to action discussed in this conclusion coherently link back to the introduction and body sections of the essay.

Gathering Quality Evidence for an Essay

In addition to a logical structure, an essay's effectiveness largely hinges on the quality of its evidentiary support. Evidence that is inaccurate, untrustworthy, irrelevant, insufficient, dated, or flawed in some other way is unlikely to convince a reader to adopt a writer's perspective and may actually inspire the opposite effect. On the other hand, sound evidence can contribute to the persuasiveness of an essay and demonstrate a writer's research ability. While the "Writing Topic Proposals" chapter of this textbook supplies tips for evaluating the quality of sources and the evidence they provide, the multipage handout in Figure 5 (adapted from McKeever, n.d.-a) offers additional points to consider.

Does anything on the handout surprise you? Why or why not?

Post-truth: Evaluating Sources

They say it's a post-truth world out there: people choose political and policy positions based on their feelings and seemingly independent of verified facts, logic, or critical thought. This unfortunately includes those writing news and magazine articles and blog posts. We need to educate ourselves to get past that, to authentic credibility and post-post truth, so to speak.

We have two reasons to develop a habit of evaluating sources: first, our credibility as student writers is based in part on the credibility of the sources we use. Maybe more importantly, our ability to think clearly and to thoughtfully evaluate events, policies, and persons depends on our being able to separate feelings, opinions, and wishful thinking from facts.

Evaluation checklist

It takes some investigation to figure out how trustworthy a source is—that is, how clearly it separates feelings from facts, as well as how factually accurate it is. Digital news gathering and reporting is now widely distributed and accessible to a worldwide army of "citizen journalists" who may or may not adhere to traditional journalistic disciplines. Most of the time there are no information gatekeepers to check facts, so you have to be ready to do your own investigating. Click around your source websites, including `Contact` and `About Us`, and use the following checklist as a guide:

- ☐ Did you see it on social media? Red flag! Verify the story from several other sources. See Social Media, below.
- ☐ Is there a named author? Does he have experience or expertise in the subject matter? Avoid anonymously written articles or articles written by named authors but outside their area of expertise.
- ☐ Does the author cite or otherwise acknowledge her own sources?
- ☐ If you check her sources, do they exist, and does she seem to represent them fairly?
- ☐ Is the author honest and up front about his own biases or self-interest?
- ☐ Is the information recent and based on the latest available facts?
- ☐ Is it written in an appropriate tone and style?
- ☐ Is there a publication date? A copyright date?
- ☐ How long has the source existed? New websites spring up every *minute*. Go with one that has a history, an established audience, and a track record.
- ☐ Is the website well maintained, with few or no 404 (not found) errors or broken links?
- ☐ Put on your thinking cap: Does the information *seem* realistic? Does the information match your own prior knowledge?

Dot-org, -edu, -gov, and -com

Think about the type of source. Organization, education, or government websites might seem more reliable than dot-coms, but consider them on a case-by-case basis. We are often told, for instance, that dot-orgs are better sources than dot-coms. However, reputable, objective news sites are often dot-coms, while a political party that is a dot-org may be highly partisan and biased, even to promoting ideology over facts. Bearing this in mind, the following list ranks website examples from generally more reliable to less reliable:

- Books and academic journals (*American Historical Review*). These usually involve independent editors or professional peers who review the material before publication. Access peer-reviewed journals through library subscription databases like *Ebsco* or start with Google Scholar, below.
- Newspapers and popular magazines, paper or online versions (*The Washington Post, Science, Popular Mechanics, Newsweek*). There are usually editors and an established pre-publication process.
- Web pages sponsored or owned by established news, special interest, or government organizations (cnn.com, lupus.org, nih.gov). Again, editorial oversight and pre-publication screening are the norm.

- Corporate or commercial websites (groworganic.com, starbucks.com). They may want to sell you something, but they may also offer expert content with genuine value (it's how they drive traffic to their sites). However, quality control can vary.
- Personal websites or blogs with an identified author (pinchofyum.com). The author is willing to associate his name with the blog, so you might infer that he means well. However, blogs vary in quality and reliability.
- Personal websites or blogs without a named author. For blogs associated with commercial sites (sowtrueseed.com), the staff may collaborate in writing the posts, attributing articles as a matter of policy to the organization instead of the individuals. In other cases, though, authors might wish to conceal their identities (endalltyranny.wordpress.com).
- Wikis (*Wikipedia*). There may be some (or no) pre-publication screening of articles, though the collective "mind" of the wiki often arrives, eventually, at an objective product rivaling more traditional media. In any case, wiki articles are written and rewritten by groups of users usually unknown to the public (though they may be known to the moderators). See Wikis, below.

Wikis

Wikipedia is probably the most well known of the wikis, which are collaborative sites allowing members to write and edit each other's posts. For obvious reasons, Wiki articles are not attributed to individual authors and can vary in quality and accuracy. Content can also change as users revise and edit posts. Usually wikis are not reliable sources for academic papers, although good citations from a well cited wiki article can help you find reliable sources elsewhere. (Yes, even *Wikipedia* wants its contributors to cite sources!)

Google Scholar

If you don't have subscription access to peer-reviewed journals as you would through a college library, one online resource to try is Google Scholar. Not everything is available in full text, and you might have to start with abstracts (summaries) and try to get hold of the full article at a local library. The pdf link, if there is one, is usually full text. Google Scholar offers you links to related articles as well.

Social media

Social media like Facebook are not, themselves, the sources of the articles you read there. You must follow them back to their original sources and evaluate them in that context. Don't stop there, though—verify social media-shared articles from several other sources.

Social media were famously implicated in the "fake news" scandal of election year 2016. Some news items that appeared in users' Facebook feeds were outright fakes. However, even those that were not fake had the potential to mislead in a uniquely insidious way. The prime example was Facebook, which had programmed rules to "learn" users' interests and political bents from their previous postings and click activity, and then deliver similar articles, hoping to elicit more clicks, which caused even more similar articles to appear, which elicited more clicks.....So news that users got from their social media feeds was suspect on two levels. One was that some stories were actually fakes, and the other was that the stories people saw became increasingly biased and less representative of the whole truth.

Search results and aggregators

Search results—that page of headlines, links, videos, and images you get in response to a search—are not, themselves, sources, so you can't cite Google as your source (unless you're citing a blog post or press release written by Google). You need to click through to the source document and cite that. Similarly, news aggregators like Yahoo News or Reddit collect news items from many different contributors and sources. You must cite the original source, not the aggregator. (Occasionally a site like Yahoo News writes its own news stories, usually without naming an individual author.)

Figure 5. A guide to evaluating information sources

You might decide to use the checklist items in Figure 5 to evaluate sources of information for your essay. Figure 6 (Webber, 2018, p. 1) presents an alternative tool: a visual scorecard for source evaluation.

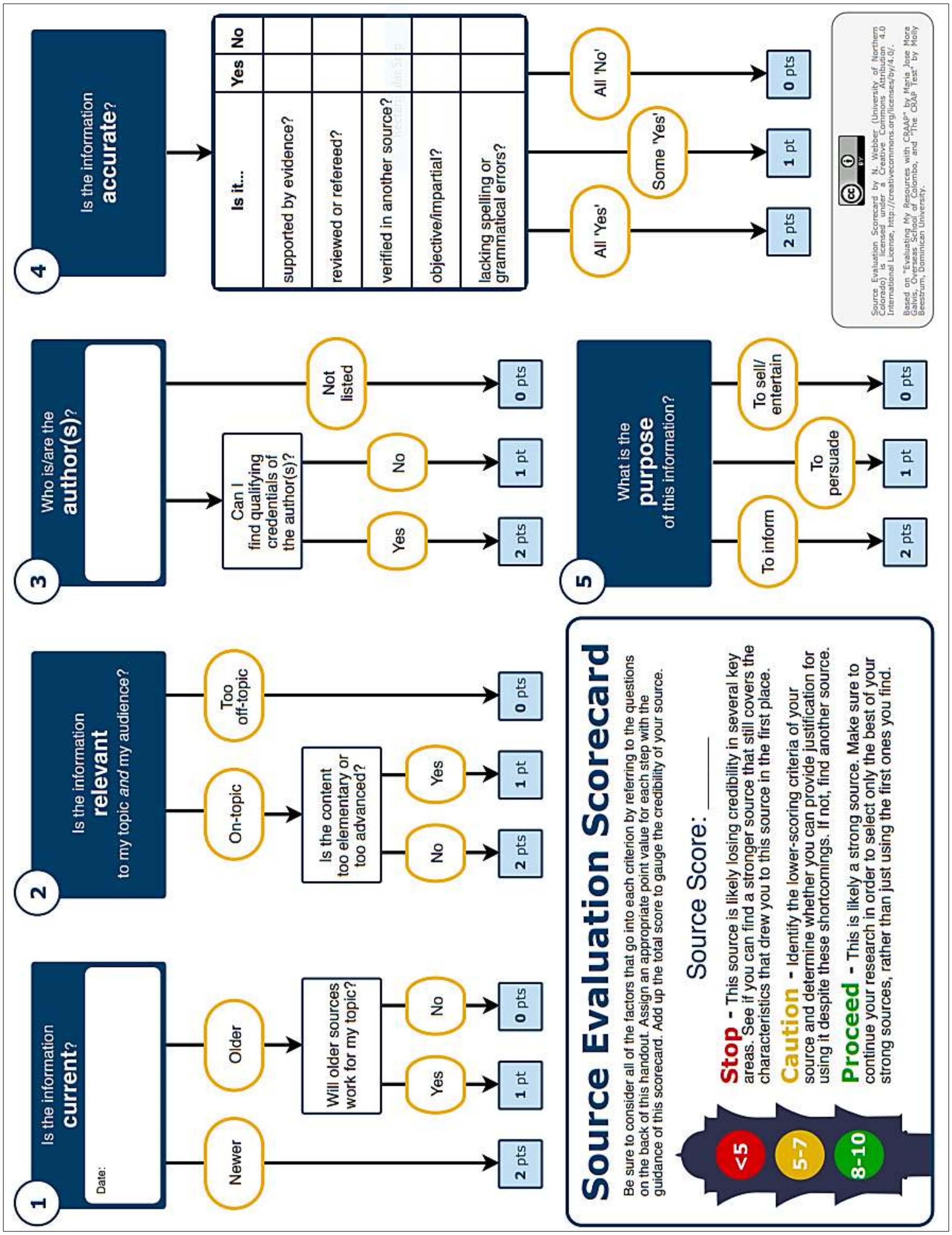


Figure 6. A scorecard tool for evaluating source information

The instruments in figures 5 and 6 can help you apply consistent evaluation criteria to potential sources of evidentiary information for an essay.

Incorporating Quality Evidence into an Essay

After locating quality evidentiary support for an essay, you must incorporate it into your text in a logical and ethical way so that readers understand its presence, its origin, and how it relates to your own ideas. Quotation, paraphrase, and summary offer three means by which to integrate evidence into an essay.

Before attempting to quote, paraphrase, or summarize a source, make sure you fully understand the text's meaning and feel confident about discussing it. If you are unclear about what the source text says, do not try to integrate its information into your essay; such confusion can damage the persuasiveness of a paper since savvy readers may detect the issue. Instead, read the text several times slowly to grasp its meaning or discuss it with your classmates and instructor before attempting to incorporate its information into an essay. Class discussions about confounding texts can oftentimes provide clarification and fruitful avenues for writing projects.

Using Quotations

When writers *quote*, they use the exact words from source texts, enclose those words in quotation marks, and cite and reference the sources to document the origin of information. Quotations can provide telling evidence in a paper if they are used sparingly and strategically. Conversely, their overuse can affect the flow of a piece of writing and give readers the impression that the writer cannot formulate his or her own thoughts about a text. Table 1 explains when to use and avoid quotations.

Table 1. Reasons to use and avoid quotations when writing

Use Quotations	Avoid Quotations
When the language of a source is the focus of your project or investigation	When the quotation repeats rather than expands on the point you are making
When a text's language is especially expressive	When you simply want to fill space
When the precise words of an authority give credence to your argument	When the quotation makes rather than supports your point
When exact wording is necessary for technical accuracy	When you cannot weave the quotation into your own text in a cohesive manner

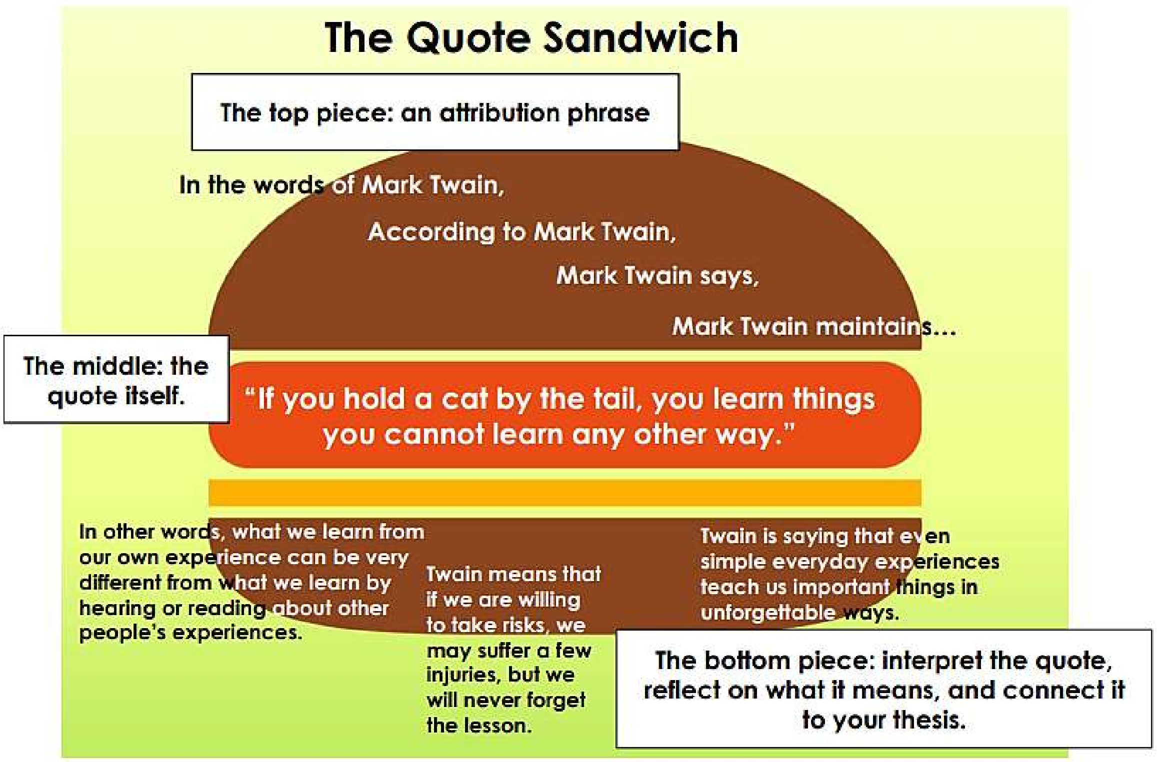
If you decide to use quotations in an essay, take care to integrate them cohesively.

Quotations cannot on their own provide compelling evidentiary support for an essay; a writer must consequently explain their presence and relevance to readers. In other words, a writer must contextualize a quotation so readers understand its use. The quotation sandwich offers a helpful method for working quotations into papers in a cohesive way. Using this technique, a writer introduces a quotation, provides the quotation, and comments on the quotation's relationship to the paper. Figure 7, adapted from McKeever (n.d.-b), demonstrates use of the quotation sandwich approach.

The quote "sandwich"

You can use many kinds of evidence to support a claim—examples, anecdotes, explanations, research results, or statistics, for example. You may also use quotes from others. However, you have to connect the quote to your claim so that it clearly supports it—you cannot just drop a quote in without adding a comment, explanation, reflection, or connection.

It may help to think of the quote as a sandwich: the quote itself is the important stuff in the middle. But it has to have a top piece—an attribution phrase introducing it—and a bottom piece—your own interpretation, explanation or connection.



The quote exists to help *you* make *your* point, so you need to clearly state what the quote means to you and how it connects to your point. The quote can never do all that by itself. The example above demonstrates shows three different ways to interpret Twain's quote and connect to related ideas:

- One interpretation connects the quote to the idea that personal experience may sometimes be better (or worse) than formal classroom learning.
- One interpretation connects the quote to the value of risk-taking in learning.
- One interpretation connects the quote to the value of everyday experience.

Figure 7. A quotation sandwich can contextualize source information for readers

The sandwiching method in shown in Figure 7 can also be used with paraphrases, summaries, visuals, and lists to interweave those elements into a document so it flows together effectively.

Using a quotation from the first page of Charles Dickens' 1859 novel *A Tale of Two Cities*—"It was the best of times, it was the worst of times"—textbook writers Last and Neveu (2019, pp. 236-237) explain that the seamless integration, signal phrase, and colon methods can also be used to integrate quotations into a text in a cohesive manner. The following list, adapted from Last and Neveu, explains and exemplifies these methods.

- **Seamless Integration:** Embed the quotation or parts of it into your sentence so that if you read the text aloud, listeners cannot distinguish the quotation from the rest of the sentence.

  Example: Charles Dickens begins his 1859 novel with the paradoxical observation that the eighteenth century was both "the best of times" and "the worst of times" (p. 1).

- **Signal Phrase:** Use a signal phrase (author + reporting verb) to introduce the quotation, clearly indicating that the quotation originates from a specific source.

  Example: Describing the eighteenth century in his 1859 novel, Charles Dickens observes, "It was the best of times, it was the worst of times" (p. 1). → Notice that a comma follows *observes* since the verb signals the beginning of a quotation.

- **Colon:** Use a colon to introduce a quotation when your own introductory words constitute an independent clause (i.e., a complete sentence); the colon emphasizes the quotation.

  Example: In his 1859 novel, Charles Dickens defines the eighteenth century as a time of paradox: "It was the best of times, it was the worst of times" (p. 1).

Any of these techniques can be used in conjunction with a quotation sandwich for maximum cohesive effect.

Although a quotation extracts the exact words from a source, a writer might need to adjust the quoted material to interleave it into his or her own text so the language flows together in a concise, grammatical manner that makes sense to readers. For example, the writer might need to alter the verb tense of the quotation so it matches the tense used in the rest of the sentence or insert a clarifying comment into the quotation to help readers understand its meaning. Both of these situations call for the use of brackets (i.e., [ ]). Ellipses, three periods in a row (…), are used to show that irrelevant words have been omitted from the middle of a quotation; four periods are used when a sentence or more is omitted from the middle of a quotation. Instead of quoting full sentences, writers oftentimes integrate short phrases or parts of sentences into their texts, using ellipses in these circumstances. If a writer omits words from the beginning or ending of a quotation, the ellipses are unnecessary.

Last and Neveu (2019, p. 238) call upon the following text from Petroski (2014) to demonstrate the use of brackets and ellipses in action. The text is a long quotation (40+ words), so it begins on a new line and is indented rather than enclosed in quotation marks. When citing a long quotation such as this, place the citation information (in this case, the page number of the quotation) outside the final mark of punctuation at the end of the quotation. These are standard conventions for incorporating long quotations into a piece of writing. The examples that accompany the text are adapted from Last and Neveu (2019, p. 238).

> Engineers are always striving for success, but failure is seldom far from their minds. In the case of Canadian engineers, this focus on potentially catastrophic flaws in a design is rooted in a failure that occurred over a century ago. In 1907 a bridge of enormous proportions collapsed while still under construction in Quebec. Planners expected that when completed, the 1,800-foot main span of the cantilever bridge would set a world record for long-span bridges of all types, many of which had come to be realized at a great price. According to one superstition, a bridge would claim one life for every million dollars spent on it. In fact, by the time the Quebec Bridge would finally be completed, in 1917, almost ninety construction workers would have been killed in the course of building the $25 million structure. (p. 175)

Reference

Petroski, H. (2014). *To forgive design: Understanding failure*. Belknap Press.

- Brackets can be used to signal a change to the verb tense in a quotation:

  Petroski (2014) recounts the story of a large bridge that was constructed at the beginning of the twentieth century in Quebec, saying that “by the time [it was done], in 1917, almost ninety construction workers [were] killed in the course of building the $25 million structure” (p. 175).

- An ellipsis can be used to signal the omission of words from a quotation:

  “Planners expected that when completed, the…bridge would set a world record for long-span bridges of all types,” according to Petroski (2014, p. 175).

- Brackets can be used to signal a clarifying insertion into a quotation:

  “Planners expected that when completed, the…cantilever bridge [built using structures that were anchored at one end and projected horizontally at the other] would set a world record for long-span bridges of all types,” explained Petroski (2014, p. 175).

Brackets and ellipses help authors cohesively incorporate quotations into their own writing.

When source material contains a misspelling or other composition blunder, signal the error’s presence to readers in a quotation by enclosing the italicized word *sic* (Latin for *thus*) in brackets and placing it right after the error. Here is an example of the notation used in a sentence.

> According to Jones’ (2019) *Best Journal* review, the book is “an important contribution to gender studies, suceeding [*sic*] where others have fallen short” (p. 2).

The notation informs the readers that the mistake appeared in the original text.

Lastly, when quoting text that already contains quotation marks, change the internal double quotation marks (“ ”) to the single variety (‘ ’) to help readers distinguish the elements. Here is an example that illustrates this use of punctuation.

> “Today, ‘the high seas’ are generally understood to refer to the vast expanses of open oceans that are not under the formal jurisdiction of any nation,” explain authors Jacquet and Jackson (2018, para. 1).

Help readers understand how you have integrated quotations into your own sentences by using the standard conventions discussed herein.

<u>Using Paraphrases</u>

Paraphrasing is another technique that can be used to integrate evidence from sources into an essay. When *paraphrasing*, a writer articulates a text’s ideas using his or her own words and sentence structures and cites and references the original source. This technique has a number of benefits, as the following list explains.

- To compose a paraphrase, a writer must have a strong command of a source. Thus, inclusion of a paraphrase in an essay demonstrates that a writer has engaged actively with the source and can discuss it in an informed way using his or her own words.
- A writer can oftentimes incorporate a paraphrase into an essay in a more straightforward way than a quotation by maintaining his or her own writing style.
- If a source uses complex technical terms, a writer can translate this wording for a general audience of essay readers by articulating the ideas in a paraphrase.

Paraphrase when a text’s ideas are more important than how a source communicates them. Also bear in mind that paraphrasing and summarizing are the norm in much academic and technical writing, while quotations are used sparingly if at all.

To be certain you are using your own words and sentence structures when paraphrasing, follow these steps.

1. Read the source text carefully to make sure you understand it.
2. Decide which short section of text (a sentence or two or a brief paragraph) you intend to paraphrase.
3. Note down key points about the text on a separate piece of paper using your own words.

4. Put the source text away so you cannot see it.
5. Write your own version of what the original text said using your notes.
6. Leave the paraphrase alone for a while, and then revisit it to see if it can be improved.
7. Check that the paraphrase expresses the overall idea of the source text in a new form.
8. Enclose any unique terms borrowed from the original source in quotation marks.
9. Provide an in-text citation and accompanying reference list entry for the original text.

The example below, adapted from Last and Neveu (2019, p. 239), follows the principles conveyed in the list while paraphrasing the final two sentences of the Petroski (2014) text presented earlier.

> At the end of its construction, the large cantilever bridge in Quebec cost $25 million, explains Petroski (2014, p. 175), but the cost in lives far exceeded the prediction of one death for each million dollars spent. While the planners hoped that the bridge would set a global record, its enduring reputation was much grimmer.

An unacceptable paraphrase is one that simply replaces source language with synonyms. To avoid this form of plagiarism, use the steps listed here to express the meaning of a source in your own words.

<u>Using Summaries</u>

Summarizing, when a writer communicates a text's central idea or theme in his or her own words while excluding details, is another technique that can be used to integrate source evidence into an essay. Although the "Reading Actively" chapter of this textbook contains detailed summary-writing guidance, Figure 8, a handout adapted from the Robert Gillespie Academic Skills Centre, University of Toronto Mississauga (n.d.), lists essential reminders for constructing a summary.

In what instances might you use summaries in essays?

The Robert Gillespie ACADEMIC SKILLS CENTRE

Six Effective Tips to Write a Summary

A summary presents the major ideas from a text while reducing its length.

When you write a summary, you may find it tempting to combine various parts of the text. However, this isn't the best strategy. To write an effective summary, you can rearrange the order of the points and remove minor details.

Use these six tips to write a summary.

Summary checklist:

- Write in full sentences
- Shorten the original text
- Use your own words and sentence structure
- Maintain the author's intent

1. **Identify the sections of the text**
   Find the text's thesis and main ideas. Breaking down the text into sections helps you to understand the author's flow and organization.
2. **Distinguish between major and minor details**
   How do the details connect back to the thesis and main ideas? Remember, a summary is a shortened version of the original text. You'll need to focus on the need-to-know information.
3. **Remove minor details and examples**
   Condense the text, but beware of misrepresenting the author's ideas. Sometimes omitting details can change the spirit of the text.
4. **Pay attention to transition words**
   Transition words can signal emphasis and guide you through the logic of the text's argument. Look out for words like "however", "therefore", and "thus".
5. **Re-order the ideas as needed**
   You don't have to maintain the exact same order as the author. Re-organize your points so that your summary is logical.
6. **Reserve your opinions**
   Your analysis of the text is important, but it does not belong in a summary. Remember, a summary is a condensed form of the author's ideas and intent. Save your opinions of the text for a discussion.

Figure 8. Steps for composing a summary

The following example, adapted from Last and Neveu (2019, p. 239), follows the principles discussed herein when summarizing the Petroski (2014) text.

> According to Petroski (2014, p. 175), a large bridge built in Quebec during the early part of the twentieth century claimed the lives of dozens of workers during its construction. The collapse of the bridge early in its construction represented a pivotal design failure for Canadian engineers that shaped the profession.

As the sample illustrates, a summary condenses an extended text down to its essential meaning, providing readers with an overview; a summary also supplies readers with a citation and reference for the source text.

Synthesizing Ideas for an Essay

Although this chapter has discussed quoting, paraphrasing, and summarizing as means to integrate source information into essays, before you can use these techniques to their fullest potential, you must think carefully about the points your essay sources make, how they concur or disagree with one another, and how they connect to and extend your own ideas about an essay topic. Collectively, these activities facilitate *synthesis*, or connecting with sources by responding to their ideas and research in a piece of writing in order to contribute your own unique insights to the area of focus. Many composition scholars liken synthesis to engaging in conversation with sources since it involves establishing how sources relate to one another and to your own thoughts about a subject.

<u>Using Summary to Synthesize</u>

To demonstrate synthesis in action, we will explore a scenario adapted from Excelsior Online Writing Lab (2020f). Imagine you are researching a topic. You will likely encounter a variety of sources about the subject that contain different information and points of view, and you will need to compare and evaluate this information to draw your own conclusions—a process that leads to the synthesis of new ideas. It may help, at this point, to compare synthesizing to analyzing. Whereas analysis breaks something into parts to examine how they work together, synthesis combines ideas to form new ones. Regardless, synthesizing is not the same as summarizing; summary involves concisely stating someone else's ideas, while synthesis is a critical and creative process in which you compare or combine the ideas you have read to form new ones. Although synthesis can involve summarizing ideas from other texts in order to compare them and draw a conclusion, the result is a new idea.

To continue the scenario, we will read two passages that express different points of view about bike lanes: first, we will summarize the authors' main ideas, and then we will compare them and draw a conclusion. The author of this first passage is in favor of bike lanes.

> Bike lanes are an essential feature of modern, urban life. Indeed, many urban residents have traded their cars for bicycles. Bicycling offers many advantages to driving: bicycles do not get stuck in traffic, run out of gas, break down often (and even when they do, repairs are inexpensive), need insurance, produce pollution, or receive parking tickets. They also offer an excellent way to add exercise to a busy schedule. Many cities across the nation have encouraged bicycling to cut down on traffic, accidents, and pollution and have added bike lanes to downtown areas to provide safe and speedy thruways for bicyclists, producing a net positive result for all parties.

We can summarize this argument by pulling out some keywords: bike lanes, advantages, urban, traffic, accidents, pollution, inexpensive, safe, and exercise. Putting this information together, we can summarize the author's argument as follows.

> Placing bike lanes in urban areas is beneficial because bicycling reduces traffic, accidents, and pollution and offers an inexpensive, safe, and healthy way to travel.

The author of the second passage opposes bike lanes, as this text reveals.

> Bike lanes remove valuable space from already crowded inner-city streets. Urban areas already suffer from traffic and pedestrian congestion, and such overcrowding is worsened by the introduction of legions of reckless bicyclists. Many bicyclists also ignore street signs, causing additional accidents with cars and people. Furthermore, parked bicycles clutter congested sidewalks, making many areas impassable. These problems far outweigh the benefits of bicycling. People who do not want to drive can hop on a bus or subway and gain most of the benefits of bicycling without taking up precious space on the roads.

We can use several keywords to summarize this argument: bike lanes, urban, space, crowding, accidents, congested sidewalks, problems, buses, and subways. Combining this information leads to the following summary.

> Placing bike lanes in urban areas is problematic because bicycles take up valuable space, create additional crowding, cause accidents, and congest sidewalks. Bike lanes can also be replaced with better alternatives, such as buses and subways.

Having summarized the passages, we can practice synthesizing by combining the two summaries and drawing a conclusion.

- In the first passage, the author argues that placing bike lanes in urban areas is beneficial because bicycling reduces traffic, accidents, and pollution and offers an inexpensive, safe, and healthy way to travel.
- Conversely, in passage two, the author contends that placing bike lanes in urban areas is problematic because bicycles take up valuable space, create additional crowding, cause accidents, and congest sidewalks. Bike lanes can also be replaced with better alternatives, such as buses and subways.
    - **Synthesis:** These opposing viewpoints demonstrate that while bike lanes encourage a healthy, safe, and low-cost way to travel in cities, they also cause problems that need to be addressed through better urban planning.

The synthesis statement fuses the two passages by combining and comparing the two summaries and then drawing a conclusion that raises a new idea about the need for better urban planning to support bicycling.

Using a Matrix Tool to Synthesize

When exploring the connections among various sources for an essay, you might also decide to use a matrix tool to create a visual representation of source relationships. When using this type of tool, a writer groups common themes, arguments, or points raised in sources in tabular fashion to facilitate synthesis. Table 2 is an example of a synthesis matrix.

Table 2. A matrix tool to facilitate synthesis

<table>
<tr><td rowspan="3">Theme, Argument, or Point 1:</td><td>Source 1:</td><td rowspan="3">My Thoughts:</td></tr>
<tr><td>Source 2:</td></tr>
<tr><td>Source 3:</td></tr>
<tr><td rowspan="3">Theme, Argument, or Point 2:</td><td>Source 1:</td><td rowspan="3">My Thoughts:</td></tr>
<tr><td>Source 2:</td></tr>
<tr><td>Source 3:</td></tr>
<tr><td rowspan="3">Theme, Argument, or Point 3:</td><td>Source 1:</td><td rowspan="3">My Thoughts:</td></tr>
<tr><td>Source 2:</td></tr>
<tr><td>Source 3:</td></tr>
</table>

When using a matrix tool, it is vital to consider your own thoughts regarding groupings in order to encourage synthesis, as the right column of the figure indicates.

Signaling Synthesis in an Essay

When synthesizing ideas in an essay, you can help readers understand how they connect by using sentence structures that signal relationships. Bruce and Gagich (2018, p. 93-94) explain that these sentence structures oftentimes point to a writer's agreement or disagreement with sources, although you can also use them to discuss patterns of thinking, errors in logic, omission of points, or other matters that add to the research conversation. The textbook authors provide examples of sentence structure templates (adapted below) that can be used to establish synthesis.

- Synthesis that indicates agreement/support:
    - Source A asserts…Source B agrees when stating…
    - According to sources A and B…
    - The combined conclusions of sources A and B seem to indicate that…
    - The evidence shows that…
    - Source A is correct that…However, source B's point that…is also valid.
    - Source A makes a convincing case when she argues…
    - I agree with source A's conclusion that…
- Synthesis that indicates disagreement/conflict:
    - Source A asserts that…, while source B offers a different perspective by…
    - Sources A and B disagree regarding…
    - Contrary to what source A has argued, my view is that…
    - I argue that X is the best option even though source B proposes a different solution.
    - I would like to offer several objections to the opinions expressed by source A…
    - While source B makes a strong argument, I would disagree with…because…
    - Instead of focusing on…as source A does, source B emphasizes…
- Synthesis that adds to the conversation in other ways:
    - While most of the experts on X see…as the primary cause of…, only source A acknowledges that there may be other…causes.
    - When I began researching topic X, I expected to find…To my surprise, neither source A, B, nor C address this reason, which leads me to believe that…
    - Because source A is an expert in the field of X, most others writing about X accede to A's authority, but a closer examination of A reveals an important omission about X.

These templates demonstrate how you can weave together source information with your own thoughts to create new ideas about a topic.

Although synthesis is critical to developing an effective essay, you will also regularly call upon the skill when producing other types of writing assignments as well.

Formatting an Essay

As with any other type of document you write, design an essay with the principle of consistency in mind so that readers can concentrate on its content rather than on formatting variations. When producing an essay, use double spacing throughout, one-inch margins, and indentation to signal the beginnings of new paragraphs, unless you are told otherwise. This list, adapted from Lambert (2019, paras. 4-8), indicates other ways to stay consistent with design.

- Make sure your font and type size is the same throughout the entire paper. If you opt to use different fonts or type sizes for headings and body text, employ this design decision consistently.
- Use the same style bullet points throughout lists in the paper. Remember that numbers and letters indicate rank or sequence, whereas bullets do not.
- Design lists in a consistent manner. In general, capitalize the first letter of the first word in a list, and use punctuation at the end of full-sentence list items.
- Format all same-level headings the same way, using uniform design choices (bold or italic lettering), standardized positioning (center or left alignment), and a consistent pattern of capitalization.
- Apply the design principle of repetition when implementing color. If you decide to employ color in visuals, aim to use the same or a similar color in more than one visual.

Keep in mind that certain formatting conventions (e.g., heading design and placement) are associated with documentation styles. The "Reporting Research Outcomes" chapter of this textbook provides specific guidance on formatting documents using APA (American Psychological Association) style.

Developing an Essay Title

An essay's title offers insight into the accompanying text's direction, purpose, and content, so devise a precise title that is particular to the paper you are developing and is clearly written with an envisioned audience in mind. Implementing this piece of advice may mean fully drafting the essay before composing its title.

To elaborate on the previous paragraph while adapting advice provided by the Sweetland Center for Writing, University of Michigan (2020b, paras. 5, 11-16), readers typically find titles like "Essay One," "Society and its Many Problems," "A Picture is Worth a Thousand Words," and "Technical Writing Assignment Two" unhelpful. These types of titles are simply too general to provide any needed context. To avoid such titles, think carefully about the essay's thesis, research, and implications, and identify keywords that succinctly encapsulate these. Imagine, for instance, that you are writing an essay about animal behavior. You have a particular species to study, conduct relevant research, and have conclusions to offer. Here is your first attempt at an essay title: "Monkey Behavior." This title says nothing about the kind of monkey or its distinctive behavior and does little to attract or inform the reader. Your second attempt is a little better: "The Effects of Sugar on Monkey Behavior." This title is clearer and somewhat amusing. Regardless, it still does not offer many specifics or include key terms from the paper. Readers can already conjecture that sugar would have some effect on monkey behavior, so the title needs to be markedly more precise. Here is a revised version: "Sugar Stimulates Intensity of Tail-Twitch Social Behavior in Panamanian Monkeys." This title contains specific terms, includes a clear location, and provides an explicit claim—information the reader can use to immediately identify the paper's focus.

Developing Essay Headings

Create specific and informative headings for essay sections since headings signal a paper's organization and scope and help readers follow the text's development. So, rather than using the vague *Body* as a heading, divide the body section of the paper into segments organized by the main points covered in paragraphs, which should all relate back to the paper's thesis statement, and give the sections explanatory headings. By reading an essay's explanatory headings, the reader should be able to discern the general progression of the piece and what the essay sections cover.

Revising an Essay

Like any quality piece of extended writing, an essay requires time and effort to prepare, and revision is a key step in the composition process. Revision is most effectively completed in stages: a writer begins the process by looking for big-picture issues that might affect an essay's coherent construction, then considers mid-level issues that can impact paragraph development, and finishes by checking for sentence-level errors that can influence reader understanding. The following list provides guiding questions that can be used during each stage of revision.

- **Stage 1: Revising Big-Picture Items** (adapted from Excelsior Online Writing Lab, 2020a)
    - Do you have a clear thesis? Do you know what idea or perspective you want the audience to understand upon reading your essay?
    - Is your essay well organized?
    - Is each paragraph a building block in your essay: does it explain or support your thesis?
    - Does the essay need a different shape? Do parts need to be moved?
    - Do you fully explain and illustrate the main ideas of your paper?
    - Does your introduction grab the reader's interest?
    - Does your conclusion leave the reader with an understanding of your point of view?
    - What is your paper's strength? What is its weakness?

- **Stage 2: Revising Paragraphs** (adapted from Excelsior Online Writing Lab, 2020b)
    - Does each paragraph contain solid and specific information, vivid description, or examples that illustrate the point you are making?
    - Can you add other facts, quotations, paraphrases, examples, or descriptions to more clearly illustrate or provide evidence for the points you are making?
    - Can you delete any sentences, words, descriptions, or information because they may confuse or tire the reader?
    - Are your paragraphs in the right order?
    - Does each paragraph explore one main idea?
    - Do you use clear transitions so the reader can follow your thinking?
    - Do any of your paragraphs contain redundancies that can be deleted?
- **Stage 3: Revising Sentences** (adapted from Excelsior Online Writing Lab, 2020c)
    - Have you been consistent in your use of tense?
    - Do your pronouns agree with their antecedents (referents)?
    - Have you accurately and effectively used punctuation?
    - Do you rely on strong verbs and nouns to enhance descriptions and build clear sentences?
    - Are your words as accurate as possible?
    - Do you define any technical or unusual terms that readers may not know?
    - Can you delete any extra words from your sentences?
    - Have you avoided clichés and slang?
    - Do you vary your sentence structures?
    - Have you accurately presented facts?
    - If you are writing an academic essay, have you tried to be objective in your evidence and tone?
    - If you are writing a personal essay, have you used a lively narrative voice?
    - Have you spellchecked your paper?
    - Have you ethically incorporated source material by effectively quoting, paraphrasing, or summarizing it?
    - Have you consistently cited and referenced source information using a standard documentation style?

Although a draft paper represents an important milestone in a writing project, a draft typically needs considerable revision and refinement before it is ready for submission. Figure 9, an essay extract reproduced courtesy of Excelsior Online Writing Lab (2020d, "Rough Draft Example"), illustrates this point.

Need a Title — something about fast fashion

The cost of clothing is a concern for most american families. In an article for *Newsweek*'s parenting column, Springen (2008) offered this advice to parents tackling back-to-school shopping: "Steer your kids towards affordable stores like Old Navy and H&M, but don't force them to buy knockoffs. These days even preschoolers can spot a pair of fake Ugg boots . . . and may taunt classmates about them." (need citation) This advice appears sound and sincere. However, such common wisdom hides the uncomfortable reality that most westerners are more concerned with getting a bargain than with the darker side of mass-consumer fashion. Attachment to cheap, disposable clothing, commonly known as fast fashion, is supporting a corrupt labor system, unsustainable production practices, and a culture of mindless consumerism. ~~In order to stop a system that is bad for people and bad for the environment, American consumers needs to shop more responsibly.~~ While the issue is complex, western consumers can contribute to a culture of change by revisiting some of their preconceived notions about frugality.

need to check on spacing requirements after the period

can I provide some context here?

can I make this claim? I think so!

I like this part!

had to cut

Is this too much of a qualifier?

With frequent stories in the news about factory accidents, the average consumer is at least somewhat aware of the conditions most clothes are made under. According to Dishman of *Forbes*, "Fashionistas often have a love/hate relationship with [mass-market] retailers like H&M because they equate the inexpensive price tag to the company's ability to manufacture its merchandise in sweatshops filled with underpaid workers" (para. 8). Yet this ambivalence does not translate into action because shoppers are used to getting what they want fast and cheap. In his essay "The Branding of Ethical Fashion and the Consumer," author and industry expert Nathaniel Beard (2008) described the "polarization" between the growing sense of moral obligation in fashion and the

need more context here as well

Need to add a sentence or two here!

better!

Figure 9. The revising process at work in an essay extract

Think of revising as a recursive activity, meaning that you may proceed through the previously listed revision stages multiple times during an essay's development.

In addition to revising a paper in stages using the prompt questions listed, you may also have the opportunity to revise an essay based on peer feedback. Peer review sessions offer valuable chances to find out what others think of your writing and what suggestions they can contribute to help you during revision; the sessions also give you the chance to supply constructive feedback on your classmates' writing—a vital skill you will need in the workplace. When supplying constructive criticism, identify **what** needs to be changed in a paper, **why** it needs to be changed, and **how** it can be changed. Alternatively, highlight **what** works well in a paper, **why** this is the case, and **how** the positive aspect affects you, the reader. Figure 10, a multipage handout produced by the Writing and Communication Centre, University of Waterloo (n.d.-b), offers further peer review advice and a feedback template that can be used during peer review sessions to help ensure they are maximally productive.

Have you ever participated in a peer revision session before? What did you think of it? What do you think of the peer review advice presented in the handout?

PEER REVIEW: THEORY AND PRACTICE

Peer review is one of a number of revision and proofreading strategies available to you. While there are many ways to structure peer review sessions, at its core, this technique involves soliciting **feedback** on one or more aspects of your writing from classmates or colleagues.

Peer Review: Purpose and Scope

Purpose

Interact **Models** **Concrete Advice** **Think & Learn**

While peer review has the obvious benefit of getting feedback on your writing, it also has benefits for the person doing the reviewing:

- We become better writers by being diligent peer reviewers
- We learn good writing habits by writing often and by reading the writing of others
- Giving feedback requires us to think carefully – not only about what we think about someone's writing, but also about how writing is constructed and why we are making specific suggestions.

Scope

It is up to individual peer review groups to determine what aspects of writing a given session (or series of sessions) will look at. Broadly speaking, the following aspects of writing are the ones that you could potentially focus on:

- **Content**: arguments, analysis, logic, evidence
- **Structure:** organization, transitions, connections
- **Style**: tone, word choice, formality
- **Mechanics:** punctuation, sentence structure, spelling

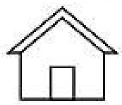
Avoid the urge to focus initially or primarily on mechanics. The revision and proofreading process will be more effective when you focus on **higher-order concerns** (content and structure) first and **lower-order concerns** (style and mechanics) second. See our handouts on **revision** and **proofreading** for more strategies that you can use.

Done correctly, the peer review process is a social, productive, and engaging way of participating in your discipline's community of practice. However, though some instructors or supervisors will encourage their students to work together in a peer review process, others may require that projects be completed independently. In order to avoid any issues around **academic integrity**, make sure to consult with your instructor or supervisor before engaging in peer review.

Peer Review: Spaces

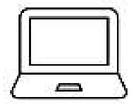
There are lots of spaces available for conducting peer review, including the following:

Face-to-face



- Classroom
- Coffee shop
- Someone's home

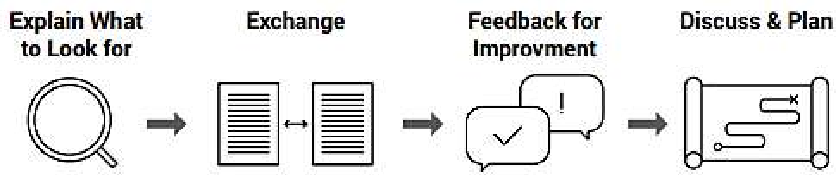
Online



- Skype
- Google Hangouts
- Google Docs
- Portal

Peer Review: Practice

Steps in Peer Review



1. **Write notes** for your reviewer on the peer review sheet and exchange papers. If you are not using a peer review sheet, discuss the specific questions or concerns that you'd like your reviewer to pay attention to.
2. **Read actively and critically**. Make notes in the margins of the paper or in the track changes feature if using Word. If using a review sheet, make general notes there, too.
3. Return the paper (and the review sheet, if you used one) to the original writer; **discuss the feedback** and **create an action plan** for revision and proofreading.

Sample Peer Review Worksheet

Feel free to adapt the template of a peer review worksheet on the following pages to suit your needs:

PEER REVIEW MARKING SHEET

Name of Writer: ______________________________

Name of Reviewer: ______________________________

Notes from the writer to the reviewer:

____

____

____

____

____

Aspect of Writing Being Reviewed: Content / Structure / Style / Mechanics

	Component	Needs Significant Work	Needs Some Work	Needs Little/No Work
Criteria 1 *(e.g., Clear thesis statement)*				
Criteria 2 *(e.g., Specific topic sentences)*				
Criteria 3 *(e.g., Use of transition words or phrases)*				

Additional comments on writing:

____

____

____

____

____

Post-Review Discussion

Action Plan: How will you (the writer) incorporate the suggestions of your reviewer into your edits? What steps will you take during the editing process? Be specific:

1.

2.

3.

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Figure 10. Peer review guidance and a feedback template

Notice that the final procedure on the handout asks you to specify how you will use peer comments to revise your paper, a crucial step when working with feedback.

Drawing the Chapter to a Close

Take the advice in this chapter into account when preparing an essay to persuasively communicate with readers.

Activity A: Producing a Reverse Outline and Answering Questions about an Essay

This chapter discusses revising in stages and peer reviewing as means to facilitate the revision process. A reverse outline offers another technique that can be used to revise an essay, as the following handout, adapted from Student Academic Success Services, Queen's University (2018c), describes.

The Reverse Outline

Many writers find it helpful to review a rough draft in terms of the bigger picture, before they edit it at the sentence level. At this stage of writing, it is important to determine if your paper:

- has **clearly articulated main points** with supporting **evidence,**
- discusses the **relationships** among those points
- and shows the **organized progression of a well-supported argument**.

A reverse outline is an efficient way for writers to assess their writing for these critical elements.

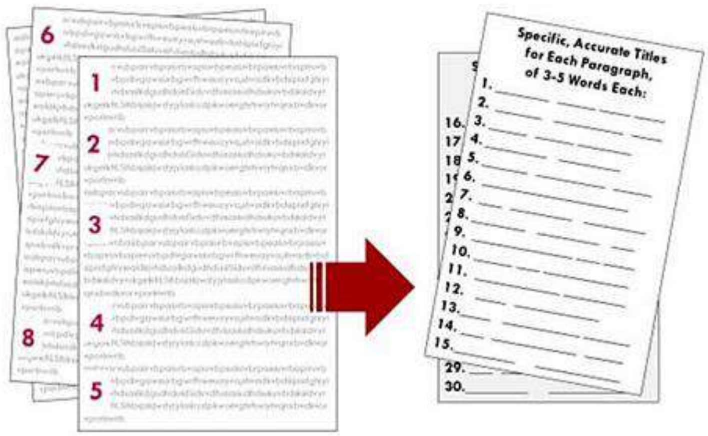
Some writers like to create an outline they draft a paper; a **reverse outline** is something writers create *after* they write a draft. A reverse outline can help you make sense of what you've done, especially with a paper that needs its paragraphs reordered, or has paragraphs packed too tightly with too many ideas.

How to do it?

- Go through the draft and number each body paragraph.
- On a separate page, record the number of each paragraph and its main point(s) in just a few words. Having trouble identifying the main point of a paragraph? It's probably one of two problems:
    - You may have more than one idea packed into that paragraph. See if you can identify multiple competing ideas in it; at some point soon you will need to give each its own paragraph, or perhaps delete the "extra" ideas if they aren't needed.
    - You may have a paragraph that lacks substantial points. See if the paragraph is moving toward a main point but hasn't yet articulated one yet; perhaps you can articulate it now. Alternatively, you might cut that paragraph entirely or move some of its more valuable content to another paragraph that includes a closely related idea.
- Go through the entire paper this way. When you have finished, you will have an outline providing you with an overview of your paper.

Then what?

Look carefully at your outline, asking yourself the following questions:



- Does each paragraph have just one main idea?
- Do all of your main ideas create a coherent story in the order in which they appear?
- Is there repetition of ideas?
- Are there gaps in your argument?
- When you look at the outline as a whole, does the organization reflect what you promised in your intro/thesis? If not, revise either your thesis or your paragraph order.

Adapted and expanded from *Craft Of Research* by Booth, Colomb & Williams

Practice using the reverse outline technique with the sample proposal essay provided on upcoming pages (adapted from Hanna, 2020, as cited in Excelsior Online Writing Lab, 2020e, "Sample Essay"). The essay argues for streamlining the recycling infrastructure on a college campus to encourage recycling.

After reading the proposal essay, also answer the following questions about it. Be prepared to share your answers in class.

1. In what way does the author create a narrowly defined focus for the essay?

2. Does the author provide sufficient coverage of her topic in the paper? How?

3. Identify the introduction, body, and conclusion sections of the essay. Are they logically structured and easy to follow? What makes them so?

4. A proposal aims to persuade readers. What does the author do to try to persuade you in her essay?

5. What do you think about the evidence the writer uses? For instance, is it accurate, trustworthy, relevant, sufficient, and timely?

6. How does the writer incorporate source evidence into the essay? Could her technique be improved in any way? If so, how?

7. Where do you detect synthesis in the essay?

8. What do you think of the essay's formatting? Could it be improved in some way?

9. Do you think the writer has put sufficient effort into revision? What makes you think so?

10. Imagine you are giving constructive criticism to the author during a peer review session. Identify one thing that needs to be changed in the paper, why it needs to be changed, and how it can be changed. In addition, name one thing that works well in the paper, why this is the case, and how the positive aspect affects you, the reader.

Rethinking Recycling: Why Reusing Needs to Be User Friendly

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English 101: English Composition

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March 13, 2020

Rethinking Recycling: Why Reusing Needs to Be User Friendly

Many people cling to the belief that recycling is unnecessary, and even among those who believe in reducing waste, some find recycling to be inconvenient. Facilities do not always exist to handle certain materials (such as packaging and batteries), and some towns require residents to follow elaborate sorting processes or transport their recycling to central locations, all of which can seem like extra tasks in a busy world. But recycling is becoming increasingly important. According to Zellar (2008), in an article for *National Geographic* entitled “Recycling: The Big Picture,”

> Every shrink-wrapped toy or tool or medical device we buy bears the stamp of its energy-intensive history….A product’s true cost includes greenhouse gases emitted in its creation as well as use, and pollutants that cause acid rain, smog, and fouled waterways. (para. 4)

Recycling is therefore necessary because of the amount of resources and energy required to produce new items from scratch. Furthermore, landfills have become too large to accommodate in some areas, and they emit unwanted gases that damage the environment (Kaufman, 2009). Because of the repercussions of wastefulness, recycling is essential, and it should be universally available and streamlined for maximum benefits.

At Oregon State University, the administration, faculty, and students are used to seeing and using recycling containers to pitch water bottles, surplus paper from printers, and cardboard (Oregon State University, 2014). However, the administration does not systematically implement the recycling services on campus, creating misunderstanding about what can be recycled and where. The types of bins and services available vary by building and department, making it hard for those who live, work, and study on campus to make the most efficient recycling choices. For example, the residence halls have commingled recycling that accommodates some plastic, metal, cartons, and paper, whereas the library has different bins for paper or bottles and cans only. This difference means that, in some campus locations, most waste continues to be sent to landfills. In addition, many of the vendors and departments on campus continue to use products—such as waxed paper cups, coffee-cup lids, and plastic utensils—that cannot be recycled on campus. To solve these problems, Oregon State University should implement a reorganized system that includes matching bins across campus to accommodate a wider range of items and the systematic replacement of everyday items that cannot be recycled with ecofriendly or recyclable options.

Streamlined bins will allow staff, students, and faculty to learn about one recycling system and to use it regularly. If the recycling system in the library matches the system in the Memorial Union, those on campus will be less likely to toss things into the trash because they are not sure if it is recyclable. The University of Maryland (2010) had success with such measures on its campus. The school's website states that one of the university's goals was to make steps toward a "zero waste" initiative. Specifically, "These improvements [included] installing more recycling and compost collection bins, implementing education and outreach activities, and eliminating the distribution of condiment packets and instead creating condiment stations near food courts" (University of Maryland, 2010, para. 2). The university also made trash bins harder to access and equipped faculty members' desks with tiny bins they had to take to a central location for emptying. Such initiatives combined with a sleek, well-run recycling system increased recycling participation on campus.

New—and more—bins will require Oregon State to invest in additional recycling education for members of the campus community. That is, students, faculty, and staff will need to be taught what can go in each bin and why these measures are so important. Things tend to go awry if new systems are not accompanied by clear instructions. According to Kaufman (2009), such a mishap occurred in

Santa Monica, California, when residents mistook compostable cutlery for plastic and put them into the recycling bins. She wrote,

> Josephine Miller, an environmental official for the city of Santa Monica, Calif., which bans the use of polystyrene foam containers, said that some citizens had unwittingly put the plant-based alternatives into cans for recycling, where they had melted and had gummed up the works. (para. 26)

Such problems can be avoided, Kaufman (2009) added, when education is part of the initiative.

The new system and education initiatives should be combined with a movement away from products that are the hardest to dispose of to limit waste and offset some of the initial costs of the recycling program. In the University of Maryland case, the school began using compostable takeout containers that cost a bit more than the old products (University of Maryland, 2010); however, it combined the implementation of these new products with an emphasis on using reusable plates, cups, and silverware. As a result, the food services produced less waste, needed fewer takeout containers, and spent less money. Zellar (2008) confirmed that one of the best ways to lessen the amount of waste being produced is to move away from heavily packaged items that contain unrecyclable elements.

Critics of recycling initiatives often cite wasted energy during collection, high costs, and poor user-friendliness as reasons the programs fail. Some of the opponents Zellar (2008) mentioned felt the environmental impact of collecting recyclable waste offset the benefits of recycling. However, Zellar demonstrated that creating new products actually requires significantly more energy than running an efficient and frequently used recycling system. If members of the Oregon State University community are encouraged to use a simplified (but still comprehensive) system, the environmental impact would be much smaller. Similarly, the costs of such a program can be mitigated by using fewer disposable items and by decreasing the need to haul trash to landfills. Zellar also noted “some municipalities…are starting to demand that businesses help cover the costs of recycling” (para. 14), particularly materials that are expensive or difficult to recycle. This approach has the benefit of lowering recycling costs for consumers, along with the bonus of discouraging companies from creating and distributing products that harm the environment. Oregon State could ask the city of Corvallis to consider such a measure.

According to sources cited by Kaufman (2009), large institutions have the most potential for affecting change in how waste and recycling are handled because they produce more waste and, thus, have the ability to alter demand for certain products and services. Regardless, the environmental officials she spoke with cautioned that customers “have to be taught to think about the destination of every throwaway if the zero-waste philosophy is to prevail” (para. 27). As home base to thousands of employees and students, Oregon State University has the privilege of being an institution that can make a positive impact through education about and implementation of a comprehensive, user-friendly recycling system. Improved recycling efforts can indeed be the catalyst for dramatic change on campus.

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Activity B: Reading and Answering Questions about an Essay Focused on Source Credibility

Read Warrington et al.'s (2020) essay entitled "Assessing Source Credibility for Crafting a Well-Informed Argument" located at https://wac.colostate.edu/docs/books/writingspaces3/warrington.pdf. To reflect on the essay and its relevance to your own academic work, answer the five questions starting on page 202 of the text. Be prepared to talk about your answers in class.

Activity C: Applying the Ideas Discussed in the Essay to a Text

Working with a group of classmates, apply the credibility questions Warrington et al. discuss in their essay to the journal article "Fish Tales: Combatting Fake Science in Popular Media" (Thaler & Shiffman, 2015), which is available at https://www.sciencedirect.com/science/article/pii/S0964569115000903. Afterwards, share your group's determination about the article's credibility with the whole class during a brief informal presentation. This activity is adapted from Warrington et al. (2020, p. 203).

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Writing Critical Reviews

Dawn Atkinson

Chapter Overview

This chapter aims to help you build strong arguments in your own work by learning to write critical reviews, or *critiques*, of texts. A critical review requires a close examination of the argument presented in a text (analysis) and a subsequent explanation of how effective the argument is (evaluation). Critiques are assigned in both academic and technical writing classes because they encourage critical reading practices; in other words, this type of assignment calls for a sharp eye to discern what a piece says and how it communicates in order to arrive at a reasoned judgement about its argument. Ultimately, a critical review may discuss both the strengths and weaknesses of a document.

How might the skills used to develop a critical review be applicable in a workplace setting?

Understand Expectations before Starting a Critical Review Assignment

As with any assignment, make sure you understand the expectations for a critical review before beginning work on it. Pay attention to specifications regarding the paper's audience, purpose, genre, and design; in addition, determine how many and what type of sources are required. You may be asked to restrict your evidentiary source list to the document under review rather than search for additional sources. Read the critical review directions carefully, and approach your instructor if you have unresolved questions.

Read a Text Closely to Prepare for a Critical Review

A critical review requires close engagement with a text: you cannot effectively analyze and evaluate a document if you have not read and attempted to comprehend it. To develop a broad understanding of a text's focus and composition, begin by previewing the document. While other chapters of this textbook discuss previewing in detail, Figure 1, adapted from Excelsior Online Writing Lab (2020c), offers a reminder of how to undertake this activity.

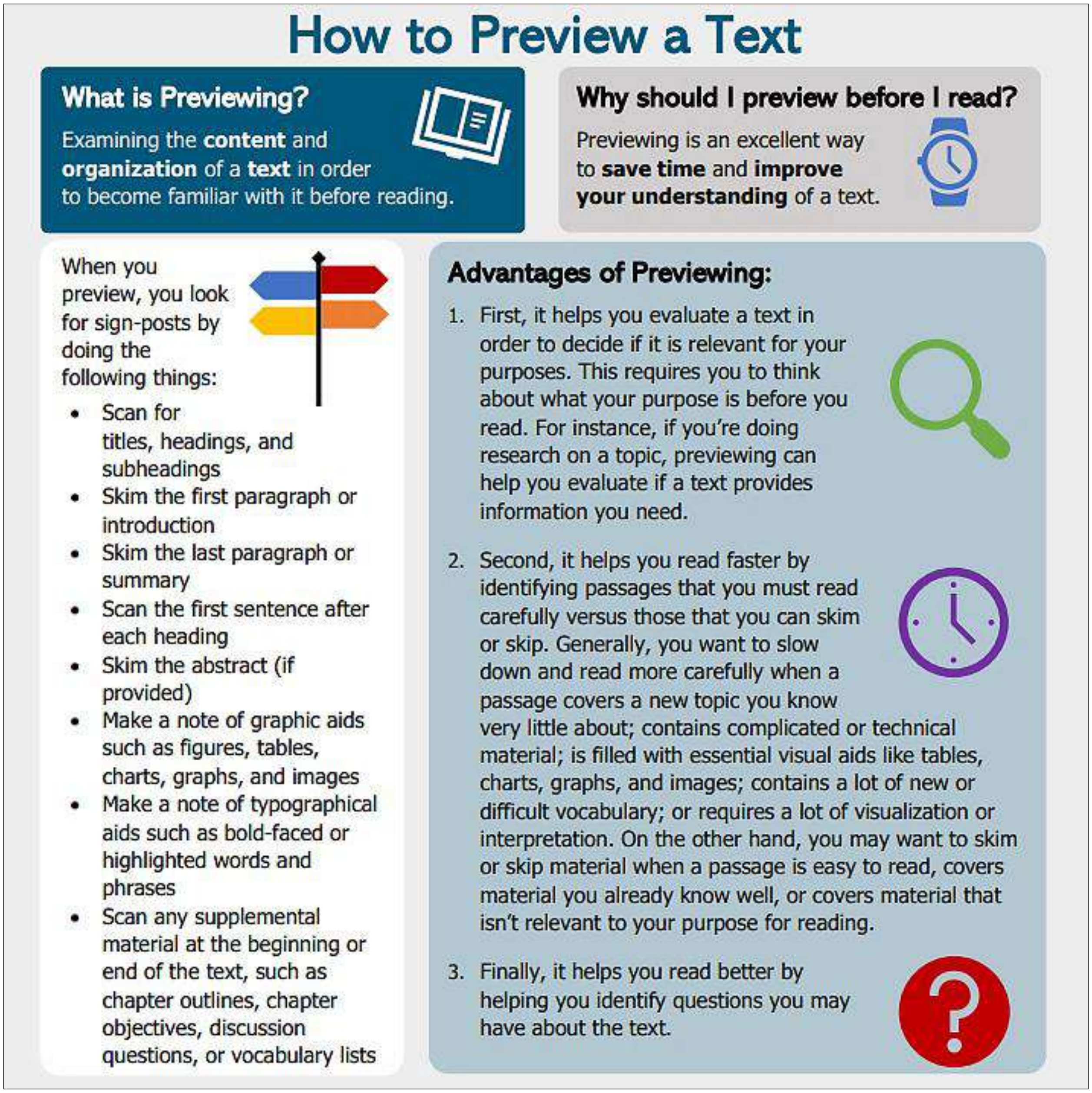


Figure 1. How to preview a text before reading it in full

Previewing should give you an overall sense of what the text is about, how it is organized, and what information it contains.

After previewing the piece, it is time to read it though, while keeping the assignment purpose in mind. Because a critical review demands close work with a text, be prepared to annotate as you read by reflecting on the document's content and meaning, recording comments and questions in the margin, highlighting important examples and evidence, underlining and defining new vocabulary, and making notes about your reactions to the text. These activities can facilitate understanding of and connection with a piece, aspects crucial to writing a successful critical review.

Your active engagement with the text should continue even after you have read it in full. To illustrate, you can use the prompts in Figure 2, adapted from Excelsior Online Writing Lab (2020a), to investigate the author's intent for writing the document.

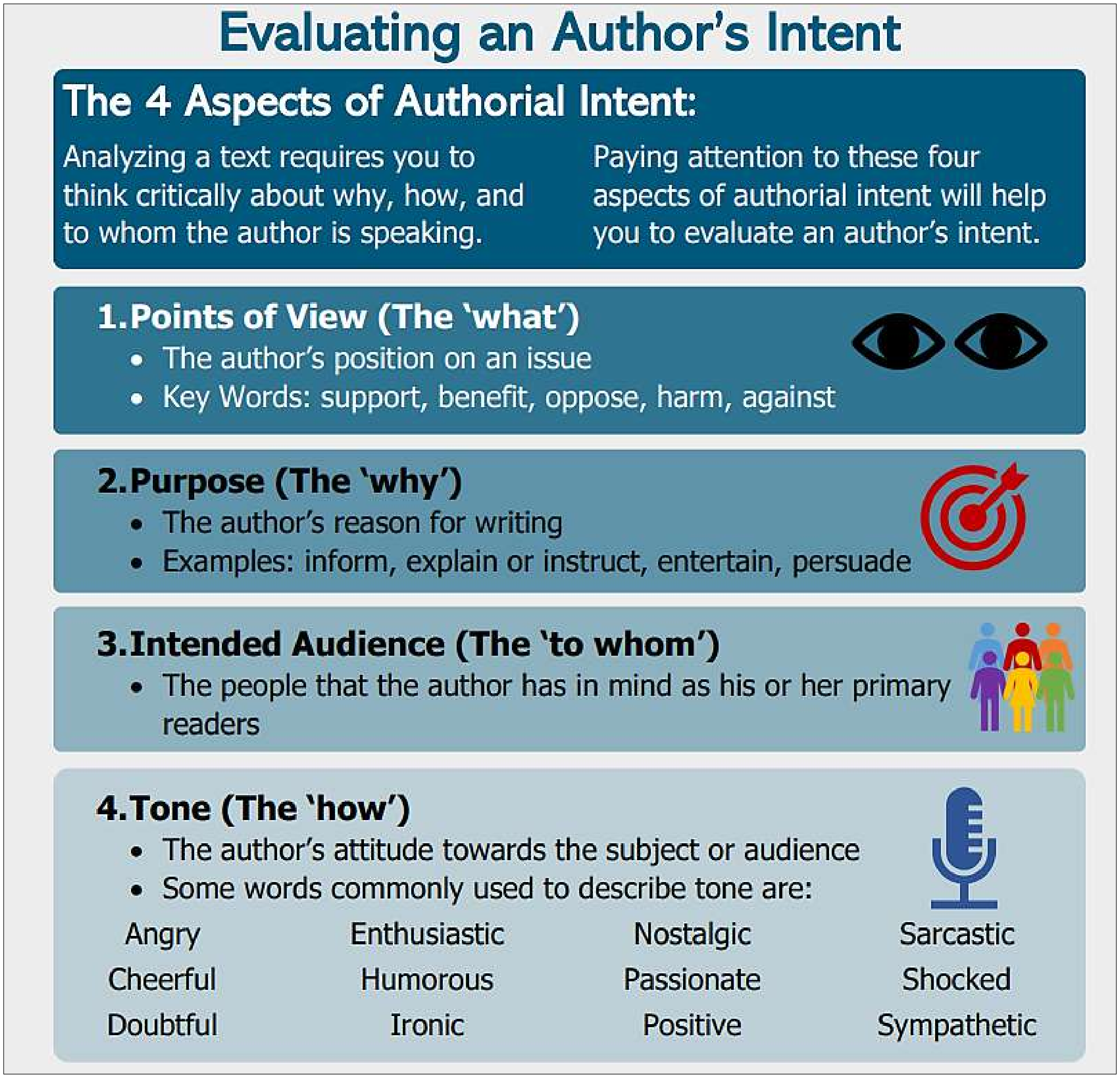


Figure 2. Prompts for evaluating an author's intent

In addition to evaluating an author's intent, think carefully about your own reactions to the text as a means to interrogate it further. The following questions, adapted from Excelsior Online

Writing Lab (2020d) and Student Academic Success Services at Queen's University (2018, "Strengths/Weaknesses"), may help in this regard.

- What, if anything, about the reading is unclear? Why is it unclear?
- Does the text deliver on the promises it made in its title and introduction?
- Do you find the author's writing style persuasive? Why or why not?
- Are the author's arguments logical? Do they make sense?
- Are points illustrated with relevant and comprehensible examples?
- What kind of evidence does the author provide to support claims? Given the purpose of the piece and its audience, is the evidence from suitable sources?
- Is the evidence relevant? Is it sufficient? Is it credible?
- Does the author supply stated or unstated reasons to support claims?
- Does the author consider alternative points of view, reasons, and evidence?
- How does the reading compare with other texts on the same topic?
- What ideas do you find most thought-provoking?
- What points do you want to investigate further?

The activities described here are intended to promote active engagement with a reading for purposes of eliciting a critical response to it.

Take Advantage of Opportunities to Discuss the Text

Discussions can sometimes inspire thoughtful reflection about a text and clarify lingering uncertainties, so seize opportunities to discuss the document with your classmates. If your instructor schedules a seminar or class discussion period to focus on the text, aim to get as much out of it as you can by preparing in advance, by contributing during the activity, and by reflecting on the experience afterward. Figure 3, adapted from McLaughlin Library, University of Guelph (n.d.), shares tips for participating in class discussions.

Can you think of any other advice you would add to the visual?

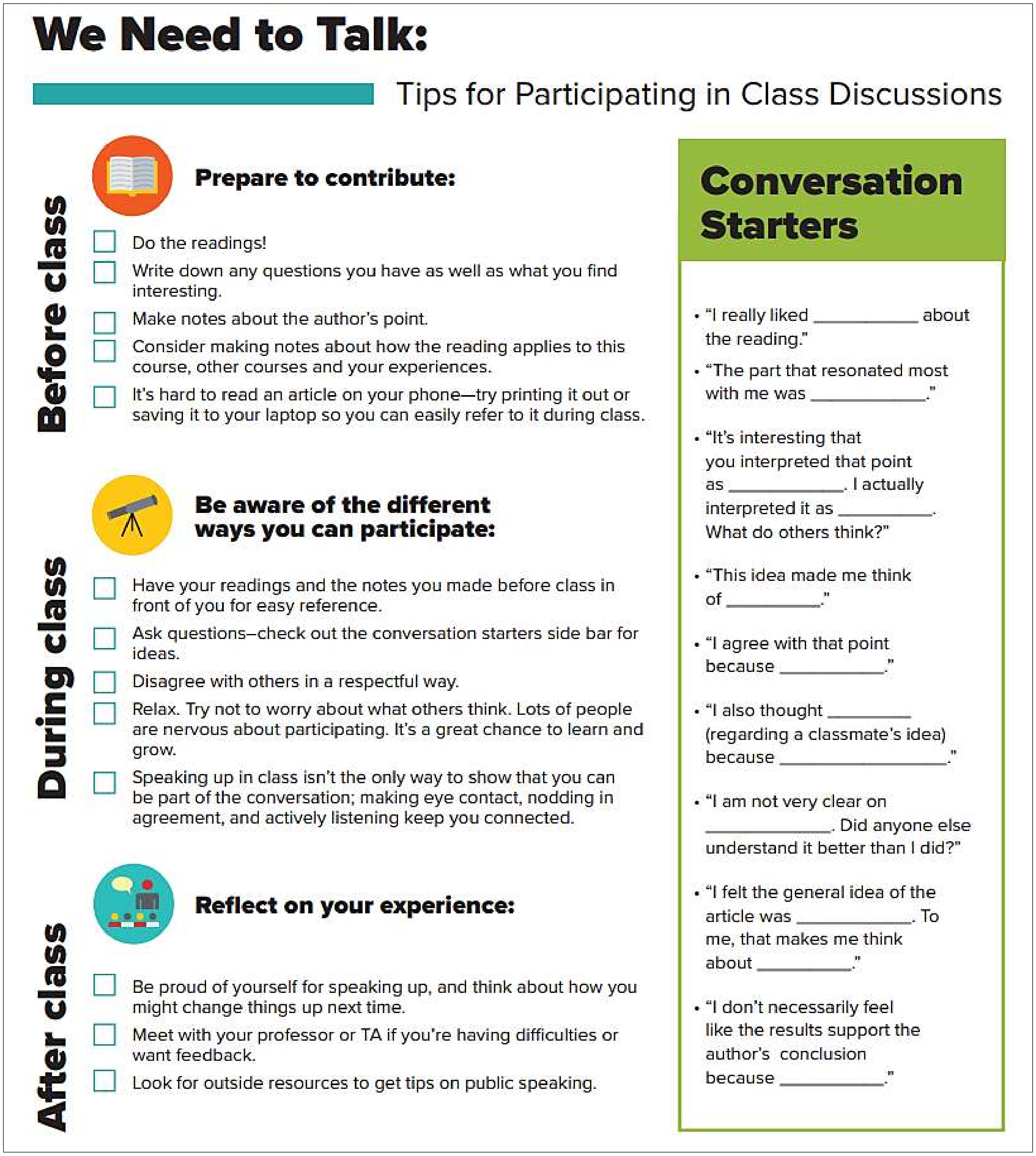


Figure 3. How to take part in class discussions

Always be respectful of others' ideas during a class discussion to encourage a positive and productive session. Remember that one of the reasons to engage in discussion is to hear viewpoints different from your own—ultimately these viewpoints may help to refine your own understanding of the reading.

Meeting with your instructor to discuss the text might also help bring your own ideas into focus. Faculty members appreciate talking with students who take active steps to ensure their own success, so be sure to read the document prior to the appointment. Schedule the meeting with your instructor by sending an email that applies the best practices discussed in this textbook, and arrive on time to the session prepared with your questions. Figure 4, a multipage handout adapted from Roux et al. (2020), illustrates these pieces of advice.

Can you think of any other tips you would add to the visual?

How might the skills used to schedule and participate in a meeting with an instructor be transferred to a workplace context?

Quick Tips for Contacting Instructors Over Email

1 Header

- Email well in advance of when you need your question answered.
- Use a professional email address.
- Include a subject line that is specific and includes identifying information.

2 Greeting

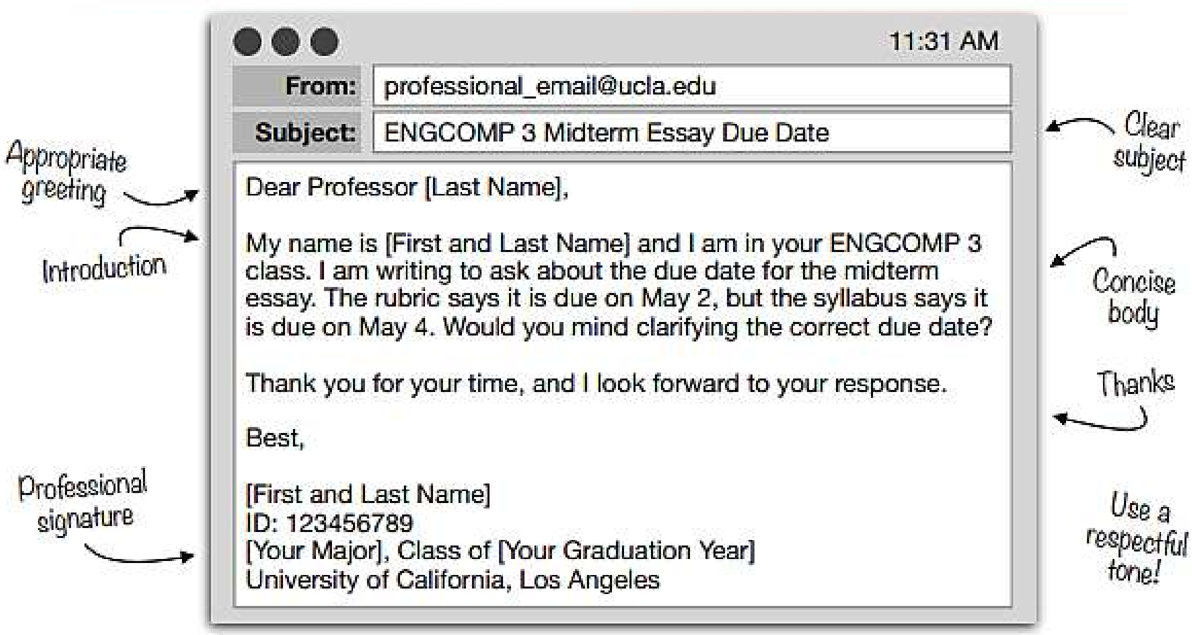
- Use a formal greeting like "Hello" or "Dear" instead of "Hey" or "Hi!"
- Use the correct prefix for your instructor! A quick google search will tell you if they have a PhD. Otherwise, Professor is usually a safe bet.

3 Body

- Identify yourself! If you are in a class with the instructor, identify the class name and the project you are working on.
- Clearly state the purpose of your email and what you have done already to resolve the problem.
- Provide all necessary information in the first email to minimize the email exchange.
- Close with a question or statement that clearly says what action you want them to take.

4 Closing

- Thank them for their time!
- Sign off and include your name/signature and any important identifying information your instructor may need (e.g. ID number).



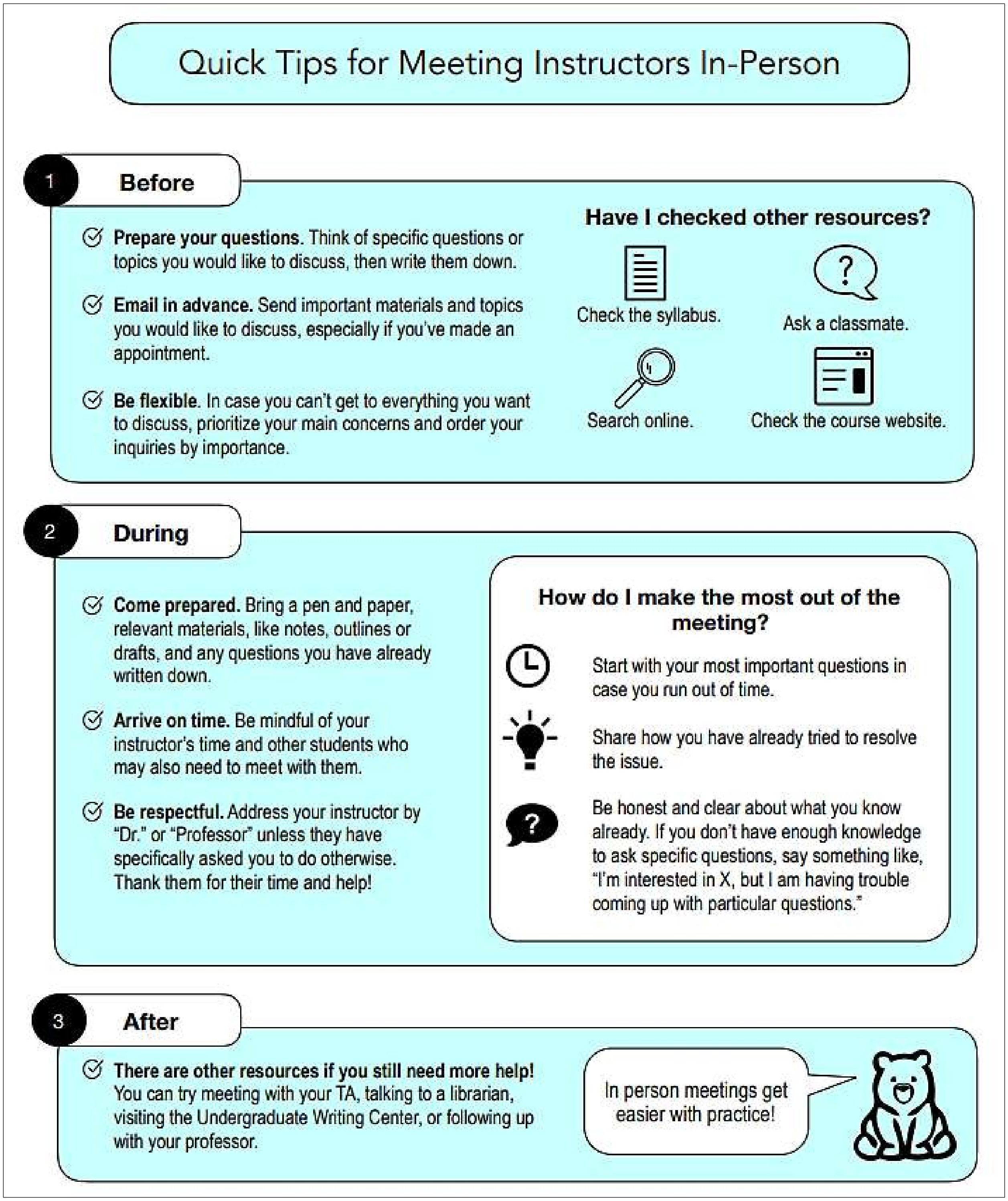


Figure 4. Tips for emailing and meeting with an instructor

Do not be afraid to discuss points of uncertainty or confusion during a meeting with an instructor. After all, your purpose is to seek clarification about a text so that you may write about it confidently in a critical review.

Understand How to Organize a Critical Review

Once you have read the text and feel confident about discussing it, you can make plans for your critical review. This type of paper generally follows an introduction, body, and conclusion structure, the same organizational configuration you have applied when writing memos and letters.

The Introduction

To establish context for readers, begin the introduction with a concise summary of the document under review; list the document's title and author at the beginning of the summary. This summary serves as a foundation for the subsequent critical discussion of the text presented in the body section of the paper. Recall that when composing a summary, a writer uses his or her own words and sentence structures, focuses on main points, excludes details, and cites and references source material. The following summary, adapted from the Writing and Communication Centre, University of Waterloo (n.d., para. 4), demonstrates application of these summary guidelines.

> In their article "British Columbia's Revenue-Neutral Carbon Tax: A Review of the Latest 'Grand Experiment' in Environmental Policy," Murray and Rivers (2015) examine the outcome of that province's first attempt to institute a carbon tax. The main goal was to try to lower greenhouse gas (GHG) emissions. Following principles favored by economists, the authors explain that the province began with a small tax and increased the rate over several years, allowing taxpayers to ease into the plan slowly. By reviewing other research studies and using a simulation model, Murray and Rivers (para. 1) find that GHG emissions decreased by 5 to 15 percent as a result of the carbon tax. This reduction was higher than expected, and the authors suggest that a carbon tax not only works because of the extra financial burden, but also because of some other social cost of consuming fossil fuels; however, the exact mechanism is not yet understood. Their study also revealed that public support for the carbon tax grew post-implementation.
>
> **Reference**
>
> Murray, B., & Rivers, N. (2015). British Colombia's revenue-neutral carbon tax: A review of the latest 'grand experiment' in environmental policy. *Energy Policy, 86*, 674-683. https://doi.org/10.1016/j.enpol.2015.08.011

Notice how compact this summary is: it communicates the central points of a nine-page journal article in one concise paragraph.

After the summary, continue the introduction by supplying a thesis statement that reveals the critical review's purpose and your determination regarding the effectiveness of the text's argument: this determination is the result of your analysis and evaluation of the argument. The thesis may also outline the critique's organization; alternatively, you might decide to place the forecasting statement (route map) in a separate sentence at the end of the introduction. The following introduction, adapted from Grosz (2019, paras. 1, 2, 3), demonstrates these elements at work in a sample critique introduction.

In his 2019 *Harvard Data Science Review* article entitled "Artificial Intelligence—The Revolution Hasn't Happened Yet," Michael I. Jordan makes evident that many have lost sight of the full richness of human intelligence and have neglected to separate foundational understanding from engineering. Most importantly, he points out the need to develop an "engineering discipline . . . for the data-focused and learning-focused fields" and that the systems based on their methods "should be built to work as claimed" (para. 29). A distinguished machine learning insider, Jordan speaks with authority, bringing insight to current discussions of the promise of artificial intelligence (AI) and the potential threats it raises for societal wellbeing. The article, nonetheless, misses two important pieces of the story: the point that when established, the AI and human-computer interaction fields initially competed to their detriment and the reality that humanities values and social science principles are central to the foundation of the engineering discipline he describes. I discuss these matters in turn and then indicate ways they should inform the engineering discipline Jordan envisions.

Reference

Jordan, M.I. (2019). Artificial intelligence—The revolution hasn't happened yet. *Harvard Data Science Review, 1*(1). https://doi.org/10.1162/99608f92.f06c6e61

Although the jargon used in this paragraph may be unfamiliar to you, the text's organizational structure is nevertheless clear.

The Body

Organize your body paragraphs around the themes that resulted from your evaluation of the text. In other words, rather than discussing each paragraph of the text in a chronological fashion—an approach that can be wordy and repetitious—think about the main points that emerged during your examination of the text's argument, and center your discussion on those areas. Your aim when writing a critical review is to construct an argument about the effectiveness of the text's argument, so begin each body paragraph with a topic sentence that makes a claim in reference to an evaluation theme. Then develop the body paragraphs by discussing examples and evidence from the text to support your points; remember to indicate the relevance of this information to your argument and incorporate it cohesively into your text.

The following student example, adapted from Jensen (2014) as cited in Excelsior Online Writing Lab (2020f, "Sample Essay"), demonstrates these guidelines at work in a body paragraph.

In the article “Why I Won’t Buy and iPad (and Think You Shouldn’t, Either),” Cory Doctorow (2014) expresses bias against the digital rights management (DRM) control built into the Apple iPad’s design by constructing a one-sided argument. He makes the point that Apple “uses DRM to control what can run on your devices, which means that Apple’s customers can’t take their ‘iContent’ with them to competing devices, and Apple developers can’t sell on their own terms” (para. 13). Doctorow is a software creator, so he has something personal to gain from unconstrained digital media sharing; however, not everyone can develop software. The author overlooks the iPad’s beneficial applications, which can be used by a diverse range of people, by focusing only on those who are looking to develop and sell their own software. Just because the iPad does not work for Doctorow does not mean it will not work for others.

Reference

Doctorow, C. (2010, April 2). *Why I won't buy an iPad (and think you shouldn't, either)*. BoingBoing. https://boingboing.net/2010/04/02/why-i-wont-buy-an-ipad-and-thi.html

Be sure to cite and reference pieces of evidence, including those taken from the text under review, as the sample does.

The Conclusion

When writing the conclusion section of a critical review, reiterate your thesis (without repeating it word for word) and emphasize what your analysis and evaluation reveals about the text under review.

Plan Your Critical Review

A well-organized critical review requires careful planning: although close work with a text can reveal many points about its argument, you will likely only be able to discuss a selection of these in your paper given length restrictions. An outline may help you to narrow the focus of your paper and devise a logical plan for its construction. Figure 5, adapted from Excelsior Online Writing Lab (2020e), provides tips for outlining.

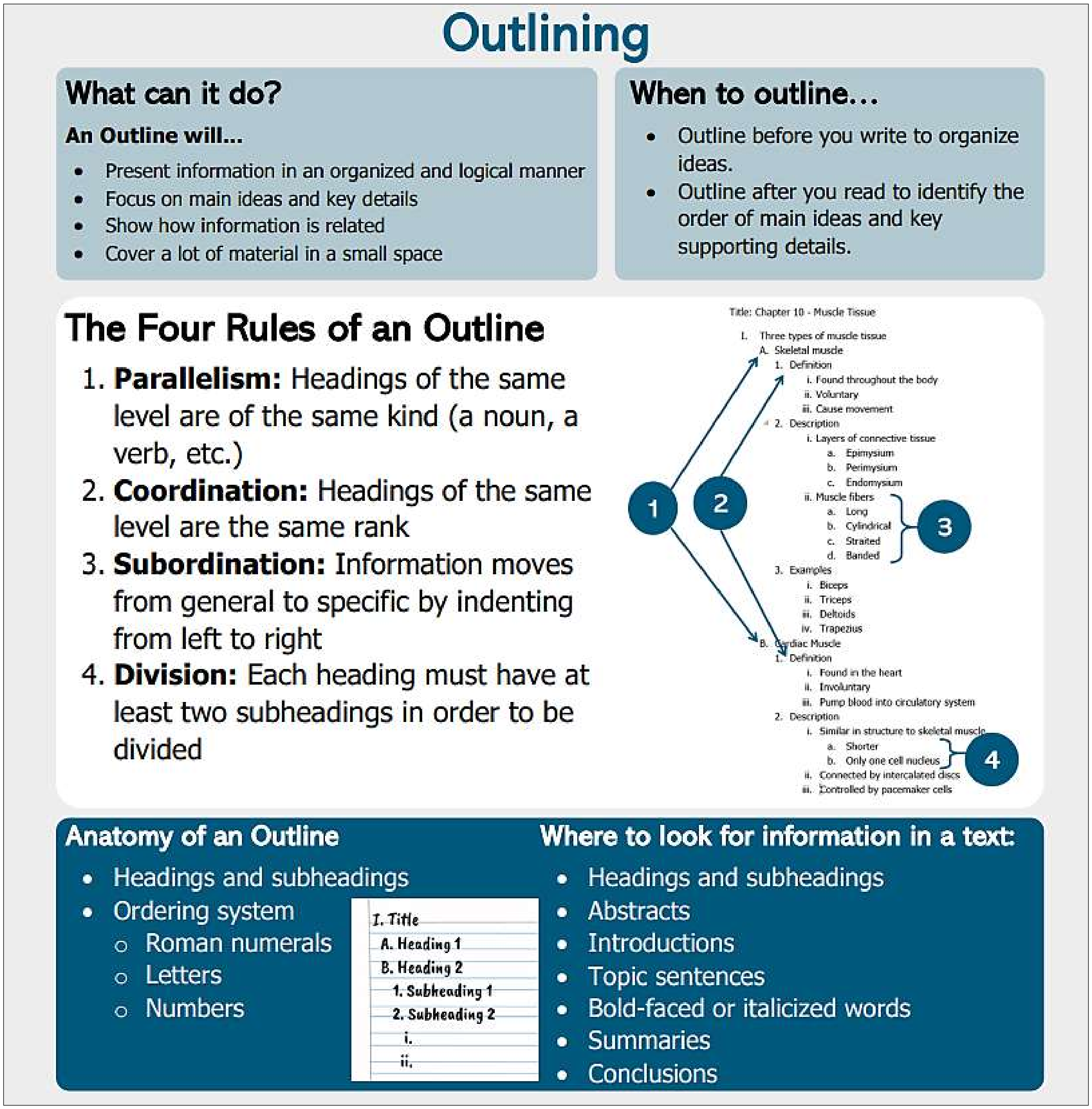


Figure 5. Guidance for constructing an outline

A concept map, also known as a mind map, can also be used to plan a critical review. Figure 6, adapted from Excelsior Online Writing Lab (2020b), supplies directions for constructing a concept map.

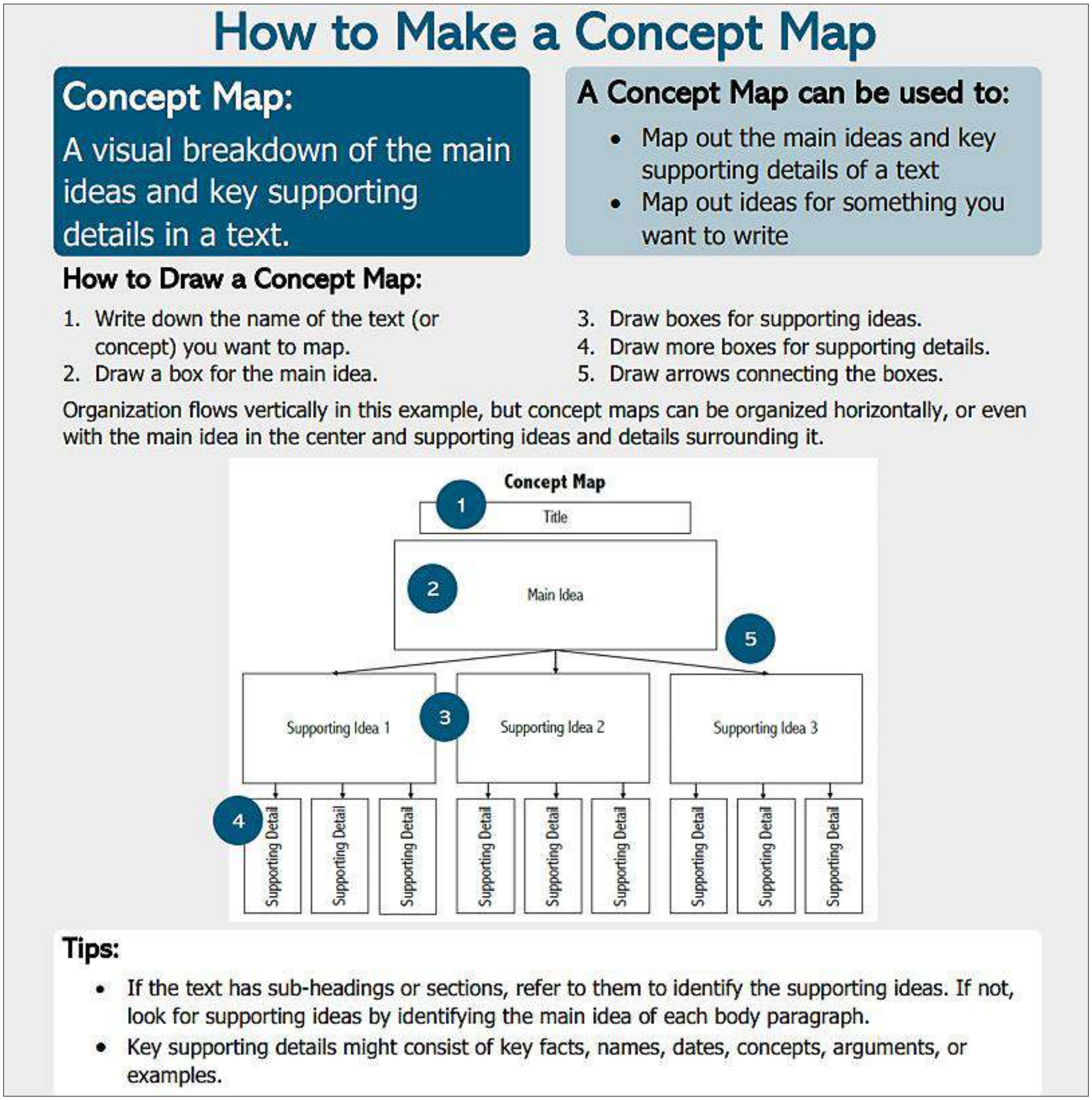


Figure 6. Instructions for creating a concept map

Whatever planning method you select, concentrate only on prominent evaluation themes in order to address those themes adequately in your paper.

Use an Appropriate Tone and Language When Writing a Critical Review

A critical review aims to reveal the positive and negative aspects of a text's argument in order to comment upon its effectiveness; in so doing, a critical review makes its own argument. As with other types of academic and technical writing, maintain a respectful, reasonable tone when writing a critique so that you work is taken seriously. *Tone* is the attitude a writer conveys toward a paper's audience and subject matter. Strive to build your argument on clear claims, rational reasons, and quality evidence—as well as coverage of counter-claims, reasons, and evidence—rather than on emotive language, exclamatory sentences, personal attacks, or indefensible assertions. The latter weaken an argument's persuasiveness and are inappropriate in academic and technical writing.

When writing a critical review, use words that are precise, concise, and appropriately formal. The following guidelines elaborate on these points.

Negative Sentence Construction

Avoid negative sentence constructions because they can be awkward and difficult to follow. Here is an example.

- Instead of: He did not remember to complete the homework assignment.
- Write: He forgot to complete the homework assignment.

The affirmative sentence construction provides a clear and concise alternative to the awkward first version.

Word Choice (adapted from McNamee, 2019, p. 1)

When writing for a technical or academic audience, avoid unquantifiable descriptive words, such as *good*, *bad*, *great*, *huge*, *big*, *very*, *extremely*, *incredibly*, and *enormously*. These words are problematic because they do not define a specific degree or amount.

Sentence Structure (adapted from McNamee, 2019, p. 2)

Aim to convey the meaning of a sentence, the key information, at the beginning of the sentence. To demonstrate, look at these two examples.

- Instead of: Despite the margins of error due to human error that occurred due to improper pipette cleaning, the results showed that the pH still remained acidic.
- Write: The results showed the pH remained acidic, despite the margins of error due to improper pipette cleaning.

The first version is unclear because the beginning clause does not communicate the main purpose of the sentence. The second version communicates the focus of the sentence early on and is also more concise.

Language (adapted from Excelsior Online Writing Lab, 2020g)

Make every effort to use language that is clear and appropriately formal when writing a critical review. Here are some specific guidelines to keep in mind.

- Avoid *I think*, *I feel*, *I believe* statements unless your instructor advises otherwise.
  - Instead of: I think anyone who becomes a parent should have to take parenting classes.
  - Write: Parenting classes should be mandatory for biological and adoptive parents.
- Avoid using the word *you* to refer to people in general.
  - Instead of: When you read this textbook, you will notice the content is focused on technical writing.
  - Write: Textbook readers will notice this book's content focuses on technical writing.
- Avoid contractions.
  - Instead of: The study didn't examine how age affected participants' notetaking practices.
  - Write: The study did not examine how age affected participants' notetaking practices.
- Avoid wordy, informal phrases.
  - Instead of: A lot of employees showed up at the staff meeting.
  - Write: Twenty-five employees attended the staff meeting.
- Avoid redundant words and phrases.
  - Instead of: The conference presentation was brief in length.
  - Write: The conference presentation was brief.

Consider the audience, purpose, context, and genre for a critique to gauge the level of formality expected in the document.

Can you think of any other tone or language tips you would add to this textbook section?

Activity A: Read and Work with a Text that Addresses Top Writing Errors

Read the handout "Top Twenty Errors in Undergraduate Writing" (Hume Center for Writing and Speaking, Stanford University, n.d.), which can be found at the following address.

https://undergrad.stanford.edu/tutoring-support/hume-center/resources/student-resources/grammar-resources-writers/top-twenty-errors-undergraduate-writing

Now review the feedback on three of your previous writing assignments. Do you detect any of the errors listed on the handout in your work? Identify three issues that recur in your assignments and handout sections/explanations that will help you address these issues.

Issue one + handout section/explanation:

Issue two + handout section/explanation:

Issue three + handout section/explanation:

Activity B: Read and Engage with a Formal Report

Watch a video entitled "Meet Emma – Your Work Colleague of the Future" (Fellowes Brands, 2019), which can be found at https://www.youtube.com/watch?v=fL5SuzGkUPw, for an introduction to the topic of a particular formal report.

Now open William Higham's (2019) formal report entitled "The Work Colleague of the Future: A Report on the Long-Term Health of Office Workers" at https://assets.fellowes.com/skins/fellowes/responsive/gb/en/resources/work-colleague-of-the-future/download/WCOF_Report_EU.pdf. You will be asked to write a critical review of Higham's report for homework. To help you comprehend and connect with the ideas discussed in the report, practice preview, close, and critical reading techniques by following the steps listed. Actively engage with the text by making notes on the steps as you proceed.

1. Preview the report.
    a. Look at the title of the text. Based on the title, what do you think the report is about?
    b. Look at the text's headings and subheadings. What do these tell you about the topic of the report?
    c. Skim through the introduction. What do you expect the report will discuss?
    d. Skim though the final section of the report. What did you learn?
    e. What is your initial impression regarding the soundness of the report? What made you form that impression?
2. Investigate the report's author.
    a. What do you know about Higham or Fellowes, the organization that commissioned the report? Google them now on your computer.
    b. Does what you discovered about them change your impression regarding the soundness of the report? Why or why not?
3. Consider the report's construction.
    a. On first glance, does the document follow the conventions for formal reports outlined in the "Reading Actively" chapter of this textbook?
    b. If so, how? If not, how does it deviate from the conventions, what effect does the deviation have on you as a reader, and what might be the reason for the deviation?

4. Perform a close reading of the text.
    a. Read the report in full. Annotate as you go by highlighting keywords, phrases, and sentences and by underlining or noting down unfamiliar terms, questions, and thoughts regarding the reading.
        - After reading, try to define the unknown terms you identified.
        - After reading, try to answer your questions. You may need to review the essential details of the text again to do this.
    b. Determine the report's purpose or thesis.
    c. Determine the report's target audience.
    d. Identify the main idea of the section entitled "Findings."
    e. Identify the main idea of the section entitled "Danger Zones."
    f. Identify the main idea of the section entitled "Our Offices."
    g. Identify the main idea of the section entitled "Physical Impact."
    h. Summarize the text using your notes.
        - Concentrate on the report's purpose/thesis and main ideas or themes when summarizing, and omit details.
        - Put the report away when summarizing it to avoid copying its language and sentence structures.
5. Perform a critical reading of the text.
    a. Identify how the author contextualizes the report for readers by looking for associations between its content and readers' experiences.
    b. Consider your own reactions to the reading.
        - What, if anything, about the reading is unclear? Why is it unclear?
        - Are the author's points logical? Do they make sense?
        - Does the text deliver on the promises it made in its title and introduction?
        - Do you find the author's writing style persuasive? Why or why not?
        - What ideas do you find most thought-provoking?
        - What points do you want to investigate further?
        - How does the reading compare with other texts on the same topic?
    c. Identify the evidence used to support the report's main ideas. Evidence may be presented in the form of facts, quotations, paraphrases, summaries, and visuals.

- Is each of the author's viewpoints (claims) supported with evidence?
- Is the evidence comprehensible?
- Does the evidence sufficiently support the claim?
- Is the evidence relevant to the claim?
- Is the evidence logically tied to the claim?
- Given the purpose of the piece and its audience, is the evidence from suitable sources?
- Is the evidence research-based (*empirical*), factual, or grounded in hearsay or casual observation (*anecdotal*), or does the author rely heavily on a reader's emotional reactions to communicate the force of his viewpoints?
- Is the evidence credible?
- Can you easily associate citations with their references and sources?

d. Identify the connection of reasons to viewpoints. The report author may state reasons outright—look for uses of *seeing as*, *because*, *since*, *given that*, and the like—or imply them.

e. Determine whether the author considers alternative points of view.
   - Does the author address counter-claims?
   - Does the author address counter-reasons?
   - Does the author address counter-evidence?
   - Does the author respond reasonably to other viewpoints or simply dismiss them?

f. Consider the design of the report relative to its genre.
   - What impression does the design give you?
   - How does the design contribute (or not) to your understanding of the report?

g. Develop a thesis based on the results of your analysis and evaluation of the report.
   - Does your thesis articulate the theme of your paper and express your viewpoint?
   - Is your thesis an arguable statement rather than a statement of fact?
   - Can the argument conveyed in your thesis be supported with claims, reasons, and evidence?

Homework: Compose a Critical Review Essay

Draw upon what you did in Activity B to write an essay that critiques "The Work Colleague of the Future: A Report on the Long-Term Health of Office Workers" (Higham, 2019). This assignment asks you to closely examine the argument presented in the formal report (analyze it) and explain to readers how effective the argument is (evaluate it). Remember that a critical review makes an argument: you will need to support your claims about the report with reasons and evidence and cite and reference all outside sources of information used. Follow the guidelines presented in this chapter when writing your paper; in addition, consult the "Writing Essays" chapter of this textbook for essay formatting guidance and the "Writing to Persuade" chapter for argumentation information. Lastly, use the points you identified in activity A to revise your work.

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Writing to Persuade

Dawn Atkinson

Chapter Overview

This chapter discusses the fundamentals of argumentation by exploring what arguments are, what elements comprise them, and what factors bolster or weaken the strength of arguments in an effort to help you learn how to compose them. Argumentation is a pervasive feature of writing: for example, authors employ persuasive tactics to encourage readers to adopt certain perspectives, to consider the importance of information, to support or fund projects, to read beyond the first lines of a document, and, more generally, to consider the competent construction of a text and its fluid means of communicating information. Although some of these circumstances call for a nuanced approach to persuasion, this chapter addresses explicit argumentation in documents in an effort to lead into the chapter's deliverable, a researched *argument essay*. This type of essay relies on research-based evidence to build a case for something that is debatable.

What are arguments?

By definition, *arguments* articulate viewpoints, support the views with evidence, and provide reasons to link the elements together. For arguments to be arguments, the views espoused have to be debatable, meaning that different people can take different positions on them. When composing an argumentative piece, the objective is to persuade readers that your viewpoint is sound through the logical and coherent delivery of quality information.

What are the building blocks of arguments?

An argument is composed of three key elements: claims, evidence, and reasons. A *claim* communicates a standpoint, a particular stance on something. Taking this definition into account, some claims cannot be argued. Facts, for example, cannot be argued because they are indisputable, meaning they are true in all instances. Points of view that cannot be supported with research-based evidence also cannot be argued, at least not in academia or the workplace. *Evidence* is information used to support claims so that readers can make determinations regarding their legitimacy. Evidence can take a wide variety of forms, such as quotations, paraphrases, summaries, visuals, numerical data, and facts, although readers should readily understand the connection between claims and evidence, perceive that the evidence sufficiently reinforces the claims, and regard the evidence as credible. *Reasons* connect claims and evidence. In plain terms, a reason is a *because* statement, a rationale for a claim that leads into the evidence that supports the claim, although a reason may sometimes be implied by a writer rather than stated outright. Sound arguments contain all three elements described here: claims, evidence, and reasons.

Strong arguments also include coverage of alternate points of view—in other words, counterarguments—and their accompanying claims, evidence, and reasons. By incorporating these elements, writers demonstrate that they

- Recognize the multifaceted nature of issues.
- Can be reasonable by considering different viewpoints.
- Have been thorough when investigating topics.

Writers have choices when deciding how to acknowledge counterarguments. They can concede that the arguments are valid, at least in part, to demonstrate a fair-minded approach. Indeed, they might use certain phrasing to indicate this intention, as the following examples illustrate.

- While it is true that ___, I argue ___ because ___.
- ___ makes a legitimate point when claiming that ___; however, he/she seems to overlook ___, which is a key concern for ___.
- Although I concede the legitimacy of ___, I still maintain that ___ because ___.
- Though ___ is no doubt an authority on this issue, the evidence points to ___.

Alternatively, writers may refute the validity of counterarguments by first explaining them—touching upon their claims, evidence, and reasons—before segueing into a discussion of their own arguments. Writers may signal this intention to readers by using the following phrases or similar.

- ___ makes the point ___, but another way to view this topic is ___.
- This paper however argues ___.
- ___ claims that ___ but offers little research-based evidence to support that viewpoint. I instead contend that ___, using ___ as evidence to support my view.
- ___ challenges the view that ___ because ___.

Whether writers concede or refute the legitimacy of counterarguments, they should maintain a respectful tone and treat opposing sides fairly rather than belittling or oversimplifying them. Doing so will help to establish credibility in readers' eyes, contributing to the persuasiveness of the writers' documents.

What are the different types of claims in arguments?

If we acknowledge that a claim communicates a standpoint, it stands to reason that claims can be more or less strong. A spectrum of strong and less strong language can be used both when presenting one's own claims and when reporting others' claims to indicate, for example, degrees of likelihood, rates of occurrence, or measures of extent.

- Degrees of likelihood: certainly → probably → likely → possibly → doubtfully

- Rates of occurrence: always → usually → often → rarely → never
- Measures of extent: all → most → many → few → none

When writers feel certain about claims, they may use strong (unqualified) language to articulate them in a straightforward manner, as in the following example.

> Students who spend two hours on homework for every one hour of class time are more successful in college than those who do not.

On the other hand, if writers wish to acknowledge that claims might not be true in every situation, they can use qualified language (also referred to as *hedging*) to moderate the force of those claims, as in the following example.

> Students who spend two hours on homework for every one hour of class time tend to be more successful in college than those who do not.

Qualified language does not necessarily point to a flawed claim or argument; instead, it demonstrates a careful approach to argument construction, one that takes target readers' anticipated reactions to a text into account. However, misrepresenting reality by making exceptionally weak claims implies an attempt to mislead readers that can damage the persuasiveness of an otherwise sound argument.

In addition to the points about qualifying language already mentioned, also be aware that different verbs convey different levels of certainty when paired with claims. Table 1, adapted from Lingard (2020, p. 108), presents examples of verbs and the degrees of inevitability they express.

Table 1. A variety of verbs and their associated levels of certainty

Degrees of Certitude	Verbs
Strong	know, understand, argue, affirm, stress, debate, emphasize, maintain, declare, stipulate, warn, conclude, clarify, identify, insist
Moderate	comment, explain, indicate, note, observe, state, describe, identify, find, suggest, indicate, say
Weak	speculate, wonder, believe, note, offer, view, suspect, consider, propose

To demonstrate the idea that verbs communicate various levels of strength when paired with claims, read the following journal article title (from Letessier et al., 2019).

> "Remote Reefs and Seamounts are the Last Refuges for Marine Predators across the Indo-Pacific"

Do the writers make a strong or tentative claim? How do you know?

Next read a sentence from the "Concluding Remarks" section of the same article. Although you may not understand all the specialized terminology used in the extract, think about the level of certitude associated with the verbs in the sentence.

> "We propose that identifying these in the pelagic realm, specifically outside national jurisdictions in the high sea, should be a research priority."

Do the writers make a strong or tentative claim? How do you know?

Now read this thesis from a student's argumentative essay (Jackson, 2014, p. 1, as cited in Excelsior Online Writing Lab, 2020e, "Sample Toulmin Argument").

> "Just because child beauty pageants are socially acceptable does not mean they should be. Our culture needs to eliminate child beauty pageants, at least in their current form."

Does the writer make a strong argument, a tentative argument, or combine levels of certitude? How do you know?

When writing an argumentative piece, consider your audience carefully, and try to anticipate how much readers know about your topic, what kind of resistance they might put up to your position or the information you present, and what you can reasonably do to convince them otherwise through your use of language.

How is a researched argument essay organized?

As this chapter's introductory paragraph indicates, arguments are a ubiquitous feature of written communication. An employee might send his supervisor an email message, for instance, to ask for time off and present evidence and reasons to support his case, while a student in search of college funding might complete a scholarship application and bolster the strength of her submission with evidence and reasons. A researched argument essay similarly makes it point with claims, evidence, and reasons.

Like other types of essays, a researched argument is composed of an introduction, body, and conclusion section, plus a reference page that provides the full bibliographic details for citations listed in text. An introduction presents context-setting or background information, reveals the document's central argument, and outlines the paper's structure; the body paragraphs expound on the essay's central argument until it is fully developed; and the conclusion emphasizes the document's central argument and reiterates key takeaways.

How is an essay's central argument communicated?

A writer uses a thesis statement, a sentence or two placed at or near the end of an introduction section, to communicate an essay's central argument. The thesis expresses the author's informed opinion on a topic and controls the development of the rest of the paper by defining its focus and scope. Establishing an initial research question is a useful first step in composing a thesis statement since a research question delimits the direction of a project. A research question, in other words, guides the course of research associated with a project, helping a writer explore a subject in order to formulate an informed opinion about it. A thesis statement, in turn, answers a research question in sentence form. Read the following example, adapted from McKeever (n.d.-c, "Formulate a Thesis & Start to Organize"), to see the connection between a research question and a thesis statement.

- Research question:
    - What is so bad about cheating in college?
- Points discovered through research:
    - It condones deceit.
    - It impedes the learning process.
    - It creates residual effects in other aspects of life.
- Working thesis statement:
    - Cheating in college impedes the learning process, leaving students ill-prepared for the complexities of the workplace; worse still, it makes them callous about cheating in government and business.

A working thesis statement can usefully guide the development of an argument essay, but be prepared to refine it as a paper takes shape.

While a research question can help facilitate the formation of a thesis statement by encouraging investigation of a topic, a writer may also need to ask probing questions of the information discovered through research to flesh out the direction of a paper. Your initial set of questions will likely concentrate on the quality of evidence you gather through research since evidence is one of the building blocks of arguments. Although other chapters of this textbook address source evaluation in some depth, the handout in Figure 1, adapted from Carey (2020,

p. 2), offers a reminder of questions to ask when evaluating source quality and when considering the relationship of evidentiary information to your paper's purpose and context. Be discerning in your choice of sources to boost the persuasiveness of a paper.

The following questions will help you think critically as you examine a particular source:

Purpose: How and why the source was created.

- Why does this information exist—to educate, inform, persuade, sell, entertain? Do the authors, publishers, or sponsors state this purpose, or try to disguise it? Is the source deliberately trying to misinform?
- Why was this information published in this particular type of source (book, article, website, blog, etc.)?
- Who is the intended audience—the general public, students, experts?

Relevance: The value of the source for your needs.

- Is the type of source appropriate for how you plan to use it and for your assignment's requirements?
- How useful is the information in this source, compared to other sources? Does it answer your question or support your argument? Does it add something new and important to your knowledge of the topic?
- How detailed is the information? Is it too general or too specific? Is it too basic or too advanced?

Objectivity: The reasonableness and completeness of the information.

- Do the authors present the information thoroughly and professionally? Do they use strong, emotional, manipulative, or offensive language?
- Do the authors, publishers, or sponsors have a particular political, ideological, cultural, or religious point of view? Do they acknowledge this point of view, or try to disguise it?
- Does the source present fact or opinion? Is it biased? Does it offer multiple points of view and critique other perspectives respectfully? Does it leave out, or make fun of, important facts or perspectives?

Verifiability: The accuracy and truthfulness of the information.

- Do the authors support their information with factual evidence? Do they cite or link to other sources? Can you verify the credibility of those sources? Can you find the original source of the information?
- What do experts say about the topic? Can you verify the information in other credible sources?
- Does the source contradict itself, include false statements, or misrepresent other sources?
- Are there errors in spelling, punctuation, or grammar?

Expertise: The authority of the authors and the source.

- What makes the authors, publishers, or sponsors of the source authorities on the topic? Do they have related education, or personal or professional experience? Are they affiliated with an educational institution or respected organization? Is their expertise acknowledged by other authorities on the topic? Do they provide an important alternative perspective? Do other sources cite this source?
- Has the source been reviewed by an editor or through peer review?
- Does the source provide contact information for the authors, publishers, and/or sponsors?

Newness: The age of the information.

- Is your topic in an area that requires current information (such as science, technology, or current events), or could information found in older sources still be useful and valid?
- When was the information in the source first published or posted? Are the references/links up to date?
- Are newer sources available that would add important information to your understanding of the topic?

Figure 1. Questions for evaluating source quality

As you identify evidentiary sources, also think carefully about what they contribute to your paper. You may need to ask further probing questions of the sources in the process of formulating a thesis statement to discover how they are similar and different, how they intersect with your own ideas, and how this combination can help inspire the creation of new ideas through synthesis. Figure 2, adapted from McKeever (n.d.-a, p. 2), lists a number of inquiries to facilitate this stage of questioning.

Types of inquiry questions

If you are stuck for how to develop your ideas more fully, try brainstorming with some of the questions below:

Type of inquiry	Questions you can ask
To compare or contrast, ask...	What is similar? How is it similar? How similar is it? What is different? How is it different? How different is it?
To find causes or effects, ask...	What are the general causes? What are the general results? What are the specific causes in this case? What are the specific results in this case? What if it were different? What would be the results? Could there be unintended results?
To examine my experience and the experience of others, ask...	Is it possible? Is it probable? Has it happened before? Is it likely to happen in the future?
To consider different points of view, ask...	What do others think about this? What is the opposite view?
To consider a counterexample, ask...	What if it were different? What might cause it to be different?
To judge if something is good or bad, ask...	Is it good? What makes it good? Is it right? What makes it right? Is it bad? What makes it bad? Is it wrong? What makes it wrong?
To consider the benefits or burdens, ask...	Who would benefit? In what way? Who would suffer? In what way? Do the benefits exceed the burdens?
To evaluate the practicality or possibility of something, ask...	Will it work? What needs to happen to make it work? What are the possible consequences? What are the probable consequences? What are the possible side effects? What are the probable side effects? Is it desirable? Is it undesirable?

Figure 2. Questions for developing an argument

Asking such questions of source information may help sharpen the focus of a thesis statement.

When writing a thesis for an argument paper, remember that it must articulate a specific and debatable point in sentence form. The following essay thesis, taken from McLaughlin Library, University of Guelph (n.d.-b, "Argument"), exemplifies how an unambiguous thesis can help guide the development of a paper.

> "Volunteer tourism in southeast Asia [topic] should be more strictly regulated [position] to prevent economic, social, and cultural exploitation [reasons]."

Readers will almost certainly be able to anticipate how the rest of the essay will unfold after reading this sentence in the introduction. Use the prompts in Figure 3 (adapted from McLaughlin Library, University of Guelph, n.d.-a) to help craft a specific and debatable thesis for an argument paper.

5 QUESTIONS TO STRENGTHEN YOUR THESIS STATEMENT

Your thesis statement here:

1. Does my thesis *directly* relate to the assignment?

Assignment question:
Which theorist do you believe was most influential in shaping modern ideas about child development?

Does not answer the question:
Vygotsky, Piaget, and Erikson have all had an important influence in shaping modern ideas about child development.

Answers the question:
Among the many child development theorists, Vygotsky has been the most influential in shaping modern ideas about child development because he developed the concept of the "zone of proximal development."

2. Have I identified a specific topic? (is it manageable?)

Not specific enough:
Free trade agreements have served Canada well.

More specific:
The North American Free Trade Agreement should be considered a success for Canada because it has created jobs, increased foreign investment, and lowered prices of everyday goods.

3. Is it actually an argument? (Could someone disagree with me?)

Not arguable (no one would disagree):
Watson and Crick discovered the structure of DNA in the 1950s.

Arguable:
Although Watson and Crick discovered the structure of DNA, the largely uncredited contributions of scientist Rosalind Franklin were crucial to their success.

4. Does it answer the "so what" question?

Not clear why the argument matters:
Shoplifting is wrong.
(So what? Why should we care?)

Importance of the argument is clear:
Shoplifting has negative economic effects, not only for retailers, but also for innocent consumers.
(We should care because of the economic impact on retailers and consumers).

5. Have I indicated, either within the thesis or in a nearby sentence, what the organization of the paper will be?

Thesis with no preview of organization:
This essay argues that the risks of privatizing Ontario's public sector services outweigh the benefits.

Thesis with preview of organization:
This essay argues that the risks of privatizing Ontario's public sector services outweigh the benefits. Specifically, I will show how private corporations do not always act in the public interest, how privatization could limit the power of the province and municipalities, and how privatization could lead to a decline in service quality and efficiency.

Figure 3. Prompts for creating specific and arguable thesis statements

Developing a sound thesis statement takes some work, but the effort will contribute to the logical development of your paper and your readers' ability to follow it.

How is an essay's central argument developed?

A writer develops an essay's central argument in a series of body paragraphs. Each body paragraph should focus on one main point so that readers can easily follow the essay's structure. This main point is articulated in a topic sentence, which is typically placed at the beginning of a paragraph, enabling readers to immediately identify the paragraph's focus. Everything that follows the topic sentence—for instance, examples, evidence, explanations, elaborations, and illustrations—should relate to the paragraph theme introduced in the topic sentence to give the paragraph unity. A writer connects the individual parts of the paragraph by using various devices, such as purposeful repetition, transitions, synonyms, antonyms, pronouns, and punctuation marks, to establish a coherent flow. Figure 4, adapted from the Writing and Communication Centre, University of Waterloo (n.d., p. 1), likens the connections among an argument's components to a tree trunk and its branches.

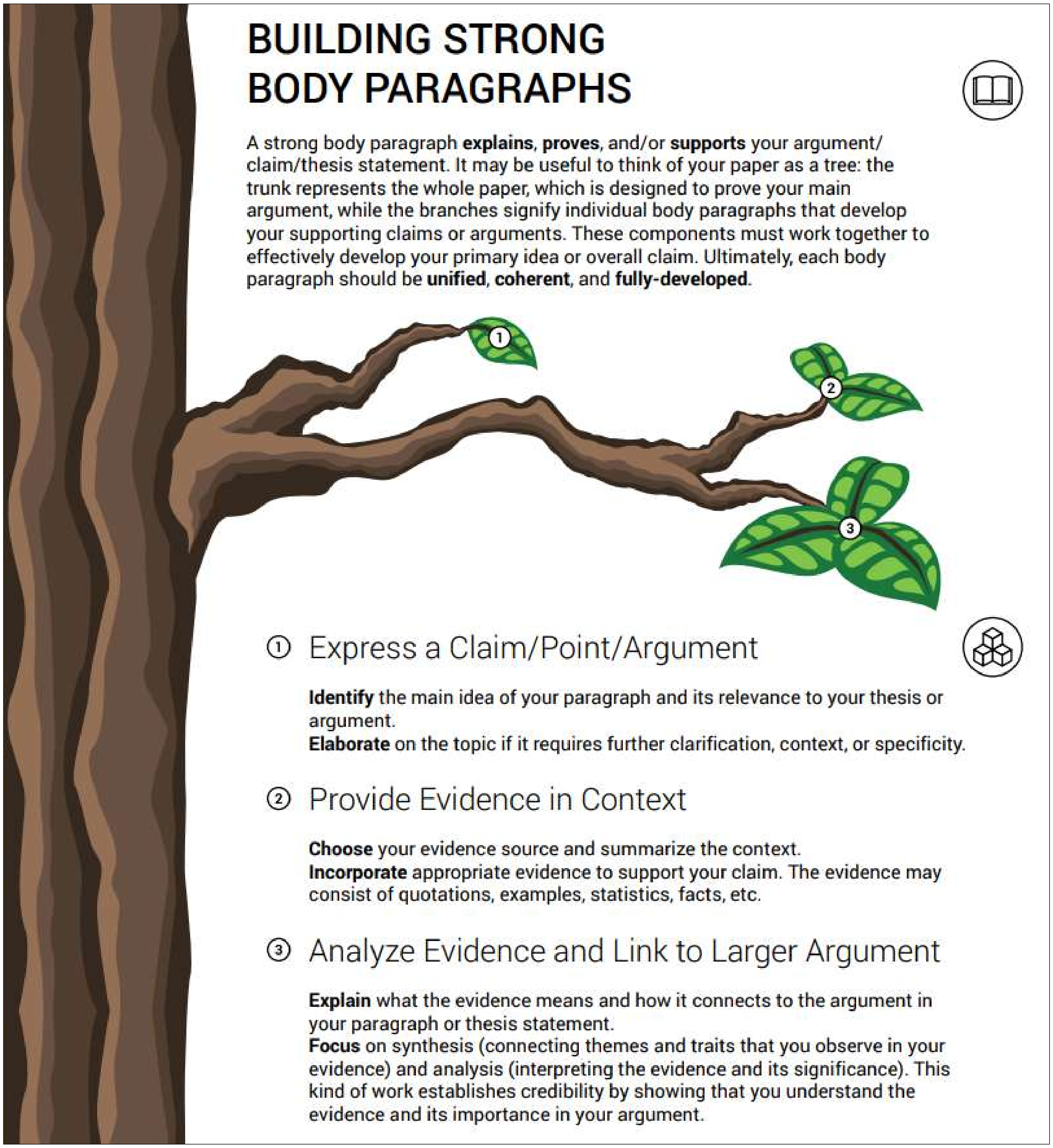

Figure 4. The connection between a central argument and its essential components

As Figure 4 explains, everything in the body paragraphs of a researched argument essay should relate back to the thesis statement, which expresses the central debatable point of the piece, to give the text an overall logical structure.

You have several options for the arrangement of body paragraphs in a researched argument essay.

- Block method of organization (foregrounding the writer's viewpoint): When using this method, discuss your claims, evidence, and reasons in early body paragraphs before discussing counterclaims, evidence, and reasons in later body paragraphs.
- Block method of organization (foregrounding the opposing viewpoint): When using this method, discuss counterclaims, evidence, and reasons in early body paragraphs before discussing your own claims, evidence, and reasons in later body paragraphs.
- Point-by-point method of organization (foregrounding the writer's viewpoint): Discuss one claim, piece of evidence, and reason before discussing the associated counterclaim, piece of evidence, and reason, and then repeat in subsequent paragraphs until your argument is fully developed.
- Point-by-point method of organization (foregrounding the opposing viewpoint): Discuss one counterclaim, piece of evidence, and reason before discussing your associated claim, piece of evidence, and reason, and then repeat in subsequent paragraphs until your argument is fully developed.

Following these patterns of arrangement in an essay helps to ensure all the necessary components of an argument have been addressed.

To help you become familiar with how a researched argument might be organized, decide which arrangement pattern is used in the following student essay sample. How did you come to your decision? The sample is adapted from St. Martin (2020, as cited in Excelsior Online Writing Lab, 2020d, "Sample Rogerian Argument") and follows APA seventh edition style guidelines.

The Debate About Homeschooling

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Writing 123: Writing Fundamentals

Dr. Elizabeth Smith

January 8, 2020

The Debate About Homeschooling

Over 20,000 Oregon students attend school at home (Hovde, 2013), and according to Martin-Chang et al. (2011), the national number of homeschoolers was close to 1.5 million children in 2008. Hovde (2013) estimated that the numbers account for about 2.9% of the total school-age population in the United States, a significant statistical proportion. She noted that while homeschooling has become a fashionable choice for young urban professionals who want the best education for their children, including many in the Pacific Northwest, the subject is still fraught with controversies about cognitive and social development, governmental involvement, standards, and safety. Opponents of homeschooling believe too much is often left up to parents, who can teach their kids anything they desire and limit contact with other perspectives and environments. Homeschooling is often associated with extremism, and potentially abusive situations are difficult to identify when the victims are isolated. Additionally, opponents fear that some parents choose homeschooling reactively out of fear or displeasure, rather than making a thoughtful choice based on their children's needs. Proponents of homeschooling believe homeschooled children are healthy and advanced learners because they receive one-on-one attention and often have some degree of control over their own learning. They believe parents can make the best choices for their children. Research and anecdotal evidence demonstrate that these positive claims are true in safe situations but are lost in extreme cases. Ensuring safety and educational support for all homeschooling students should be a top priority as the state works to ensure that parents who want to still have an opportunity to homeschool their children.

Plenty of information exists to validate the concerns of the opposition to homeschooling. In many cases, parents do have total control over the homeschooling environment. Oregon, for example, monitors homeschoolers by requiring children to take standardized tests in third, fifth, eighth, and tenth grade (Hovde, 2013). This requirement is the only major assessment. According to Joyce (2013), many states require even less from families who choose to homeschool: 26 states do not require any testing, and 11 do not ask for any kind of notification from homeschooling parents. In these locations, parental discretion becomes the law in place of any formal guidelines. Perhaps in most cases, such parental freedom benefits the children, but in others, as opponents note, the children lose out.

In her article “The Homeschool Apostates,” Joyce (2013) tells the stories of several former homeschoolers whose educational experiences were dangerous and harmful because of their parents’ fundamentalist stance. One woman explained,

> I was basically raised by someone with a mental disorder and told you have to obey her or God’s going to send you to hell….Her anxiety disorder meant that she had to control every little thing, and homeschooling and her religious beliefs gave her the justification for it. (para. 6)

In this same example, the parents also failed to take an active interest in teaching their children, choosing instead to simply hand out schoolbooks and require their pre-teens to self-teach. Joyce argued that this type of situation is not anomalous and cited websites such as *Homeschoolers Anonymous* and *No Longer Quivering* where hundreds of others have shared similar accounts of their homeschooling experiences. These students are in situations that are detrimental to their emotional, intellectual, social, and sometimes physical health, but little is done to protect them.

Questionable outcomes are not just limited to abusive situations. Sometimes, homeschoolers struggle to achieve on the same level as their peers despite their parents’ best intentions. According to Martin-Chang et al. (2011), children whose parents chose “unstructured” homeschooling did not achieve academically on the same level as their peers, falling behind students who participated in structured homeschooling and traditional schooling (p. 200). In the unstructured form of homeschooling, the learning process is entirely determined by the child, whereas in “structured” forms, “the parents [view] themselves as important contributors to their children’s education” (pp. 197–198). Structured homeschooling may still focus on a child’s individual interests, but the parents create lesson plans or otherwise guide the child’s learning (Concordia University, 2012). In an interview for Concordia University (2012), Martin-Chang acknowledged that the results of the study might have been different if student achievement had been measured using a different tool—the results were garnered from a standardized test with no connection to either the public school curriculum or homeschool groups—or if the children had been more than 10 years old at the time of the test. Despite these qualifiers, Martin-Chang felt the study’s initial findings were in keeping with other research that suggests parental engagement with the child’s learning is a good indicator of academic success. In some forms of homeschooling, it appears that there is a lack of this essential involvement.

On the other hand, homeschooled students whose parents instituted some structure scored higher on the independently implemented test than both the traditional students and the unstructured learners (Martin-Chang et al., 2011, p. 199). This result supports earlier, although potentially flawed, research indicating the high achievements of homeschoolers (pp. 195–196). Additionally, such findings underscore the claims of those who believe that homeschooling can have big benefits for children. Many believe that the big reason for homeschool success is parental investment. Martin-Chang et al. (2011) hypothesized, “This advantage may be explained by several factors including smaller class sizes, more individualized instruction, or more academic time spent on core subjects such as reading and writing” (p. 200). The flexibility of the homeschool environment allows parents to tailor the material and the schedule to the needs of their children, who, ideally, they know well and love tremendously.

Public school teachers cannot currently devote the same time to each child because they have full classrooms and additional demands on their attention from administrators and political figures.

Clearly, both opponents and proponents of homeschooling have well-supported arguments for their positions. Homeschooling is an option that often leads to high achievement and personal satisfaction for students. However, some situations are unhealthy and potentially harmful to a child's development. The solution to the homeschool controversy is a balanced approach that upholds the benefits of homeschooling while accounting for dangers. While, as Hovde (2013) noted, abuse can occur in any educational setting, Joyce (2013) thoroughly demonstrated that abused homeschoolers have a harder time finding access to help, emphasizing that, in the past "homeschooling families had to look for help through an informal grapevine of survivors" (para. 44). Now, those survivors are pushing for legal reforms that assess state policies for protecting homeschoolers. In order for homeschooling to remain a safe and rewarding option for parents and students, these extreme cases need to be taken seriously. Resources need to be readily available, and anyone found to have abused a child should be held accountable. Those who support homeschooling should also support reforms that make homeschooling safer for everyone.

In addition, more research needs to be conducted on unstructured homeschooling, perhaps using a more holistic measuring tool since standardized tests are known to be problematic. Parents who are deciding how to educate their children should have access to accurate information about child development and learning. If total freedom is not the best option for children, parents should be encouraged to seek alternative methods of homeschooling. The bottom line is that parents have a great deal of influence on their children's learning, whether that learning is done in a traditional school or at home. Hovde (2013) said, "better scores should be expected when parents are so involved in a child's education. I'd argue that parent involvement is the primary factor for student success in any educational venue” (para. 15). In her interview with Concordia University (2012), Martin-Chang went even further, suggesting that public school teachers and parents can create the same benefits as homeschooling in traditional classrooms by investing time in individual students and creating choice in the classroom. True changes to public school classrooms will likely require other educational reforms, but the point is that the learning environment is more important than the actual venue. Still, as public schools work and sometimes struggle to meet the needs of individual children, ensuring quality homeschooling experiences should be a priority in the state of Oregon and elsewhere.

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Concordia University. (2012, November 6). *Are home-schooled children smarter?* [Video]. YouTube. https://www.youtube.com/watch?v=AGp4KFLuQNc

Hovde, E. (2013, January 5). Sorting out the truth and myth in home schooling. *The Oregonian*. https://www.oregonlive.com/hovde/2013/01/elizabeth_hovde_sorting_out_th.html

Joyce, K. (2013). *The homeschool apostates*. The American Prospect Longform. http://prospect.org/article/homeschool-apostates

Martin-Chang, S., Gould, O. N., & Meuse, R. E. (2011). The impact of schooling on academic achievement: Evidence from homeschooled and traditionally schooled students. *Canadian Journal of Behavioural Science, 43*(3), 195–202. http://doi.org/10.1037/a0022697

What is your overall impression of this essay? What do you think of its argument and tone? Do you think it is persuasive? Provide rationales for your responses.

What elements did you identify in the essay's conclusion? What functions do these elements serve?

What do you think about this essay's title? Can you make any suggestions to help the writer improve it? In addition, as a reader, what organizing/formatting feature might help you navigate the essay?

As you gather your thoughts and evidence for a researched argument essay, it may be useful to record your ideas on a graphic organizer, such as the one in Table 2, to make connections between your thesis, claims, evidence, reasons, and associated counterclaims, evidence, and reasons. Cells can be added to the table as needed to accommodate additional items.

Table 2. A graphic organizer for planning a researched argument essay

My Research Question(s):		
My Thesis Statement:		
My First Claim:	My Evidence:	My Reason:
Counterclaim:	Counter-Evidence:	Counter-Reason:
My Second Claim:	My Evidence:	My Reason:
Counterclaim:	Counter-Evidence:	Counter-Reason:
My Third Claim:	My Evidence:	My Reason:
Counterclaim:	Counter-Evidence:	Counter-Reason:

A graphic organizer like the one in Table 2 can help highlight gaps in your work so you know how to proceed with your assignment.

What might cause an argument to fail?

By extracting meaning from the above graphic organizer and adapting information from Zickel (2018, p. 149), we can say that a thesis, claims, and reasons drive a sound argument, and quality evidence—that which is accurate, sufficient, relevant, complete, current, and credible—supports its development. On the other hand, an argument may falter when readers do not accept its evidence. Zickel (pp. 149-150) explains why that might happen.

- The evidence is inaccurate. The writer has either misinterpreted or misquoted evidence.
- The evidence is insufficient. Although the writer has used a small piece of evidence to support his/her reasoning, the paper needs more.
- The evidence is unrelated to the reason. In other words, the evidence does not clearly or directly relate to the point the writer is trying to make.
- The evidence is incomplete or is too narrowly chosen. The writer has selected certain examples or pieces of information to the exclusion of others, so while the writer does present evidence to support points, he/she also neglects other information.
- The evidence is old. The information is not relevant anymore because it is outdated.
- The evidence does not come from an authoritative source. Either the source of the evidence is not credible or the person cited is not an authority on the topic.

These evidentiary issues can result in a failed argument—one that does not succeed in its purpose by compelling readers.

In addition to the issues Zickel discusses, evidence can also fail to persuade if a writer simply strings it together without explaining it, pointing out its relationship to surrounding text in a paragraph, or connecting it to claims and reasons. Klassen and Robinson (2010, p. 1) provide an example to illustrate this type of evidence fault.

Kimmel (1990) pointed out that, "Socioeconomic status, ethnic origin, intelligence, gender, and race tend to operate in complex…ways to limit the range of occupations open to an individual" (p. 293). He explained that "educational background, contacts with a particular occupation through one's ethnic or religious groups and family members, and discrimination operate for or against an individual's movement into an occupation" (p. 293). He concluded that "the boundaries thus created are often unfair to particular groups of people (notably African Americans, Hispanics, and the poor)" (p. 294).

This patchwork of quotations tells readers nothing about how the source material relates to the writer's own thoughts. Juxtapose it with another sample, adapted from Klassen and Robinson

(2010, p. 2), that uses the quotation sandwich approach to contextualize source information for readers.

> Regardless of socioeconomic background, parental involvement in a child's education correlates with academic success. Indeed, Moss and Rutledge (1991) discovered in an analysis of Ontario schools that although family background is indirectly linked to students' academic performance, "It is not the home that is the cause of some children's lack of success in school, but rather it is…the lack of connection between home and school" (p. 141). The implication is that parents who find ways to be involved in their children's education, for example by taking them to school, having regular contact with their teachers, and helping them with homework, will increase the chances of their children succeeding in school.

Writer introduces the quotation

Writer provides the quotation

Writer comments on the quotation

When writing a researched argument essay, use the sandwiching approach with quotations, paraphrases, and summaries to establish connections between source material and your own ideas.

Evidence in a researched argument essay must also be ethically sourced, meaning it should be accurately quoted or sufficiently paraphrased or summarized, as well as cited and referenced. When evidence fails to adhere to these standards, it no longer provides solid support for an argument. To reinforce this idea, review the multipage handout in Figure 5, which has been produced by the Board of Regents of the University of Wisconsin System (n.d.). The handout lists original source material, incidences of plagiarism involving use of the material, and APA citations and references for the material.

Plagiarism & Attribution
APA Style Citation

APA style uses parenthetical citations and a list of references at the end of the document.

Original Source	Plagiarism	Correct way to cite in APA
This study shows that patients' satisfaction with the information, continuity and care offered by healthcare professionals can be improved by training staff in patient-centered communication, even when implemented in clinical practice.	Patients' satisfaction with the information, continuity and care offered by healthcare professionals can be improved by training staff in patient-centered communication, even when implemented in clinical practice. *Direct copy and paste/no attribution.*	"[P]atients' satisfaction with the information, continuity and care offered by healthcare professionals can be improved by training staff in patient-centered communication, even when implemented in clinical practice"(Norgaard, Kofoed, Kyvik, & Ammentrop, 2012, p. 703).
The use of patient surveys involves the risk that patients are reluctant to be critical when they are still in care or treatment; they might see themselves in a position of dependency on the health care staff they are evaluating (40.)	Patients may not give honest feedback on surveys when they are still receiving treatment or therapy. *Paraphrase without attribution.*	Patients may not give honest feedback on surveys when they are still receiving treatment or therapy (Norgaard et al., 2012, p.699).
This study shows that patients' satisfaction with the information, continuity and care offered by healthcare professionals can be improved by training staff in patient centered communication, even when implemented in clinical practice.	Patients' satisfaction of the information, continuity and care offered by healthcare professionals can be increased by training staff in patient centered communication, even when applied in clinical practice (Norgaard et al., 2012). *Too many of the author's words are being used. It needs to either be properly paraphrased or used as a direct quote with quotation marks.*	Overall patient satisfaction can be improved when health care professionals receive patient centered communication training (Norgaard et al., 2012). OR "[P]atients' satisfaction with the information, continuity and care offered by healthcare professionals can be improved by training staff in patient-centered communication, even when implemented in clinical practice"(Norgaard et al., 2012, p. 703).

For us to derive maximum benefit from the financial input we make in health, we must strengthen health systems.	Some argue that "[f]or us to derive maximum benefit from the financial input we make in health, we must strengthen health systems." (https://ezproxy.lib.uwm.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,uid&db=hch&AN=48014336&site=ehost-live&scope=site) ⊘ *A link does not constitute proper citation. Links can break over time.*	Ramsammy argues that "[f]or us to derive maximum benefit from the financial input we make in health, we must strengthen health systems" (2010, p.132).
From Joseph: Ensuring that enough health care professionals are available, addressing the supply side, and ensuring the proper mix and distribution for this supply, are real challenges that face Ministers of Health and Health Ministries around the world. From Ransammy: The implications are that IPE does not require large classroom-based activities to be successful.	In conclusion, ensuring that enough health care professionals are available, addressing the supply side, and ensuring the proper mix and distribution for this supply, are real challenges. The implications are that IPE does not require large classroom-based activities to be successful. ⊘ *Mix and Match: multiple sources patch-worked together without attribution.*	Interprofessional education is a vital step in training the quantity and kinds of health professionals the world needs, (Ramsammy, 2010) and effective IPE training doesn't have to take place in a classroom (Joseph, et al., 2012).
For us to derive maximum benefit from the financial input we make in health, we must strengthen health systems. These must not be another set of buzz words. Strengthening health systems must be a bread and butter issue for Ministers of Health, for our training institutions and for our health care professionals.	Strengthening health systems must not be another set of buzz words. For us to derive maximum benefit from the financial input we make in health, strengthening health systems must be our bread and butter issue. ⊘ *It is unclear where author's ideas begin and end. No citation provided.*	Strengthening health systems has to be a top priority for health professionals at all levels in order to put the financial resources we have to best use (Ramsammy, 2010).

Plagiarism & Attribution
APA Style Citation

References

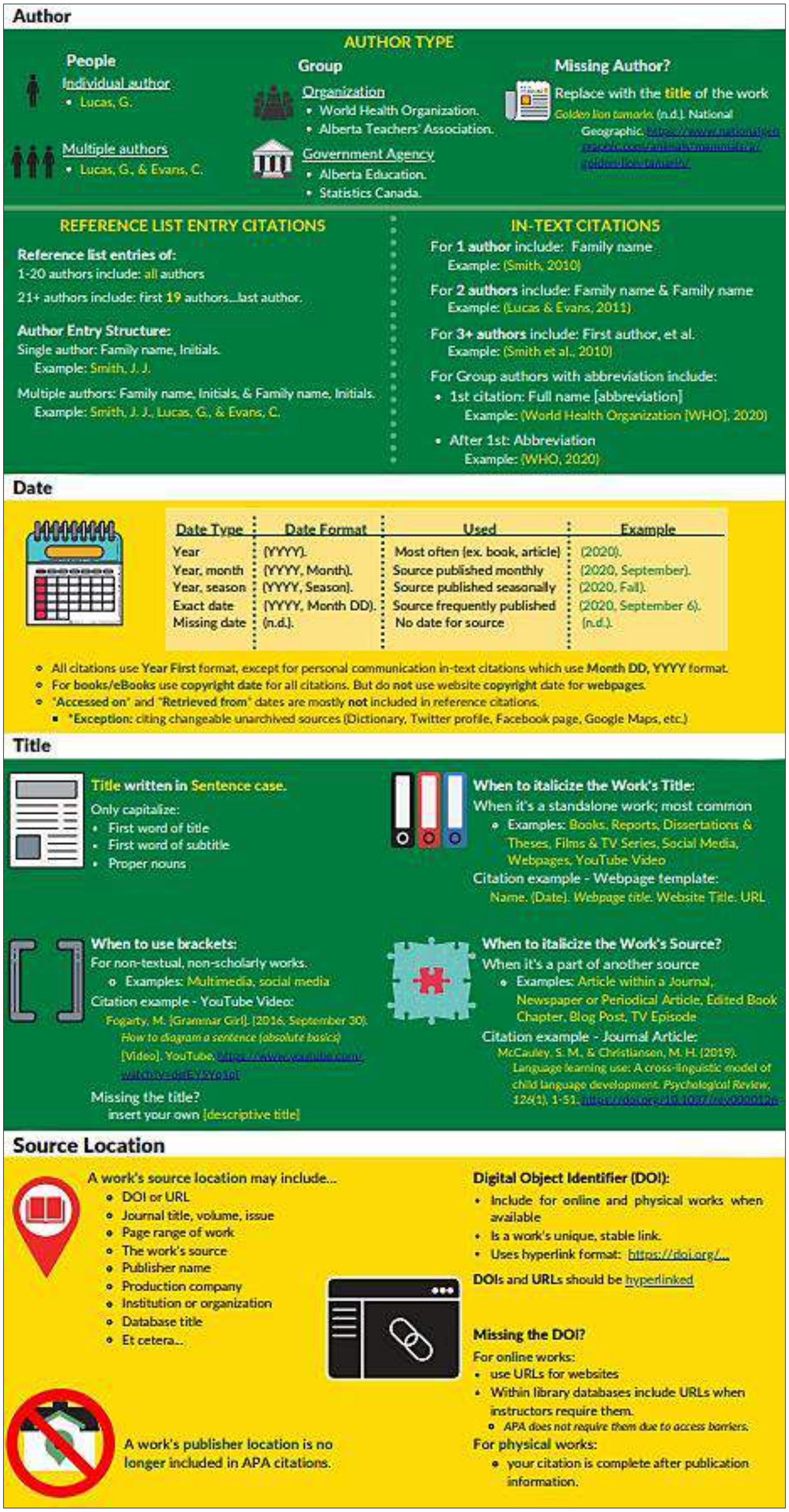
Joseph S., Diack L., Garton, F., & Haxton, J. (2012). Interprofessional education in practice. *The Clinical Teacher, 9*, 27-31.

Norgaard, B., Kofoed, P. E., Kyvik, K. O., & Ammentorp, J. (2012). Communication skills training for health care professionals improves the adult orthopaedic patient's experience of quality care. *Scandinavian Journal of Caring Sciences, 26*(4), 698-704.

Ramsammy, L. Interprofessional education and collaborative practice. *Journal of Interprofessional Care*, 24(2), 131-138.

Figure 5. Flaws in ethical source use

As Figure 5 indicates, flaws in ethical source use can be caused by plagiarism and inaccurate or missing source attribution. Now review Figure 6, adapted from the University of Alberta Library (n.d.), and decide how to update the citations and references listed in Figure 5 so they reflect APA seventh edition style as detailed on the infographic. If you prefer to look at an expanded version of the seventh edition style guidelines, refer to the “Reporting Research Outcomes” chapter of this textbook.



Author
AUTHOR TYPE
People
Individual author
• Lucas, G.
Multiple authors
• Lucas, G., & Evans, C.
Group
Organization
• World Health Organization.
• Alberta Teachers' Association.
Government Agency
• Alberta Education.
• Statistics Canada.
Missing Author?
Replace with the title of the work
Golden lion tamarin. (n.d.). National Geographic. https://www.nationalgeographic.com/animals/mammals/g/golden-lion-tamarin/
REFERENCE LIST ENTRY CITATIONS
Reference list entries of:
1-20 authors include: all authors
21+ authors include: first 19 authors...last author.
Author Entry Structure:
Single author: Family name, Initials.
Example: Smith, J. J.
Multiple authors: Family name, Initials, & Family name, Initials.
Example: Smith, J. J., Lucas, G., & Evans, C.
IN-TEXT CITATIONS
For 1 author include: Family name
Example: (Smith, 2010)
For 2 authors include: Family name & Family name
Example: (Lucas & Evans, 2011)
For 3+ authors include: First author, et al.
Example: (Smith et al., 2010)
For Group authors with abbreviation include:
• 1st citation: Full name [abbreviation]
Example: (World Health Organization [WHO], 2020)
• After 1st: Abbreviation
Example: (WHO, 2020)
Date
Date Type | Date Format | Used | Example
Year | (YYYY). | Most often (ex. book, article) | (2020).
Year, month | (YYYY, Month). | Source published monthly | (2020, September).
Year, season | (YYYY, Season). | Source published seasonally | (2020, Fall).
Exact date | (YYYY, Month DD). | Source frequently published | (2020, September 6).
Missing date | (n.d.). | No date for source | (n.d.).
• All citations use Year First format, except for personal communication in-text citations which use Month DD, YYYY format.
• For books/eBooks use copyright date for all citations. But do not use website copyright date for webpages.
• "Accessed on" and "Retrieved from" dates are mostly not included in reference citations.
▪ *Exception: citing changeable unarchived sources (Dictionary, Twitter profile, Facebook page, Google Maps, etc.)
Title
Title written in Sentence case.
Only capitalize:
• First word of title
• First word of subtitle
• Proper nouns
When to italicize the Work's Title:
When it's a standalone work; most common
• Examples: Books, Reports, Dissertations & Theses, Films & TV Series, Social Media, Webpages, YouTube Video
Citation example - Webpage template:
Name. (Date). Webpage title. Website Title. URL
When to use brackets:
For non-textual, non-scholarly works.
• Examples: Multimedia, social media
Citation example - YouTube Video:
Fogarty, M. [Grammar Girl]. (2016, September 30). How to diagram a sentence (absolute basics) [Video]. YouTube. https://www.youtube.com/watch?v=deEY5Yo1ol
Missing the title?
insert your own [descriptive title]
When to italicize the Work's Source?
When it's a part of another source
• Examples: Article within a Journal, Newspaper or Periodical Article, Edited Book Chapter, Blog Post, TV Episode
Citation example - Journal Article:
McCauley, S. M., & Christiansen, M. H. (2019). Language learning use: A cross-linguistic model of child language development. Psychological Review, 126(1), 1-51. https://doi.org/10.1037/rev0000126
Source Location
A work's source location may include...
• DOI or URL
• Journal title, volume, issue
• Page range of work
• The work's source
• Publisher name
• Production company
• Institution or organization
• Database title
• Et cetera...
A work's publisher location is no longer included in APA citations.
Digital Object Identifier (DOI):
• Include for online and physical works when available
• Is a work's unique, stable link.
• Uses hyperlink format: https://doi.org/...
DOIs and URLs should be hyperlinked
Missing the DOI?
For online works:
• use URLs for websites
• Within library databases include URLs when instructors require them.
• APA does not require them due to access barriers.
For physical works:
• your citation is complete after publication information.

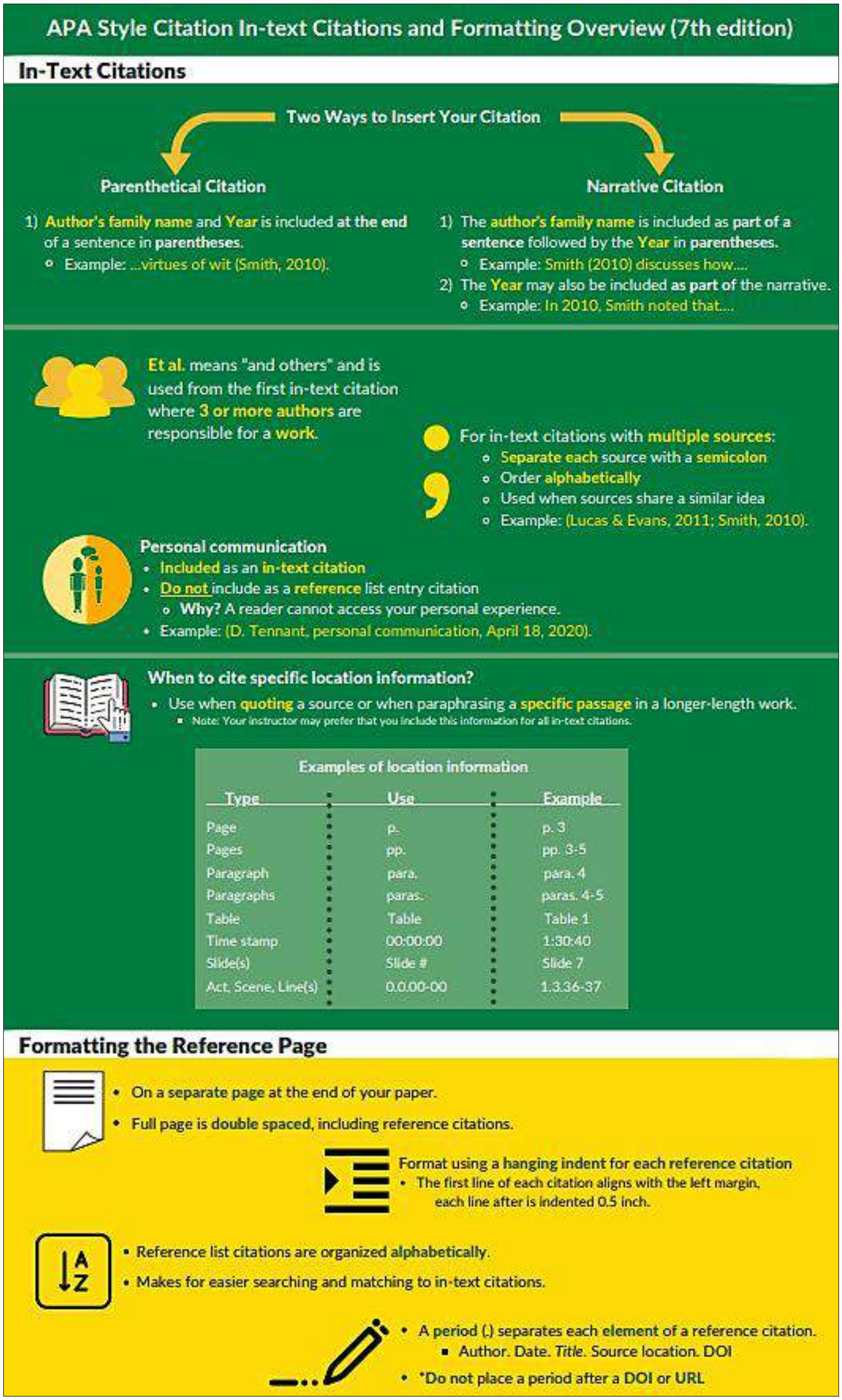


Figure 6. APA style guidelines (7th edition)

You can also use the infographic in Figure 6 to ensure your own papers align with APA seventh edition style.

Chapter Conclusion

We will draw this chapter to a close by reiterating a few of its key takeaways. Writers of effective researched arguments do the following:

- Narrow the focus and scope of their central arguments so they can adequately explain them in their essays.
- Make balanced cases about the topics they research.
- Adjust the strength of their claims as appropriate.
- Discuss their claims, evidence, reasons, and associated counterclaims, evidence, and reasons to fully develop the arguments conveyed in their thesis statements.
- Use convincing and credible evidence, and integrate it logically and ethically into their papers.
- Provide accurate in-text citations and accompanying reference list entries for the sources they use.

Use this guidance when composing your own researched argument essays to ensure they are maximally compelling.

Activity A: Explore Modes of Persuasion

Read the following information about modes of persuasion in arguments, adapted from the Excelsior Online Writing Lab (2020b, "Modes of Persuasion").

> Over 2,000 years ago, a famous Greek teacher, scientist, and philosopher, Aristotle, taught his students that there were three basic ways of convincing an audience of something—or at least getting an audience to listen—and we still use these concepts today. You will often hear ethos, pathos, and logos referred to as the three modes of persuasion. Having an awareness of how to communicate convincingly using these modes will help you as you write argumentative essays.
>
> **Ethos**
>
> *Ethos* is the ethical appeal; writers use this appeal to convince readers of their credibility. Some credibility can be, in a way, built-in. A person's level of education in relation to a topic may provide some built-in ethos. For example, if a psychology professor wrote an essay about the psychology of eating disorders, she would have strong, built-in ethos. But, if that same professor wrote a paper on quantum physics, her educational background would provide no built-in ethos.

If you have no built-in ethos, you can still establish credibility as you write. You can build your ethos, for example, by using credible sources and integrating them in an ethical manner. When you use expert research and opinion in your writing, you also draw on that material's ethos to foster your own ethos.

Logos

Logos is the appeal to human logic, built via use of quality information in a paper and its coherent presentation. Having strong logos is a useful way to build ethos in an essay. For example, if you are writing a research paper on the plague in Medieval times, you will want to gather a good deal of research and then incorporate that research in an organized and effective manner. You should also discuss your points in a rational, balanced manner in order to avoid common logical fallacies [these are discussed in the next activity].

Pathos

Pathos is the appeal to human emotions. As a writer, your job is to make the audience feel connected with your topic, and this is where pathos can help. Think about the broad spectrum of human emotions: sadness, humor, pity, sympathy, anger, outrage; these are all things that motivate people. Pathos provides writers a tool to get readers emotionally invested in texts.

Although pathos is a powerful means of persuasion, it can also negatively affect credibility (ethos). Some readers may perceive its use as a form of manipulation and reject it completely because they do not want to be told how to feel about a topic. Furthermore, in academic and workplace writing, arguments are generally expected to emphasize credibility and logical reasoning more than emotion, and in many fields of study, perceptible emotion should be completely left out of writing.

As this text makes clear, ethos, logos, and pathos are interconnected. When you write a researched argument, think carefully about how these modes of persuasion might work together to create a solid essay.

Now work with a partner to identify what points discussed in this chapter demonstrate evidence of the modes of persuasion in use. How does the sample researched argument essay in this chapter demonstrate evidence of the modes of persuasion in use? Create a list of these points, and be prepared to discuss them in class. How might you use the list when preparing future assignments?

Activity B: Explore Common Logical Fallacies

Read the following information about common logical fallacies in arguments, adapted from the William & Mary Writing Resources Center (2018). By definition, "A fallacy is a breakdown of logic that uses faulty or deceptive arguments to reach a flawed conclusion" (McKeever, n.d.-b, para. 1). You should aim to avoid fallacies when constructing your own arguments.

Hasty generalization:
An argument based on insufficient evidence, often caused by a sample which is too small or is not representative of the whole population.

Example: *Jack was late for his first two meetings with the professor. He must make a habit of being late.*

Post hoc ergo propter hoc:
(Literally translated as "after this, therefore because of this.") An argument that assumes that one event caused another event simply because one event occurred before the other.

Example: *Jack left a few hours ago for a job interview, and he came home frustrated and exhausted. The interview must have gone badly.*

False dilemma:
An argument that assumes there are only two options or outcomes in a situation, when there are other alternatives.

Example: *Jack finished that exam way earlier than everyone else. Either he knew all of the answers or none of them.*

***Ad hominem*:**
(Literally translated as "to the man.") An argument that attacks the person who is making an argument rather than actually opposing the argument.

Example: *When Jack suggested to his group project partner that her idea might not be feasible, she ignored his reasoning and accused him of being overly controlling.*

Red herring:
A fallacy that diverts a discussion from the main argument by changing the subject or bringing up irrelevant points.

Example: *While writing a paper late at night, Jack hit a wall. In order to reach the minimum word count, he included a largely unnecessary summary of historical context, hoping that it would seem relevant.*

Slippery slope:
An argument based on the assumption that if one event occurs, a chain of other events will also occur, leading to an extreme (and usually undesirable) conclusion.

Example: *If Jack doesn't turn in that paper tomorrow, he will receive a low grade, and then he will do poorly in the class. His GPA will suffer, he won't get into grad school, and he'll never achieve his dreams.*

Now work a partner to find an example of one of the fallacies in the news or in an advertisement; your instructor will ask different teams to focus on different fallacies. If you are unable to locate an authentic example, try to create one of your own. Be prepared to report back to the class about what your team did. How might this exercise help you avoid logical fallacies in your own writing?

Homework: Write a Researched Argument Essay

Identify a topic of inquiry you can explore via means of a researched argument essay. Your instructor may assign you a topic or ask you to select one. Research the topic by locating and reading sources about it. Afterwards, compose your essay using the guidelines presented in this chapter. Remember to cite and reference all outside sources you use in the paper.

You might begin exploring what you know about a particular debatable topic by using listing or mind mapping, two brainstorming processes. Here are descriptions of these processes.

<u>Listing</u>

1. Take out a clean piece of paper and a pen.
2. List everything that immediately comes to mind about a possible research topic.
3. Review your list while looking for connections among its points.
4. Decide whether any of those connections can be pursued through research.

Here is an example of a list focused on the topic of ebook readers, adapted from Pantuso et al. (2019, pp. 5.20-5.21).

- Ebook readers are changing the way people read.
- Ebook readers make books easy to access and carry.
- Books can be downloaded electronically.
- Devices can store hundreds of books in memory.
- The market expands as a variety of companies enter it.
- Booksellers sell their own ebook readers.
- Electronics and computer companies also sell ebook readers.
- Current ebook readers have significant limitations.
- The devices are owned by different brands and may not be compatible.
- Few programs duplicate the way people borrow and read printed books.

<u>Mind Mapping</u>

1. Take out a clean piece of paper and a pen.
2. Write your possible research topic in the center of the page and circle it.
3. Write ideas associated with this topic in smaller circles around the main topic.
4. Connect the smaller circles to the main topic with lines.

5. Write ideas associated with the smaller circles around those items.
6. Connect those ideas to the smaller circles with lines.
7. Decide whether any of the connections can be pursued through research.

Here is an example of a mind map focused on the topic of ebook readers, adapted from Pantuso et al. (2019, pp. 5.20-5.21).

Once you have brainstormed ideas for your paper, researched your topic, and composed your text, use the following handout, produced by the Excelsior Online Writing Lab Writing (2020c), to revise your essay so that it is clear, concise, coherent, complete, and correct.

Revision Checklist

Excelsior Online Writing Lab

When you revise, you will want to work to "see" your writing as your audience might see it. It is important to allow some time between drafting and revision to really help you "re-see" your work with fresh eyes.

Here is a checklist to help you focus on some key issues as you revise.

Name:______________________________________

- ☐ Have I conveyed the significance of my ideas to my readers? Is my purpose clear?
- ☐ Does my essay meet the requirements of my assignment?
- ☐ Is my focus too broad? Have I narrowed my topic well?
- ☐ Is my organization plan effective?
- ☐ Is there a way to make the concept I am discussing clearer and more focused?
- ☐ Is the voice or style I am using appropriate for my audience?
- ☐ Have I clearly defined any terms used?
- ☐ Have I considered any possible objections to my position, if I take a position in this research essay?
- ☐ Do I provide clear transitions between my ideas? Are there any gaps between my points?
- ☐ Are there any points that need further explanation or detail?
- ☐ Are there any points that need to be cut because they are not related to my focus?
- ☐ Are my sources credible? Have I addressed this credibility in my writing?
- ☐ Have I integrated my source material smoothly and effectively by providing signal phrases and/or context for this information?
- ☐ Have I put some source material in my own words as much as possible and used quotes only when necessary?
- ☐ Have I properly acknowledged all of my source material, including paraphrases and summaries?

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After you have written and revised your essay, your instructor may ask you to exchange papers with a classmate for purposes of peer review. You might use the following multipage peer review form, produced by the Excelsior Online Writing Lab (2020a), for this exercise.

C A R E S Peer Review Feedback Form

Excelsior Online Writing Lab

Perhaps the most helpful tool in developing logical, readable drafts is a peer review session. Peer Review is effective for both the writer and the reviewer. Depending on the writing assignment, adult readers will review class content, as well as strengthen vital writing and close reading skills. Writers will recognize that good writing communicates effectively with diverse readers.

To remember while viewing:

Note: The least helpful comment to receive from a peer reviewer is "It looks good to me."

- First attend to Higher Order Concerns: thesis, audience, purpose, organization, development (support)
- Then attend to Lower Order Concerns: sentence structure, punctuation, word choice, spelling
- Make comments in spirit of helpfulness. Take comments in spirit of helpfulness.

Writer: ______________________________ **Reviewer:** ______________________________

C Congratulate	What does the writer do well in this assignment? (List one or more aspects.) Also, please write the writer's main claim or focus (thesis) according to what you have read. (It may not be the last sentence of the first paragraph - the traditional place for the thesis.)
A Ask clarifying questions	What part(s) of the essay were a bit confusing? Why? What specific suggestions (3 or fewer) do you have for revising the unclear parts of this writing? *
R Request more	What would you like to know more about the topic that can enhance the essay and that supports the thesis?
E Evaluate its value	What specific detail(s) do not work with the essay (e.g. doesn't support the thesis) or can be moved within the essay?
S Summarize	Overall, what new information have you learned or how are you thinking differently after this reading?

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CARES Peer Review Feedback Form

Page 2

Excelsior Online Writing Lab

*** You may use the list below for ideas.**

(*Please identify the paragraph for your suggestion*)

- Thesis needs to better identify the main point of the essay
- Topic sentence(s) needs to identify the main point of this paragraph
- Paragraph(s) needs one overall idea (needs more specific evidence, needs more writer's commentary)
- Words: repeating words, repeating ideas, repeating sentence structure
- Using vague language, using slang, transition words needed
- Proofreading: punctuation, spelling, grammar
- Sources (if used) need to be clearly identified
- Proper intext / reference format needed

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Writing Laboratory Reports

Stacey Corbitt

Chapter Overview

As a university student, you may be starting to recognize the significance research has to your college community. Have you noticed that professors and administrators get excited about the college receiving research grants? Are professionals at your university collaborating on and celebrating journal publications? High-stakes national-level scholarships are offered to students who show promise for professional research in their fields. All of these indicators considered together point clearly to the importance of research to most institutions of higher learning. This chapter focuses practice on the basic format of college-level primary research writing – the *lab report* – and helps students to learn the technical writing practice that prepares you to make contributions to the body of knowledge within your chosen field.

Why are students required to write lab reports?

You may have noticed that when your assignments in various courses require a research report, your professors are likely to insist that you rely on peer-reviewed journal articles for evidence supporting your written arguments. If magazine articles and blog posts were acceptable sources for high school papers, why are peer-reviewed professional and academic journals a big deal in college? The reasons become clear when you understand that a research journal article represents a professional-level version of the *lab report*. Consider the following list, adapted from the University of Toronto Mississauga Robert Gillespie Academic Skills Centre Writing Resources (n.d.), identifying ways lab reports inform academic pursuits. Lab reports

- communicate the results and importance of an experiment
- allow others to replicate the experiment and apply the scientific processes involved
- deepen students' knowledge of course material through application and analysis
- communicate relevant theories, phenomena, and procedures
- follow the overall style of scientific writing
- demonstrate your understanding of course content

For students pursuing research as a means of developing deeper knowledge and expert skills in their field, lab reports provide the standard deliverable from scientific exploration in a form that demonstrates the students' mastery. For professional practitioners in a field, lab reports elevate and expand to the form of research articles that may be peer-reviewed and published for study by other experts and student researchers. In either case, the larger goal of writing about research you have conducted is to expand the scholarly information available in your field of study.

What are the standard parts of a lab report?

In its "Guidelines for Writing a Lab Report," Massachusetts Institute of Technology's Laboratory Fundamentals in Biological Engineering Open Courseware site (2020) posits that "the most common elements of a scientific report, in order of presentation" are: *title; list of authors; abstract; introduction; materials and methods; results; discussion; and references.*

Activity: Take a Closer Look at the *Introduction* Section

Study the annotated sample lab report layout on the following pages, which is adapted from the University of Toronto Mississauga's Robert Gillespie Academic Skills Centre tip sheet on lab reports. Notice that the "most common elements" identified above by MIT are not all present in the sample lab report. Similarly, your assignment guidelines may require specific details that are different from this sample. Always adhere to your assignment specifications.

The Robert Gillespie
ACADEMIC SKILLS CENTRE

Eight Essential Parts of a Lab Report

Scientists write lab reports to show the results and importance of an experiment. Writing lab reports helps you make sense of the results, connect them to your course content, and communicate your findings to others. Follow this outline to structure your report. However, always refer to your assignment guidelines to ensure you are meeting your Professor's expectations.

1. Title Page

Include your name, your student number, the date, and the title of the experiment.

2. Abstract

Summarize the important parts of the lab report. Describe the:

- Purpose of the experiment
- Methods and materials
- Results
- Significance of the results

Do not include references or definitions in the abstract.

3. Introduction

Help the readers understand the background of the experiment and what you were doing through the experiment. Try answering these questions:

- What is the relevance of your experiment?
- What are the supporting theories or topics involved?
- What was the purpose of your experiment?
- How did each of the parts of your experiment help you achieve the purpose?

Read the *sample introduction* section on the next page and respond to the questions that follow. Note that it is not necessary for you to be familiar with the field of molecular biology to respond to the questions.

Sample Introduction

This example highlights the general format of an introduction. The comments identify each of the introduction's key parts.

Western blotting is often used in molecular biology to identify the presence of proteins based on their size and affinity to specific antibodies. In this experiment, the identities of various animal samples were determined through a Western blot comparison of myosin light chain specimens. By comparing the experimentally determined protein sizes to a database of known proteins and their origins, the identities of the samples were found.

Commented [RGASC1]: The first sentence identifies **a key technique and its relevance** to Biology.

Commented [RGASC2]: The second sentence states the **purpose of the experiment**.

Commented [RGASC3]: The third sentence explains **how the purpose of the experiment was achieved**.

4. Materials and methods

Give enough information to your readers so that they can replicate your experiment. Describe what you used and what you did in the experiment.

1

Discuss the following questions in class and respond in the space provided (or as otherwise directed by your instructor):

1. Read the *introduction* section. What terms, if any, are unfamiliar to you?
2. What is the (3-word) term for the *experimental technique* used in this lab research?
3. What information were the researchers seeking?
4. Did they find the answers they sought? How do you know?

1.	2.
3.	4.

The following excerpt is the remainder of the annotated sample lab report layout. Review and discuss the following page before responding to the additional questions that follow.

5. Results

Present your key findings and observations without analyzing them. Describe your results using sentences and include tables, figures, and graphs. Make sure that you include captions for your tables, figures, and graphs.

Write captions above tables:

Table 1: Average participant heart rates

Condition	Heart rate (bpm)
Rest	66
Walking	70
Running	80

Write captions below figures/graphs:

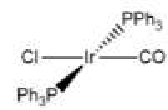

Figure 1: Structure of Vaska's complex

If you have calculations, you can show one full calculation and put the rest of the values in a table.

6. Discussion

Analyze and interpret your results. You can compare your results to theory, literature values, and other experimental work. Try answering these questions:

- ❑ What were the expected results and how do they connect to relevant theories?
- ❑ How do your results to what was expected? Why are there differences?
- ❑ What were sources of error or limitations in the experimental design? How did these affect your results and how can you minimize these errors in the future?

7. Conclusion

State your key findings from the experiment and mention any limitations or suggestions to improve the experiment.

8. References

Provide citations for any information that is not your own. Make sure that you include in-text citations. Use the citation style that your Professor requests.

Instructions sometimes differentiate between the *Materials and Methods* section (4. in the document above on the previous page); and the *Results* section (5. in the sample document) of a lab report by saying that

- *Materials and Methods* describes what you did and what you used to do it
- *Results* describes what you found by doing it

The point of making such a differentiation between the two sections is that beginning technical writers sometimes combine elements of the two sections in the writing process, costing the lab report significantly in terms of clarity. To be clear, separate the “what I used and what I did” explanation distinctly from the “what I found” description.

- Finally, the *Discussion* or *Analysis* section contains the interpretation of results obtained in the laboratory or other experimental work. Similar to the clear separation you must make between *Materials and Methods* and *Results*, the discussion or analysis occupies its own major section of a lab report.

Consider the following organizational pattern, which is further discussed in the “Reporting Research Outcomes” chapter of this textbook, in terms of how the body of a lab report is organized.

I	***Introduction***: answers the questions • what is the purpose and relevance of your lab work? • what background and theories are in play?
M	***Materials and Methods***: answers the questions • What did you use in the lab? • How did you complete the work?
R	***Results***: answers the question • What did you find out from the lab work?
A	**and**
D	***Discussion***: answers the questions • What do the results mean? • What should the next research focus be?

Practice: Examine a Published Lab Report

Study the research article, which contains a lab report, on the following pages. The complete article was published under a Creative Commons license (CC-BY-4.0) in the *International Journal of Fisheries and Aquaculture* (2020). Note the various essential sections of the lab report, recognizable by the headings placed as signposts in the document. The example follows the IMRaD organizational pattern. A complete copy of the article may be downloaded here.

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ACADEMIC JOURNALS

International Journal of Fisheries and Aquaculture

Full Length Research Paper

Use of different colours of vertically-suspended structure during the hatchery rearing of juvenile landlocked fall Chinook salmon (*Oncorhynchus tshawytscha,* Walbaum)

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This study investigated the effects of coloured structures on the growth of juvenile landlocked fall Chinook salmon (*Oncorhynchus tshawytscha*, Walbaum) during hatchery rearing. Structures consisted of an array of four aluminum angles painted one of four colours: Silver, red, black and green, which were vertically-suspended in circular tanks. After 25 days, mean total lengths and weights of individual salmon reared in tanks with the green arrays were significantly ($P < 0.05$) larger than those reared with silver, red or black arrays. Condition factor was not significantly different ($P > 0.05$) among the colour treatments. Final total tank biomass and gain were also not significantly different ($P > 0.05$) among the colour treatments. The results of this study indicate that structural colours could be considered to maximize juvenile Chinook salmon growth during hatchery rearing.

Key words: Chinook salmon, colour, *Oncorhynchus tshawytscha*, hatchery rearing.

INTRODUCTION

Relatively little is known about the impacts of colour on cultured fish. The colours used during hatchery rearing may affect feed intake, growth, aggression, stress response and body colouration (Volpato and Bareto, 2001; Strand et al., 2007; Qin et al., 2012; Eslamloo et al., 2015; Gaffney et al., 2016; Ghavidel et al., 2019). However, the effects of specific colours are not universal among species. For example, blue light was found to reduce stress in Nile tilapia (*Oreochromis niloticus*) (Volpato and Bareto, 2001) but increase stress in rainbow trout (*Oncorhynchus mykiss*) (Karakatsouli et al., 2007). African catfish (*Heterobrachus bidorsalis*) growth improved in black tanks (Solomon and Ezigbo, 2018), but black had no impact on the growth of river catfish (*Pangasius hypophthalmus*) (Mat et al., 2019). Color preferences in fish may also change over time (Ullmann et al., 2011).

Colour and substrate interact to influence the hatchery rearing performance of gilthead seabream (*Sparus aurata*). In particular, blue and red-brown substrate

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Table 1. CIELAB color space digital colour values for the tank and painted arrays. L* is the black to white component, a* is the green-red component, and b* is the blue-yellow component.

Colour	L	a*	b*
Tank: Turquoise-Green	50.41	-46.19	1.35
Array: Silver	71.48	-1.92	2.01
Red	31.89	49.84	26.27
Black	9.14	-0.99	1.18
Green	26.54	-23.39	12.57

improved fish growth and reduced aggression compared to green substrate or no substrate at all (Batzina and Karakatsouli, 2012, 2014a, b). In a study comparing blue substrate, a photo of blue substrate, and a plain control, Batzina and Karakatsouli (2014b) observed positive effects on growth from only the blue substrate; the blue colour (photo of blue substrate) was not enough to produce the improvements caused by the substrate itself. Thus, interaction between colour and substrate determines effectiveness.

Vertically-suspended structure is a relatively new form of environmental enrichment. Most studies evaluating vertically-suspended structure have used unpainted aluminum angles, unpainted aluminum rods, or light grey polyvinyl chloride electrical conduit (Kientz and Barnes, 2016; Krebs et al., 2018; White et al., 2018, 2019; Jones et al., 2019). However, strings of randomly coloured spheres were used by Kientz et al. (2018) and Crank et al. (2019), which produced dramatic improvements in weight gain and feed conversion ratio in rainbow trout in comparison to those trout reared in barren tanks. While the focus of these studies was the structures themselves, both studies suggest that colour may have helped to maximize the benefits of vertically-suspended structures. The effects of colour in combination with vertically-suspended structures on fish rearing performance are unknown. In addition, the effects of colour in general during the rearing of landlocked fall Chinook salmon (*Oncorhynchus tshawytscha*, Walbaum) are also unknown. Thus, the objective of this study is to evaluate the effects of different coloured vertically-suspended arrays on landlocked juvenile Chinook salmon growth and feed conversion.

MATERIALS AND METHODS

Experimental design

A 25-day experiment was conducted at McNenny State Fish Hatchery, Spearfish, South Dakota, USA, using well water at a constant temperature of 11°C [water hardness as $CaCO_3$ = 360 mg/L, alkalinity as $CaCO_3$ = 210 mg/L, pH = 7.6, total dissolved solids = 390 mg/L using standard methods described by Federation et al. (2005)]. Water temperature did not vary because it originated from 100-m deep wells. On May 3, 2019, approximately 25,000 juvenile landlocked Chinook salmon originating from feral stock from Lake Oahe, South Dakota, USA (mean (± SE) length = 105 ± 3 mm, mean (± SE) weight = 12.3 ± 0.6 g, N = 30) were divided evenly into 12 turquoise-green circular tanks (diameter = 1.8 m, height = 0.8 m, water depth = 0.6 m). Each tank initially received 25.7 kg of fish (approximately 2,084 fish). The tanks were near-fully covered by corrugated black plastic overhead covers, with only 0.1 lux of light entering the tank (Walker et al., 2016). Each tank also had an array of four aluminum angles (each angle side 2.5 cm wide, 57.15 cm long), suspended from the overhead covers as described by Krebs et al. (2018). Water flows were set to maintain dissolved oxygen levels above 7 mg/L to eliminate any potential effects of relatively low oxygen levels on fish growth (Mallya, 2007) and also to maintain circular tank hydraulic self-cleaning. Substantial turbulence was only observed near the spray bar where water entered the tank.

Colours

The four angles of the array were all of the same colour in each tank. In addition to the unpainted aluminum (silver colour), the other colour treatments were safety red, semi-gloss black, or hunter green. Treatments were randomly assigned with each coloured-array replicated in three tanks (12 total tanks with three tanks per colour). The red array was created by painting the angles with Occupational Safety and Health Administration standard coloured spray paint (Krylon, Krylon Products Group, Cleveland, Ohio, USA). The black and green arrays were created by spray painting the angles with gloss enamel (Rust-oleum, Rust-oleum Corporation, Illinois, USA). Digital colour values were obtained using a MiniScan XE Plus spectrophotometer (HunterLab, Reston, Virginia, USA) and are listed in Table 1.

Feeding

All fish were fed 1.0 mm BioVita (BioOregon, Longview, Washington, USA) daily using automatic feeders. Aliquots of feed were dispensed for one minute at 20-minute intervals over eight hours each day. The hatchery constant method (Buterbaugh and Willoughby, 1967) was used to determine feeding rates with a projected growth rate of 0.07 cm/day and a planned feed conversion ratio of 1.1. Any mortality were removed and counted daily.

Data collection

At the end of the experiment, five randomly sampled individual fish from each tank were both weighed to the nearest 0.1 g and total length measured to the nearest 1.0 mm. In addition, total tank weights were obtained to the nearest 0.2 kg using an Intercomp CS200 hanging scale (Medina, Minnesota, USA). The following equations were used (Piper et al., 1982):

Total weight gain = final tank weight – initial tank weight.

Feed conversion ratio (FCR) = total feed fed to tank / total tank

Table 2. Mean ± SE individual fish total lengths, weights and condition factors (K[a]) for Chinook salmon reared with different coloured enrichment structures. Means in a row with different letters are significantly different (P < 0.05, N = 3).

Colour	Silver	Red	Black	Green	P
Length (mm)	118 ± 1 z	117 ± 3 z	115 ± 1 z	126 ± 2 y	0.034
Weight (g)	16.4 ± 0.7 z	15.7 ± 1.1 z	15.1 ± 0.6 z	20.7 ± 0.7 y	0.004
K	0.99 ± 0.02	0.98 ± 0.02	0.98 ± 0.03	1.05 ± 0.03	0.201

[a]K = 10^5 x [individual weight / (body length^3)]

Table 3. Mean ± SE tank total weights, gain, food fed, and feed conversion ratios (FCR[a]) for Chinook salmon reared with different coloured enrichment structures (N = 3).

Variable	Silver	Red	Black	Green	P
Initial weight (kg)	25.7	25.7	25.7	25.7	
Food Fed (kg)	14.7	14.7	14.7	14.7	
Final weight (kg)	37.0 ± 0.6	35.8 ± 0.4	38.2 ± 0.2	37.8 ± 1.7	0.343
Gain (kg)	11.3 ± 1.7	10.1 ± 0.4	12.5 ± 0.2	12.1 ± 0.5	0.343
FCR	1.30 +/- 0.06	1.45 +/- 0.05	1.18 +/- 0.01	1.21 +/- 0.15	0.240
Mortality (%)	0.08 ± 0.03	0.85 ± 0.45	0.06 ± 0.04	0.08 ± 0.02	0.100

[a] FCR = total food fed / tank gain.

weight gain.
Condition factor (K) = 10^5 × [weight / (body length)^3].
Mortality (%) = 100 × (number of fish that died in a tank / initial number of fish in a tank).

Statistical analysis

One-way Analysis of Variance (ANOVA) was used to analyze the data with the SPSS (version 24.0) statistical analysis program (IBM Corporation, Chicago, Illinois, USA). Because the tanks were the experimental units, not individual fish, nested ANOVA was conducted on the individual fish data. If the ANOVA indicated significant differences, Fisher's Protected Least Significant Difference procedure was used for pair-wise comparisons. Significance was pre-determined at P < 0.05.

RESULTS

Individual fish length and weight were significantly different among the colour treatments (Table 2). Individual salmon reared with the green angles were significantly heavier and longer than those reared in any of the other colour treatments. There was no significant difference in condition factor among the treatments. Total tank ending biomass, gain, and feed conversion ratio were not significantly different among the coloured angle treatments (Table 3). Percent mortality was low and not significantly different among the treatments. However, the mortality of 1.7% in one of the tanks containing the red angles was an outlier.

DISCUSSION

The positive impact of green vertically-suspended structures on individual salmon growth after the relatively short time period of only 25 days was somewhat surprising. However, these results are supported by Luchiari and Pirhonen (2008), who observed that rainbow trout preferred green environments over those that were white, blue, yellow, or red. They also noted that the trout reared in green environments were significantly larger after 42 days. This preference could be due to the predominance of blue visual pigment cones in juvenile Chinook salmon (Flamarique, 2005), which would align most closely with the green colour used in this study. Unfortunately, blue-coloured angles were not included in this study for comparison. Ullmann et al. (2011) also described an inherent green colour preference in barramundi (*Lates calcarifer*).

Interestingly, Luchiari and Pirhonen (2008) noted that trout preference for green was temperature dependent, with rainbow trout preferring green at water temperatures of 12°C, but shifting their preference to blue at 1°C. The green colour preference for Chinook salmon in this study was obtained using 11°C water; lower temperatures were not investigated. Colour preferences in fish may not only be influenced by temperature, but also by long term exposure to different colours (Ullmann et al., 2011). It is also possible that salmon color preferences may change seasonally and with developmental stage (Beatty, 1966; Flamarique, 2005).

In contrast to the results of this study with Chinook salmon, Karakatsouli et al. (2007, 2008) reported that red light improved rainbow trout length. The red angles in the present study were associated with significantly shorter salmon in comparison to green angles. These differing results may be due to how the colour was applied (light versus structure), or the saturation of colour in the rearing environment. The red arrays presented a relatively small area of colour, whereas a red-light source would produce a much more intense colouration.

Papoutsoglou et al., (2005) observed that rainbow trout growth was reduced during rearing in black tanks. Lighter coloured tanks have been associated with increased growth, likely because feed detection is improved due to feed-background contrast (Tamazouzt et al., 2000; Papoutsoglou et al., 2005; Karakatsouli et al., 2007, 2008; Strand et al., 2007; McLean et al., 2008; Üstündağ and Rad, 2015). Strand et al. (2007) reported that at low light intensities, feed intake was higher in lighter tanks than dark tanks, but there was no significant difference at higher light intensities. Light intensity likely does not explain the results of this study, even though the tanks were nearly completely covered. The painted surfaces of the suspended angles occupied a small area in the tank, and the high L values of the silver and red colours indicate that they were lighter than the green and black angles.

While tanks containing the green angles produced significantly larger individual salmon, the possible influence of the turquoise-green rearing tank colour on these results is unknown. Other studies examining colour during rearing have focused on tank colours, rather than suspending novel colours within an already-coloured tank (Browman and Marcotte, 1987; Papoutsoglou et al., 2005; Strand et al., 2007; Eslamloo et al., 2015; Ghavidel et al., 2019). Similarly, studies examining the colour of lighting typically use tanks that are colourless, opaque, or match the lighting colouration (Karakatsouli et al., 2007, 2008; Banan et al., 2011; Elnwishy et al., 2012; Kawamura et al., 2017). The lack of significant differences in total tank gain or feed conversion ratio in this study may be due to the relatively short duration (Weathercup and McCraken, 1999), which occurred because the fish needed to be moved to make room for additional production; the tanks of salmon were only available for 25 days. The duration of this study was shorter than the minimum study duration of 56-84 days recommended by the National Research Council (2011) for fish feeding trials. In a study by de Francesco et al. (2004) differences in rearing performance from trout fed different diets did not appear until after 84 days.

The feed conversion ratios observed in this study are typical for landlocked fall Chinook salmon from Lake Oahe (Barnes et al., 2013). The relatively high rearing densities likely affected feed conversion ratio (Piper et al., 1982; Mazur and Iwama 1993; Mazur et al., 1993; Procarione et al., 1999). Feed conversion ratios of under 1.00 with this strain of Chinook salmon fed this particular diet have only been observed using very low rearing densities (Barnes et al., 2013).

In conclusion, despite the short duration of this study, significant improvements in Chinook salmon growth were observed during rearing with green-coloured vertically-suspended structures as environmental enrichment. Longer duration trials may indicate improvements in gain or feed conversion ratio and should be conducted. Additionally, experiments involving colour and Chinook salmon rearing at different temperatures, different light intensities, or different rearing tank colours would be beneficial.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

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Activity: Analyze and Evaluate the Sample Lab Report

1. Review the abstract and address the following questions (adapted from “Eight Essential Parts of a Lab Report”):
   - What is the purpose of the experiment?
   - What materials and methods were used in the experiment?
   - What are the results of the experiment, and what is their relevance?

2. Review the introduction and address the following questions (adapted from “Eight Essential Parts of a Lab Report”):

- Does the introduction help the readers understand the background of the experiment and what researchers were doing through the experiment?
- What is the relevance of the experiment?
- What are the supporting theories or topics involved?
- What was the purpose of the experiment?
- How did each of the parts of the experiment help researchers achieve the purpose?

3. Does the materials and methods section give enough information to readers so that they can replicate the experiment? Describe what researchers used and what they did in the experiment.

4. Does the Results section present the researchers' key findings and observations without analyzing them? Describe how well you think the lab report example uses tables, figures, and graphs to present the facts only without applying any analysis. Include relevant examples from that section and cite the article as necessary.

5. The Discussion section is where the writer should analyze and interpret experimental results. Try answering these questions based on the sample lab report provided:
   - What were the expected results and how do they connect to relevant theories?
   - How do results compare to what was expected? Why are there differences?
   - What were sources of error or limitations in the experimental design? How did such limitations affect the results?

6. The Conclusion section of a lab report is where researchers can state key findings from the experiment and mention any limitations or suggestions to improve the experiment. Does the Conclusion of the lab report accomplish one or both of these tasks? Explain your answer.

Chapter Conclusion

For student researchers, lab reports may be the single most valuable writing tasks they practice. The lab report highlights multiple skills areas student writers should develop to become strong writers within their fields of expertise. This chapter aims to demonstrate the essential parts of lab reports, but also – and perhaps more critically – it offers an exploration of the skills needed to develop lab reports successfully. Completion of the exercises presented should help students see the importance of adhering to standard formats; carefully presenting detail; reporting in a straightforward factual style in *Materials and Methods* and *Results* sections, while presenting clear analysis and recommendations in *Discussion* sections; and practicing the overall style and tone of scientific writing.

Homework

Obtain and analyze the requirements for lab reports in a particular department or field of study at your university. You may use the lab report assignment specifications for a course in which you are currently enrolled, or for one you may take in the future. If you are unsure how to obtain the instructions for a lab report, consult a teaching assistant, tutor, or lab instructor.

Write a memo that introduces and explains the requirements for a well-developed lab report in the course you selected. The audience should be first-year students at your institution. In addition to providing an introduction that identifies the purpose of your memo, address the following points, as appropriate:

- Do the labs have specific policies or guidelines students must uphold as they experiment?
- Does the lab instructor use a rubric or other guideline for grading lab reports?
- What resources, guidelines, and other advice or support can you offer the readers?

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Reporting Research Outcomes

Dawn Atkinson

Chapter Overview

Much of what we are asked to do in academia and in the workplace involves *research*, which is loosely defined as systematic investigation undertaken with a goal in mind. Indeed, course research can take a wide variety of forms. In a history class, for instance, students might be tasked with researching the circumstances that contributed to a historical event. In a biology class, they might be asked to conduct a laboratory experiment to test a hypothesis. In a business course, they may be presented with a case study of a situation in a company and asked to research ways to respond to it. And in an engineering class, students may be expected to investigate the viability of a particular project or design. Workplace research projects can likewise be varied. An employee working in one organization may conduct an informational interview with someone working in another organization, for example, to determine the effectiveness of a particular product before recommending that it be purchased. A human resources professional might also survey employees to gauge their reaction to a company policy. A safety inspector, in comparison, might conduct a walk-through of a facility to review staff adherence to health and safety regulations.

Regardless of its purpose, a research project must be planned, executed, and reported with care for its findings to be valuable and useful. This chapter addresses these stages, focusing in particular on reporting research outcomes in APA-style reports.

How does an investigator begin a research project?

A research project often begins with a kernel of an idea, a thought about something that has the potential to drive further exploration. Whether the kernel is inspired by an assignment prompt, a piece of reading, a campus problem, a workplace issue, or personal curiosity, the objective is to turn the kernel into a pursuable topic for research. In broad terms, a pursuable topic is

- Manageable, meaning that it is not too broad or narrow.
- Defined in scope, meaning that its focus is delineated.
- Practicable, meaning that it can be investigated in a feasible way.

If you have the opportunity to propose an idea for a research project, also aim to identify a topic that is interesting to you to inspire momentum as you work.

Taking the above information into account, which of the following items, adapted from Reynolds Community College Libraries (2019b, “Sample Topic – Broadening Chart”; 2019c, p. 1), is a pursuable topic for a five- to seven-page research paper? Provide a rationale for your choice(s) in the space provided.

- Global warming
- Should state laws be enacted to ban texting and cellphone use while driving?
- How have government fishing regulations in the United States affected the freshwater fish population?
- What marketing strategies implemented by Publix Super Markets, Inc. have been successful in increasing the company’s sales in the Richmond, Virginia, area since it opened its location in the Short Pump Crossing Shopping Center in 2017?

The quest to identify a pursuable topic might begin with a brainstorming session to ascertain what you know about a subject, what you do not know, and what you wish to discover through research. Brainstorming techniques include the following.

- Listing all the ideas that come to mind about the topic without editing your work.
- Freewriting by noting down anything you can think of about the topic.
- Answering *who*, *what*, *when*, *where*, *why*, *how*, and *so what* questions about the topic.
- Expressing the topic as a problem and creating an outline of its causes, effects, and potential solutions.
- Writing the topic in the center of a page and grouping offshoot ideas around that topic while using lines or arrows to show how the elements are connected (mind mapping).

A brainstorming session may help you to identify areas of interest regarding a topic and narrow the focus of a broad subject area.

To determine whether a topic is pursuable, you might also explore existing research in the area. Have other investigators studied the same topic? What have they found? What methods have they used? What time period, geographic location, or demographic have they focused on? Where have they reported their results? Are these reputable publication outlets? By exploring existing research, you can get a sense of what type of material already exists on the topic and what kind of contribution you might make to the research landscape.

Librarians can also offer invaluable advice about how to explore potential research topics. For instance, they can demonstrate how to efficiently and effectively use Google Scholar, a widely accessible internet search engine that provides access to peer-reviewed journal articles and other sources, as well as *library databases*, large, searchable online directories of research materials. Additionally, they can help you narrow search terms to maximize productive use of these resources by employing techniques similar to those outlined in Figure 1, adapted from The Learning Portal, College Libraries Ontario (2020).

How to create a database search…

1. **Put your topic in the form of a question, then break it down into 2-3 separate concepts:**

e.g. Is **advertising** on **social networks** an effective way to reach **young adults**?

Concept 1: Advertising
Concept 2: Social Networks
Concept 3: Young Adults

Try it!

Your topic/question:

Concept 1:

Concept 2:

Concept 3:

2. **Create a list of synonyms and related words for each concept:**

Concept	1. Advertising	2. Social Networks	3. Young Adults
Synonyms and related words	Internet advertising Marketing Marketing strategy Publicity Promotion	Social media Web 2.0 Websites Facebook Twitter	Teenagers Adolescents Consumers Customers Demographic

Try it!

Concept	1.	2.	3.
Synonyms and related words			

3. **String together different combinations of your keywords using AND. Add and subtract words for different results.**

e.g. Advertising AND social media AND teenagers; Marketing AND Facebook AND young adults

You can build even more sophisticated searches using OR and NOT

e.g. Advertising AND social media NOT Twitter

Questions? Contact your college library!

Figure 1. How to generate a keyword list to search a database

Effective internet and library research largely hinges on defining useful search terms, and librarians have considerable expertise in this area, making them excellent academic support resources.

Also remember that your instructor is a valuable academic support resource who can help to resolve questions about assignments and encourage research efforts. Instructors build *office hours* into their work calendars each week—times when they are available to meet or talk with students—and these are opportunities to discuss research project as they take shape. Follow the guidance in Figure 2, adapted from McLaughlin Library, University of Guelph (n.d.-b), to gain maximum benefit from office hour sessions.

Figure 2. How to fully benefit from office hour meetings

Do not hesitate to contact your instructor for help with a research project; after all, instructors were once novice researchers, so they can understand the complex nature of research undertakings.

How does an investigator develop research questions?

Upon identifying a pursuable topic, you might construct one or more *research questions*, questions a study seeks to answer, to help further define your project's focus and direction. Depending on the discipline, instructor, or assignment, you might be expected to list the questions in your project deliverable. Alternatively, you might be expected to articulate your answer to the research questions in the form of a thesis statement that establishes your research report's purpose and direction. Figure 3, adapted from McLaughlin Library, University of Guelph (n.d.-c, "Template 2"), illustrates how a research question can be converted into a thesis statement.

Step 1: Topic	**Step 2: Problem**	**Step 3: Question**	**Step 4: Answer (Thesis)**
What area or issue are you interested in? **Example topic:** Using laptops to study in University	Within your topic, where is there controversy or uncertainty? What bothers you or seems strange? **Example problem:** It's unclear whether using laptops helps or hinders academic success in university.	What is a question you might ask about that problem? **Example question:** Are laptops an effective tool for academic success in university?	Answer your question to form your thesis statement. **Example thesis statement:** Although laptops may appear to be a useful study tool, the risks of using laptops for studying actually outweigh the benefits.

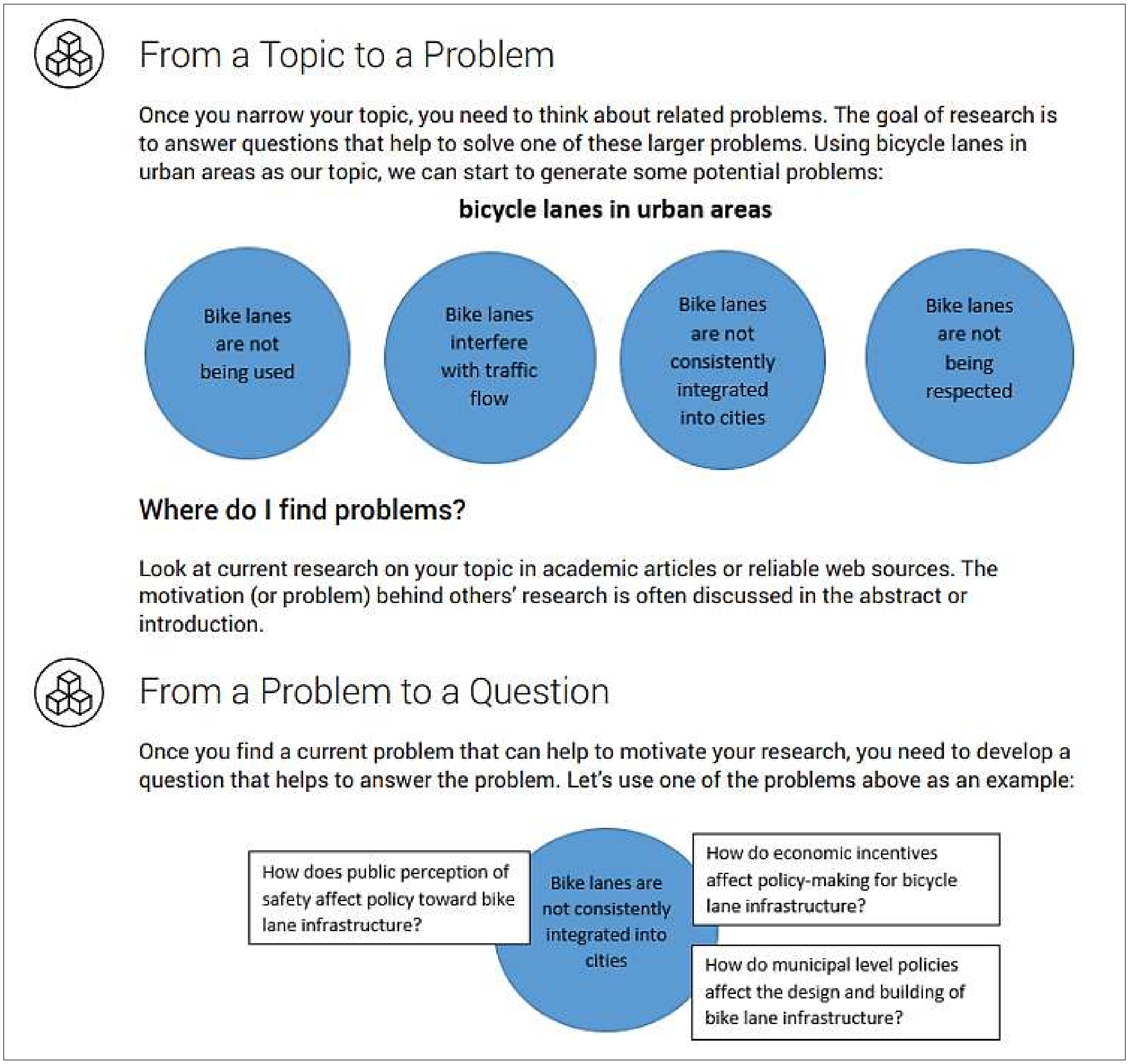
Try it yourself

Topic:	**Problem:**	**Question:**	**Answer (Thesis):**

Figure 3. Moving from a research question to a thesis statement

As Figure 3 explains, a thesis statement is the answer to a research question: it communicates a viewpoint reached as a result of research.

Research questions can determine a project's agenda, scope, and approaches to data collection and analysis if they are purposefully constructed, so it is worth thinking about them carefully. In broad terms, a research question should precisely specify the focus of an investigation so that it can feasibly be pursued through inquiry. The multipage handout in Figure 4, adapted from the Writing and Communication Centre, University of Waterloo (n.d.-a), illustrates the process of moving from a pursuable topic to a research question and further defines the characteristics of effective research questions.



The mistake that most novice researchers make is to attempt to answer a question that's too big to answer through a single research project. Keep it narrow.

Characteristic	What this means?	Examples	
Relevant and interesting	The question is interesting to the researchers and others. It seeks to provide some answers to a larger problem in society that has not been fully addressed.	Good	What is the relationship between bicycle lanes in urban commercial zones and business revenue?
		Poor	Why is cycling good for your health?
Focused and precise	The question specifies a research target and the variables that will be investigated.	Good	To what degree do bike parks encourage cycling in mid-size metropolitan areas?
		Poor	Can good design encourage cycling?
Novel	The question builds upon previous research on the subject – confirming past research or adding new information.	Good	What is the effect of urban bike lanes on suburban communities?
		Poor	What effect do bicycle lanes have on surrounding neighborhoods?
Arguable	The question is open-ended with more than one possible answer; however, research is required to provide answers to the question.	Good	How much do dedicated bicycle lanes contribute to lower CO2 emissions and other air pollutants in urban areas in Canada?
		Poor	Do dedicated bicycle lanes lower CO2 emissions?
Feasible	The research required to answer the question is available and accessible. Data can be collected and analyzed in the time frame of the project.	Good	How much do dedicated bicycle lanes contribute to lower CO2 emissions and other air pollutants in Vancouver, Montreal, and Toronto?
		Poor	How much do dedicated bicycle lanes contribute to lower CO2 emissions in major world cities?

To better understand disciplinary requirements for your research, talk to your professors and look for resources in your discipline.

Figure 4. The process of moving from a topic to constructing an effective research question

While the initial version of a research question can guide the course of a study, the question may also evolve with the project, so be prepared to adjust it as the research takes shape. The multipage handout in Figure 5, adapted from McLaughlin Library, University of Guelph (n.d.-a), reinforces this point and offers a graphic organizer to help with constructing and refining research questions.

DEVELOPING A **RESEARCH QUESTION**

Your research question guides your project from beginning to completion. Unlike your topic, which may be fairly general, your research question will define the specific scope of your project. In other words, the research question tells readers what you're trying to find out.

DEVELOP YOUR RESEARCH QUESTION

1. DEFINE THE TOPIC AREA

In a sentence or two, describe your broad topic or area of research. *(Example: "Smoking cessation.")*

2. DESCRIBE THE PROBLEM

In a sentence or two, describe a problem that could be addressed in your topic or area of research. *(Example: "Smokers often relapse because of complex physical and psychological factors.")*

3. SPECIFY THE GAP & JUSTIFY THE INVESTIGATION

What is unknown or unresolved? Why should we bother investigating it? *(Example: We don't know what combination of physical and psychological factors is most often associated with smoking relapse.)*

4. CREATE THE RESEARCH QUESTION

(1) Brainstorm as many questions as you can think of that relate to your research topic/problem/gap. Try starting questions with what, why, when, where, who, and how; in general, avoid questions that will result in only "yes" or "no" answers.

(2) Draft a primary question: Do you see one main question emerging from the list above? If not, try doing some additional reading or thinking, or talk to your supervisor or instructor *(Example: How do the physiological and psychological effects of smoking make it difficult for young adults to quit smoking?)*

(3) Draft secondary research questions: What information do you need to gather to answer your primary question? *(Example: Before we can answer the question of "how" physiological and psychological effects make it difficult to quit smoking, we need to identify what the key effects are.)*

ASSESS & REFINE

Evaluate your research question. Ask yourself the following questions: will readers understand it on first reading? Is it feasible given your time and resources? Does it contribute to a wider academic conversation?

Tighten your focus. Look at every word in your question. Replace as many as you can with more specific language or ideas (e.g., instead of "students," say "Grade 9 students in Ontario").

Talk it over. Use this worksheet to talk with your supervisor or instructor about the scope and direction of your research plan.

Revisit often! Keep your research question in mind throughout the research and writing process.

You may find that you need to adapt your research question as you learn more.

DEVELOPING A **RESEARCH QUESTION**

1. DEFINE THE TOPIC AREA

In a sentence or two, describe your broad topic or area of research.

2. DESCRIBE THE PROBLEM

In a sentence or two, describe a problem that would be addressed in your topic or area of research.

3. SPECIFY THE GAP & JUSTIFY THE INVESTIGATION

What is unknown or unresolved? Why should we bother investigating it?

4. CREATE THE RESEARCH QUESTION

(1) Brainstorm as many questions as you can think of that relate to your research.

(2) Draft a primary question. Do you see one main question emerging from the list above?

(3) Draft secondary research questions. What information do you need to gather to answer your primary question?

Figure 5. A guide to developing research questions

For a research question to be effective, it must be focused, as figures 4 and 5 emphasize.

How does an investigator conduct research?

During the process of identifying a pursuable research topic and question(s), an investigator must also consider what research methods to use. *Research methods* are means for conducting an investigation, and these should be selected with a study's purpose in mind. The existing literature, context, scope, discipline, and timeline for a project will also help define what research methods are typical, practical, and useful.

In terms of research approaches and methods, an investigator might use primary or secondary research or both when carrying out a project. *Primary research* is raw data that an investigator collects or examines firsthand; such information may be gathered, for example, through the use of interviews, questionnaires, experiments, or observations. The "Interviewing for Information" chapter of this textbook and its accompanying reading, "Introduction to Primary Research: Observations, Surveys, and Interviews" (Driscoll, 2011), discuss several of these research methods in detail. The "Conducting Primary Research" section of the Purdue Online Writing Lab (https://owl.purdue.edu/owl/purdue_owl.html) provides additional information about primary research. An investigator might decide to use primary research, for instance, to delve into a little studied topic, to gather first-person accounts of situations or events, or to uncover various perspectives on issues. *Secondary research* comprises previously conducted studies and organized accounts of what others have discovered or said about a topic. Secondary research can be found in journal articles, laboratory reports, governmental reports, trade publications, magazines, and newspapers, among other sources. By reading secondary research, an investigator can get a feel for the existing scholarship on a topic. In addition, a secondary research source can often lead to other useful sources on the same topic via means of its reference list. A librarian can help you search for useful secondary research sources for a project.

Although this chapter discusses research activities in a linear fashion in an effort to be clear, in reality, research processes are typically recursive, meaning they occur in repeated sequences and oftentimes involve different approaches and types of data sources. Textbook writers Hamlin et al. (2017b, p. 43) explain this point with an example. Imagine you are assigned a course research project. You might begin the project by trying to read journal articles on your chosen topic, only to discover you lack the necessary background knowledge to fully understand the articles. To increase your background knowledge, you might consult an encyclopedia or textbook on the topic. You may then encounter a statement in a newspaper editorial that inspires you to return to journal articles to see if existing research supports the statement. Figure 6, produced by UC Libraries (n.d.), illustrates the recursive nature of research and resource use.

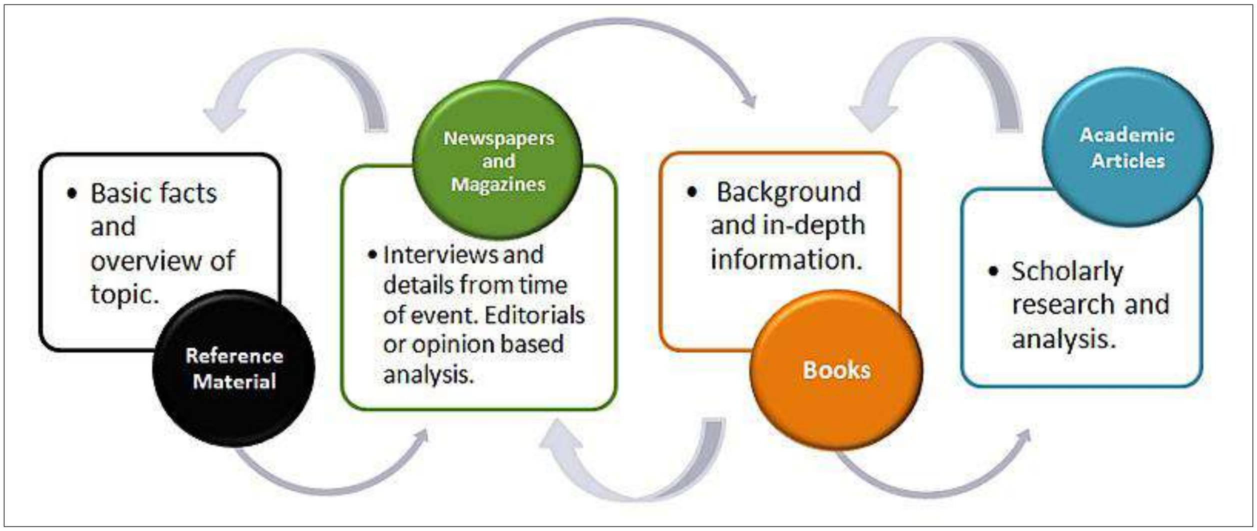


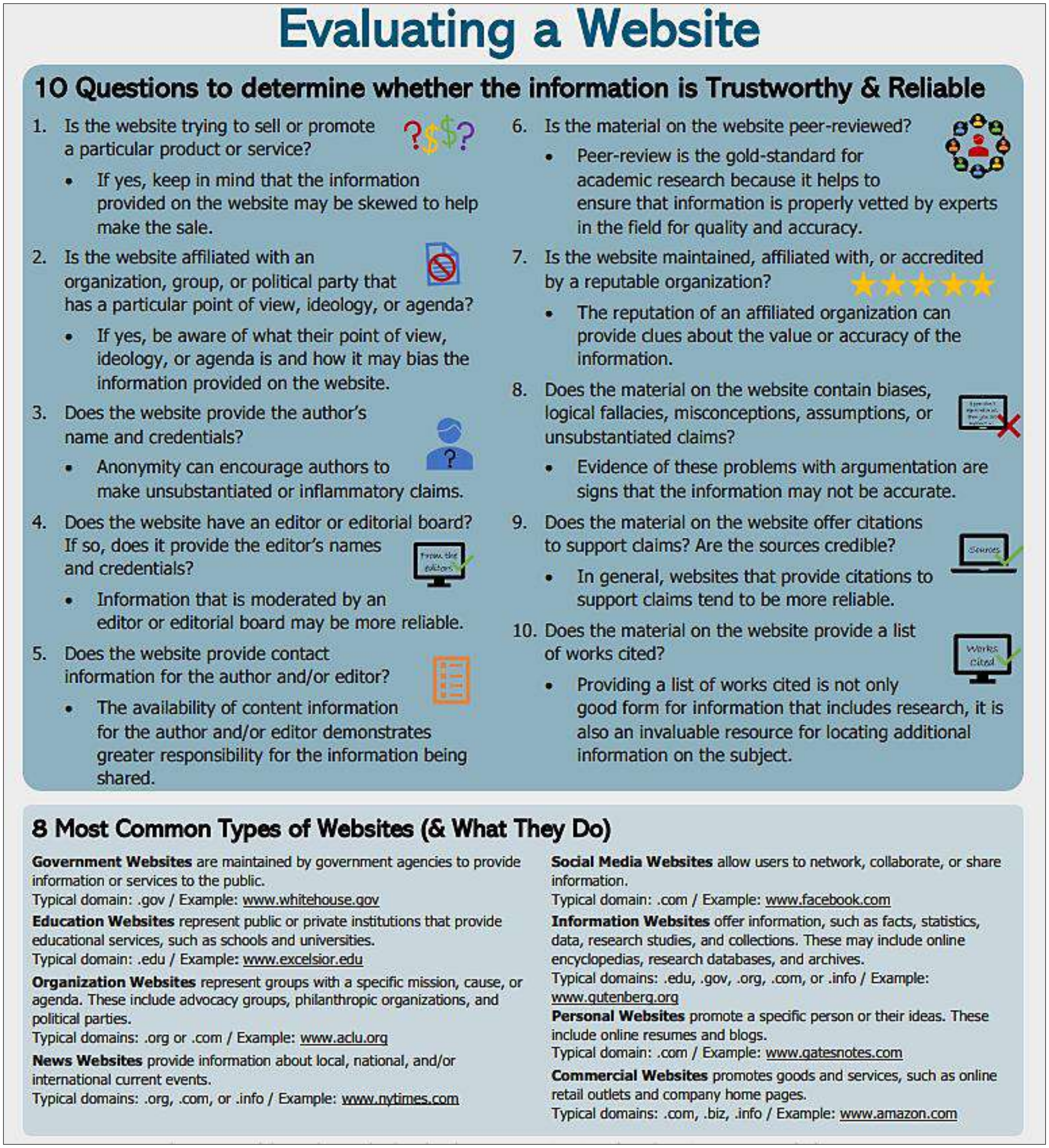
Figure 6. The cyclic nature of research and resource use

Expect to engage with different sources of information at different times as you undertake a research project.

How does an investigator evaluate research information?

Whether you use primary research, secondary research, or both in a project, you have a responsibility as an ethical technical communicator to evaluate the quality of information you incorporate into a deliverable. Readers use research for various purposes—for example, to find out about new medical treatments, ways to use technology, or means for building structures—and they need accurate information to proceed safely and confidently. Looking at the issue another way, the worth of your own research can be called into question if you rely on questionable or disreputable sources. Evaluating the quality of research information is clearly an important task, as Figure 7, a handout adapted from the Excelsior Online Writing Lab (2020d), makes clear.

Can you think of other tips you might add to the handout?



Evaluating a Website

10 Questions to determine whether the information is Trustworthy & Reliable

1. Is the website trying to sell or promote a particular product or service?
   - If yes, keep in mind that the information provided on the website may be skewed to help make the sale.
2. Is the website affiliated with an organization, group, or political party that has a particular point of view, ideology, or agenda?
   - If yes, be aware of what their point of view, ideology, or agenda is and how it may bias the information provided on the website.
3. Does the website provide the author's name and credentials?
   - Anonymity can encourage authors to make unsubstantiated or inflammatory claims.
4. Does the website have an editor or editorial board? If so, does it provide the editor's names and credentials?
   - Information that is moderated by an editor or editorial board may be more reliable.
5. Does the website provide contact information for the author and/or editor?
   - The availability of content information for the author and/or editor demonstrates greater responsibility for the information being shared.
6. Is the material on the website peer-reviewed?
   - Peer-review is the gold-standard for academic research because it helps to ensure that information is properly vetted by experts in the field for quality and accuracy.
7. Is the website maintained, affiliated with, or accredited by a reputable organization?
   - The reputation of an affiliated organization can provide clues about the value or accuracy of the information.
8. Does the material on the website contain biases, logical fallacies, misconceptions, assumptions, or unsubstantiated claims?
   - Evidence of these problems with argumentation are signs that the information may not be accurate.
9. Does the material on the website offer citations to support claims? Are the sources credible?
   - In general, websites that provide citations to support claims tend to be more reliable.
10. Does the material on the website provide a list of works cited?
    - Providing a list of works cited is not only good form for information that includes research, it is also an invaluable resource for locating additional information on the subject.

8 Most Common Types of Websites (& What They Do)

Government Websites are maintained by government agencies to provide information or services to the public.
Typical domain: .gov / Example: www.whitehouse.gov

Education Websites represent public or private institutions that provide educational services, such as schools and universities.
Typical domain: .edu / Example: www.excelsior.edu

Organization Websites represent groups with a specific mission, cause, or agenda. These include advocacy groups, philanthropic organizations, and political parties.
Typical domains: .org or .com / Example: www.aclu.org

News Websites provide information about local, national, and/or international current events.
Typical domains: .org, .com, or .info / Example: www.nytimes.com

Social Media Websites allow users to network, collaborate, or share information.
Typical domain: .com / Example: www.facebook.com

Information Websites offer information, such as facts, statistics, data, research studies, and collections. These may include online encyclopedias, research databases, and archives.
Typical domains: .edu, .gov, .org, .com, or .info / Example: www.gutenberg.org

Personal Websites promote a specific person or their ideas. These include online resumes and blogs.
Typical domain: .com / Example: www.gatesnotes.com

Commercial Websites promotes goods and services, such as online retail outlets and company home pages.
Typical domains: .com, .biz, .info / Example: www.amazon.com

Figure 7. Tips for evaluating the trustworthiness of websites

Although Figure 7 focuses on the trustworthiness of websites, the "Writing Topic Proposals" and "Writing Essays" chapters of this textbook provide additional guidance on how to evaluate the quality of various types of sources.

How does an investigator use research information?

As a research project takes shape and progresses, you will also need to think about the relationship of source information to your research deliverable. That is, what type of information will you use, and how will you use it? The following text, adapted from Hayden and Margolin (2020), discusses this point in further detail.

How to Use a Source: The BEAM Method

Different kinds of sources may be used for various purposes in a paper. The BEAM method, developed by Bizup (2008), may help you identify the usefulness of different types of sources. BEAM stands for **B**ackground, **E**xhibit, **A**rgument, and **M**ethod.

- **Background**: using a source to provide general information to explain a topic. For example, using a textbook chapter to explain what it means to interview for information.
- **Exhibit**: using a source as evidence or as a collection of examples to analyze. For a technical writing assignment, for instance, you might analyze a formal report. For a history paper, you might analyze a historical document. For a sociology paper, you might analyze the data from a study.
- **Argument**: using a source to engage its argument. For example, you might use an editorial from *The New York Times* on the value of higher education to refute in your own paper.
- **Method**: using a source's way of analyzing an issue to apply to your own issue. For example, you might use a study's methods, definitions, or conclusions on gentrification in Chicago to apply to your own neighborhood in New York City.

Reference

Bizup, J. (2008). BEAM: A rhetorical vocabulary for teaching research-based writing. *Rhetoric Review, 27*(1), 72-86. https://doi.org/10.1080/07350190701738858

Using the BEAM method as inspiration, we can create the graphic organizer in Table 1 to guide our efforts to match sources to purposes in a deliverable. Note that the number of source cells can be reduced or increased depending on the research project.

Table 1. A graphic organizer for matching sources to their purposes in a deliverable

Research Question:		
Background		
Source 1 (identify source):	Useful section or page:	Where and how I will use it:
Source 2:		
Source 3:		
Exhibit		
Source 1 (identify source):	Useful section or page:	Where and how I will use it:
Source 2:		
Source 3:		
Argument		
Source 1 (identify source):	Useful section or page:	Where and how I will use it:
Source 2:		
Source 3:		
Method		
Source 1 (identify source):	Useful section or page:	Where and how I will use it:
Source 2:		
Source 3:		

A graphic organizer like the one in Table 1 offers a visual layout of how different types of sources might be used and how they ultimately tie back to a research question.

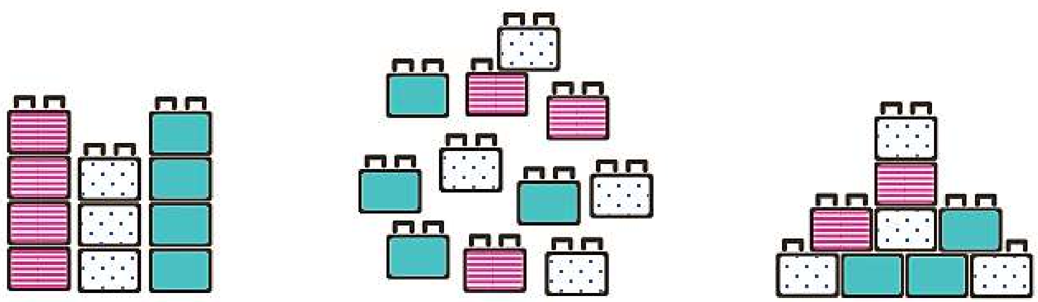
In addition to determining what types of sources might be useful for what purposes in a deliverable, a researcher also needs to *synthesize* source information, in other words, combine it purposefully with the objective of creating something new, to make a contribution to the existing field of research. Figure 8, a multipage handout adapted from the Writing and Communication Centre, University of Waterloo (n.d.-b), illustrates the process of synthesis in a research project.

HOW TO THINK: MOVING FROM RESEARCH TO WRITING

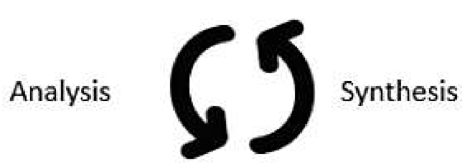
How do you move from your research notes to answering your research question? This can be the most thinking-intensive part of writing an paper. It requires you to figure out:

How Does It All Fit Together?

Figuring out how it all fits together is a little like playing with Legos. You gather the blocks, take them apart, play around with them, and eventually create something new.



In academia, we call the process of taking things apart **analysis** and the process of putting them back together **synthesis**. These processes are circular and involve asking a lot of questions. One question leads to another until the pieces come together.



How do you know what questions to ask? It's not always obvious. You keep trying until you uncover something worth writing about. Below are some samples of good questions.

Analysis Questions

When you want to understand something, ask questions like these to delve deeper.

Who
- has a personal stake in this?
- knows the most about this?

What
- is another side of this?
- might the consequences be?

How
- do I know this is true?
- will this change the way we understand things?

When
- did this start? might it end?
- will it make a difference?

Where
- else might this be applicable?
- in the world might this have an impact?

Why
- does this happen?
- is this important?
- has no one else looked into this?

Synthesis Questions

Understanding something often requires connecting it to other ideas from academic sources, fieldwork, and personal observation. Here are some strategies to make connections.

Establish relationships

- how does one idea touch another? (in time, in space, in meaning)
- do the data relate to theories you've studied?
- how do ideas compare? (look for comparative words like fewer, better, stronger...)

Identify patterns

- how is this idea similar to other texts? how is it different?
- can you see a cause-and-effect pattern? (look for words like because, since, as a result)
- is some information consistently left out or missing?

Draw parallels

- what else does this remind you of?

Examine intersections

- where do two very different ideas come together? what happens when they do?

Recognize incongruities
- what's not quite right? what doesn't come out as expected?

Playing with these types of questions, plus some creative thought of your own, should help you figure out what you will write about.

Figure 8. Using synthesis to combine source information and create something new

As this section makes clear, a research project involves more than just gathering data. It calls upon an investigator to use the data in purposeful ways to address research objectives.

How does an investigator track steps in the research process?

Although the research process discussed thus far may seem rather involved, effective preparation can prevent it from becoming overwhelming. A simple tool like the one in Table 2 can help you systematically plan and monitor the progress of a project in order to work confidently toward its conclusion.

Table 2. A tool for tracking steps in the research process

Research Task	Deadline	Complete (Insert Check Mark)

To manage the complexities of research in an orderly manner, use a tool such as this one when undertaking a project.

How does an investigator report research outcomes?

Research outcomes are reported in various types of deliverables, such as infographics and presentations. This chapter concentrates on written reports of research outcomes, focusing in particular on APA-style reports. APA establishes standards for document organization, page design, text construction, and source attribution, as forthcoming sections make clear. This standardization helps bring consistency to APA-style research reports.

<u>Organizing Documents</u>

APA reports are designed for utility so that readers can readily access and use the information contained therein. The body of an APA research report generally follows IMRaD structure, which stands for **I**ntroduction, **M**ethod, **R**esults, and **D**iscussion. Lab reports similarly follow this structure, as do many journal articles. Using information adapted from Price et al. (2015, pp. 213-221), we can explore the structure of an APA-style research report in further detail.

Constructing the Title Page

An APA-style research report begins with a title page. The title should specifically and concisely communicate the focus and purpose of the investigation, possibly by addressing the study's research question(s). A clear and informative title, such as "Bilingual, Digital, Audio-Visual Training Modules Improve Technical Knowledge of Feedlot and Dairy Workers" (Reinhardt et al., 2010), immediately alerts readers to a report's content, helping them determine whether the document is relevant for their needs.

Constructing the Abstract

The abstract is a synopsis of the study, presented on its own separate page, which summarizes the research objectives, the method used to conduct the investigation, the basic results, and the most important conclusions, oftentimes in one concise paragraph of 250 words or fewer. Because an abstract outlines a research report, it is written after the report is complete. Readers use abstracts to determine whether texts are relevant for their needs. Figure 9, adapted from Bethel (2020, p. 61), presents a sample journal article abstract—an abstract is a standard feature of the journal article genre. Notice that the abstract follows IMRaD structure.

Abstract

Open educational resources (OER), are openly licensed text, media, and other digital and analog assets that are useful for teaching, learning, and research. Recent research has shown that in courses where open textbooks are assigned, students perform as well as or better than students in similar courses with commercially licensed textbooks. Despite cost savings and demonstrated effectiveness, perceptions about quality, relevance, ease of access, and other concerns persist. The objectives of this study were twofold: (a) to develop a practical and reusable measure for evaluating open textbook quality in terms of pedagogy, openness, accessibility, and relevance; and (b) to use the measure to rate the quality and relevance of open textbooks for use in higher education in The Bahamas. The study confirmed the viability of the quality measure as a practical tool to assess open resources and found that the open textbooks studied were accessible and well matched to course content, but of varying quality. More study is needed to explore ways to increase faculty adoption, use, adaption and production of OER.

Research objectives

Method

Results and conclusion

Figure 9. A sample abstract from a journal article

An abstract’s strategic location in a journal article—at the top of the article’s first page—efficiently directs readers to useful information.
Although APA style does not require abstracts for student papers, some instructors may assign them regardless. If you are required to compose an abstract for an APA-style report, follow these instructions.

- Start the abstract on its own separate page.
- Double space the page.
- Place the heading *Abstract* (sans italics) at the top of the page; center the heading and use bold type for it.
- Begin the abstract text on the next line; do not indent the line.
- Insert the keywords list on the line right below the abstract by typing the label *Keywords:* (italicized), indenting that line, and listing three to five specific keywords that describe the research. (Keywords identify the most important aspects of a paper, again helping readers to discern what texts are relevant for their needs.)

Figure 10, adapted from Excelsior Online Writing Lab (2020b, “Abstract”), provides a sample abstract and keywords list for an APA-style student paper.

2

Abstract

Although students are aware of source credibility issues, they do not always apply this knowledge to their own written work. This paper argues that students will have a greater chance of transferring knowledge about source credibility when they are required to address it *during* the drafting stage of writing. Templates that require students to evaluate sources each time they integrate source information into their texts may help them make better decisions about credibility and focus explicitly on the importance of using credible sources.

Keywords: source credibility, source evaluation, evaluation templates

Figure 10. Abstract and keywords list for an APA-style student paper

If you are required to produce an APA research report for a class, ask your instructor whether an abstract and keywords list is required.

Constructing the Introduction

The introduction section of an APA-style research report sets the context for the rest of the document. It does so by announcing the research focus and explaining why it is interesting, reviewing previous research pertinent to the study, identifying a gap in the previous body of research and establishing how the current study intends to fill the gap, stating the research question(s)/research purpose, and outlining how the rest of the report is organized.

Depending on publication conventions, field of study, or research topic, the literature review segment of an introduction may be incorporated into the introduction proper or presented as its own separate section. A literature review can span several paragraphs or pages, depending on the length and complexity of the research report, and it constitutes a balanced argument for why the research question(s)/research purpose is worth addressing. By the end of the literature review, readers should be convinced that the study's aims and direction make sense and that the study is a logical next step in extending the existing body of research in the area.
Figure 11, adapted from University of Waterloo (2015, p. 2), provides a sample introduction from an APA-style research report. Integral components of the student's introduction are highlighted for your reference.

What is your general impression of the sample introduction? What specific features contribute to its effectiveness/ineffectiveness?

Effects of Acute Exercise on Executive Function in Children with ADHD

Executive function (EF), or the capacity to plan and carry out behavior to achieve a goal, is critical for self-directed behavior and independence. Increasing evidence has repeatedly documented that individuals with attention deficit hyperactivity disorder (ADHD) exhibit compromised EF from childhood through adulthood (see reviews by Pennington & Ozonoff, 1996; Willcutt et al., 2005). However, recent research suggests that aerobic exercise may enhance children's executive function. This finding is of particular interest for children with ADHD who have trouble with executive function. Although pharmaceutical and behavioral interventions can help these children, many parents do not wish to use medications to treat ADHD (Pisecco et al., 2001; Power et al., 1995). Moreover, some children experience notable side effects from medication (Swanson et al., 2006; Wigal et al., 2006). Consequently, the need to find alternative interventions to modulate cognition in individuals with ADHD continues to be a growing area of research. The purpose of this paper is to examine the impact of acute aerobic exercise on the executive function of children with ADHD. To this end, it reviews empirical neuropsychological studies published in the past seven years and finds that, overall, physical exercise represents an effective intervention to enhance EF in children with ADHD. This paper outlines ADHD and executive function, examines findings from empirical studies to summarize the effectiveness of acute aerobic exercise on EF in children with ADHD, and discusses the implications of exercise for children's development as well as themes for future research.

Announces the research focus, explains why it is interesting, and reviews previous research pertinent to the study

Identifies a gap in the existing research

States the research purpose

States the research approach (uses secondary research), scope, and conclusion

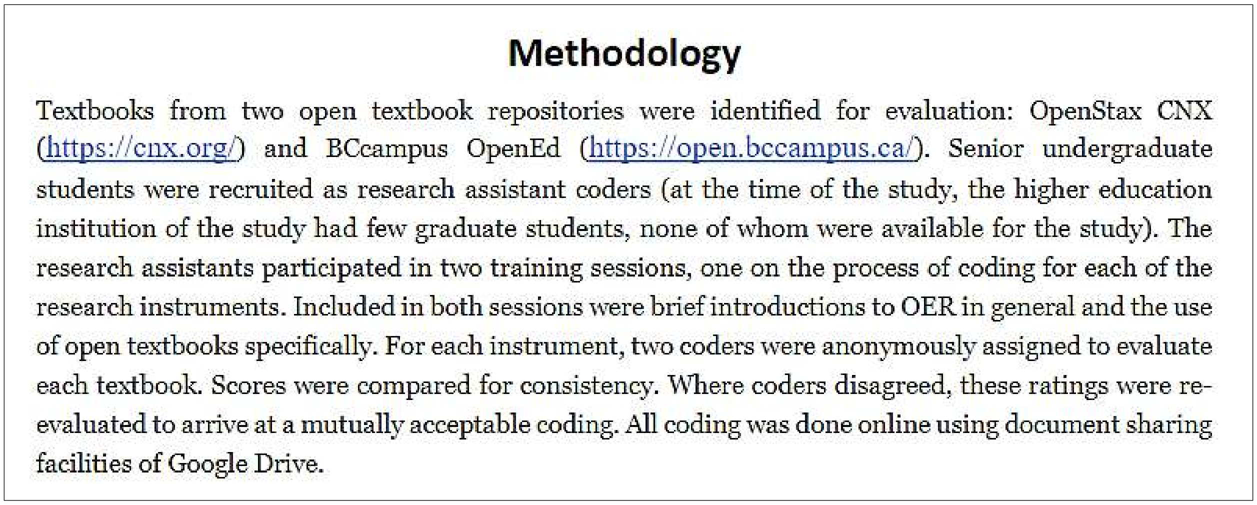
States how the report is organized

Figure 11. An introduction from a student research report

This introduction explains the *what*, *why*, *how*, and *so what* of the report, giving readers a sense of context for the research study.

Constructing the Method Section

The method section describes how a researcher conducted a study and explains what types of primary and secondary research were used and how. Figure 12, excerpted from the journal article "Open Textbooks: Quality and Relevance for Postsecondary Study in The Bahamas" (Bethel, 2020, p. 66), provides an extract from a method section of a research report. You previously read the abstract for this report in Figure 9.



Methodology

Textbooks from two open textbook repositories were identified for evaluation: OpenStax CNX (https://cnx.org/) and BCcampus OpenEd (https://open.bccampus.ca/). Senior undergraduate students were recruited as research assistant coders (at the time of the study, the higher education institution of the study had few graduate students, none of whom were available for the study). The research assistants participated in two training sessions, one on the process of coding for each of the research instruments. Included in both sessions were brief introductions to OER in general and the use of open textbooks specifically. For each instrument, two coders were anonymously assigned to evaluate each textbook. Scores were compared for consistency. Where coders disagreed, these ratings were re-evaluated to arrive at a mutually acceptable coding. All coding was done online using document sharing facilities of Google Drive.

Figure 12. An extract from the method section of a journal article

As Figure 12 illustrates, the method section should be clear and detailed to facilitate reader understanding; in some cases, the level of detail should allow other researchers to replicate the study by following the procedures outlined.

Constructing the Results Section

The results section presents an investigation's findings and oftentimes contains illustrations to concisely explain points and illustrate complex concepts. Figure 13, adapted from Excelsior Online Writing Lab (2020e), overviews some of the different types of visuals that might be found in a results section.

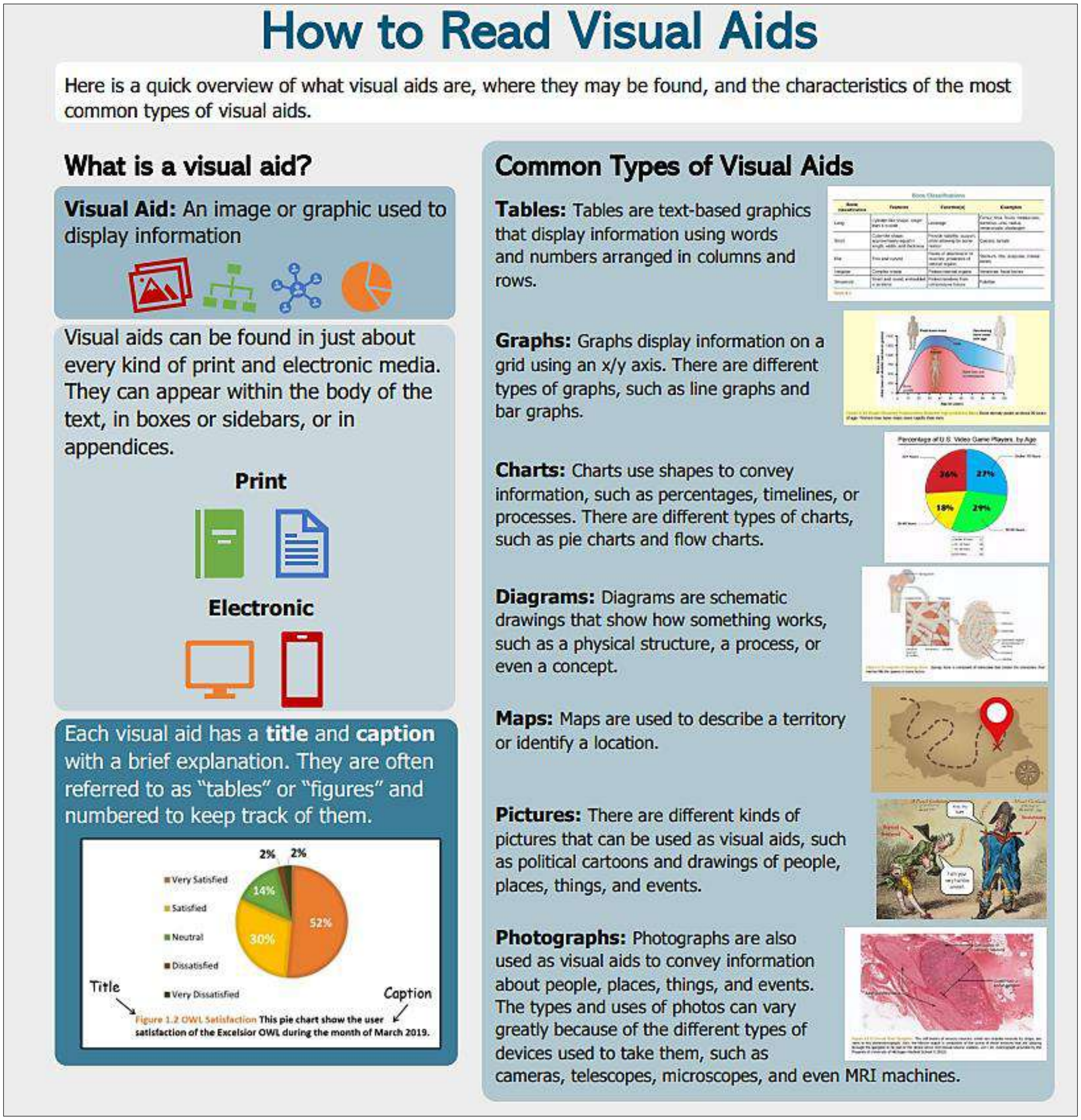


Figure 13. An overview of common types of visuals

The results section of the Bethel (2020) article on open textbooks contains various types of visuals, as Figure 14, an extract from pages 70 and 71 of the article, illustrates.

Course Match

From the total sample, 17 textbooks were selected to be evaluated against 14 different courses. Courses were matched against as many as three different texts. Similarly, the same text could be matched against more than one course. In total, 29 unique pairings of textbooks and courses were evaluated. Two coders rated each text using the form shown in Appendix B. Where there were disagreements, the author re-coded the text to resolve the disagreement; re-coding successfully resolved all the disagreements. The degree of match for each of the courses is shown in Table 2.

Table 2

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Rate of OER Textbook Match to Postsecondary Courses at a Postsecondary Institution in The Bahamas

Course number	Textbook title	Degree of match
1	*OpenStax Introduction to Psychology*	70%
2	*OpenStax Principles of Economics*	100%
3	*OpenStax Principles of MacroEconomics*	100%
3	*Lyryx Principles of MacroEconomics*	86%
4	*OpenStax Principles of MicroEconomics*	98%
4	*Lyryx Principles of MicroEconomics*	100%
5	*OpenStax Concepts of Biology*	76%
5	*OpenStax Biology*	83%
6	*OpenStax Concepts of Biology*	82%
6	*OpenStax Biology*	89%
7	*OpenStax Concepts of Biology*	72%
7	*OpenStax Biology*	81%
8	*OpenStax Introduction to Sociology*	78%
8	*OpenStax Introduction to Sociology 2e*	80%
9	*Fundamentals of Mathematics*	81%
9	*PreAlgebra*	85%
10	*Fundamentals of Mathematics*	55%
10	*PreAlgebra*	66%
10	*Elementary Algebra*	44%
11	*Elementary Algebra*	54%
12	*OpenStax College Algebra*	91%
12	*OpenStax Algebra and Trigonometry*	91%
12	*OpenStax PreCalculus*	14%
13	*OpenStax College Algebra*	73%
13	*OpenStax Algebra and Trigonometry*	73%
13	*OpenStax PreCalculus*	50%
14	*OpenStax College Algebra*	6%
14	*OpenStax Algebra and Trigonometry*	87%
14	*OpenStax PreCalculus*	87%

In general, the textbooks were well-matched to the courses. The mean degree of match was 74%, but this measure of central tendency may be misleading as two texts were particularly poorly matched to their respective courses (6% and 14%, respectively.) In general, textbook content was well-aligned with courses at the tertiary institution being studied, as demonstrated by the distribution of textbooks by degree of match (Figure 5.) The modal category is 80 to 89% match and a majority of textbook-course pairings (22 out of 29) fell within the top three categories.

71

Figure 14. An extract from the results section of a journal article

As you review Figure 14, think back to your previous reading about integrating visuals. What change might improve the design of the extract? Provide a rationale for your answer.

The "Designing Documents" and "Integrating Graphic Elements" chapters of this textbook provide further information about the kinds of illustrations that might be found in the results sections of research reports. The APA website (https://apastyle.apa.org/instructional-aids/handouts-guides) also provides useful guidance about designing and incorporating visuals.

Constructing the Discussion Section

The discussion section of a research report tells readers what the study's results mean, draws conclusions based on this interpretation, and may also identify limitations of the research and make suggestions for future investigations. In so doing, the discussion draws connections between the study and existing research discussed in the literature review. Sometimes the results and discussion segments of a report are combined, enabling the writer to discuss both components together; a separate conclusions section may also be included at the end of a report to reinforce the contributions of the research.

Figure 15, adapted from University of Waterloo (2015, p. 7), presents the discussion section of the student research report on children with ADHD that you began reading earlier. What is your general impression of this text? Explain the reason for your response.

Discussion

The existent literature indicates that acute aerobic exercise enhances some of the processes and brain areas related to EF in children with ADHD. Physical activity may aid in brain development, particularly in the prefrontal cortex, which can improve EF in children with ADHD already experiencing delayed brain development in this area. While this impact may differ depending on the complexity and type of exercise, the suitable duration of physical activity to optimize these effects remains unclear. Moreover, the degree to which these impacts persist outside of the laboratory setting requires further study. Taken together, the current findings suggest a role for physical exercise as a treatment for children with ADHD. Teachers and parents may find the potential for physical exercise as an intervention promising, especially for children with ADHD.

Tells readers what the study's results mean and draws conclusions

Identifies limitations and makes suggestions for future studies

Figure 15. Discussion section of a student research report

As Figure 15 illustrates, a discussion section should bring a research report to a logical conclusion.

Constructing the Reference Section

The reference section of a report, which begins on its own separate page, lists the full bibliographic details for sources mentioned in the document. Any source listed in the reference section must have an accompanying in-text citation.

Constructing Appendices

Appendices contain supplementary material that is relevant to the report and may enhance readers' understanding of its content but that is too lengthy or detailed to be integrated into the report proper. Appendices may not feature in every report; if a report does include them, each appendix is placed on a separate page and is comprised of an individual document or piece of information, such as a map, a list of interview questions, or other material that does not fit neatly into the report. Figure 16, an appendix from the Bethel (2020) article on open textbooks, contains a textbook evaluation instrument presented on its own page (p. 80).

Appendix B

Textbook Evaluation Form 2 (Relevance)

One form to be completed for each course. List texts to be applied to that course as Textbook 1, Textbook 2, Textbook 3, and so on.

Text			Textbook 1	Textbook 2	Textbook 3
URL			URL 1	URL 2	URL 3
Topic # as listed in the course outline	Topic description as stated in the course outline	Objectives as listed in the course outline or subtopics if no objectives listed	Resource covers this objective: 2=Completely 1=Partially 0=Not at all	Resource covers this objective: 2=Completely 1=Partially 0=Not at all	Resource covers this objective: 2=Completely 1=Partially 0=Not at all
1	**Topic as stated**				
		Objective 1			
		Objective 2			
		Objective 3			
2	**Topic as stated**				
		Objective 1			
		Objective 2			
		Objective 3			
3	**Topic as stated**				
		Objective 1			
		Objective 2			
		Objective 3			
4	**Topic as stated**				
		Objective 1			
		Objective 2			
		Objective 3			
5	**Topic as stated**				
		Objective 1			
		Objective 2			
		Objective 3			

Figure 16. An appendix page from a journal article

If a report contains one appendix, it is labelled *Appendix* (sans italics). When a report contains more than one appendix, the appendices are lettered in the order in which they are mentioned in the report and labelled with a descriptive tag, as is the appendix in Figure 16.

Designing Pages

APA sets specific formatting standards for student research papers. The template below, adapted from Clackamas Community College Library (2020), Excelsior Online Writing Lab (2020c), and University of Texas Arlington Libraries (2016, “Alphabetizing References”), describes formatting guidelines for APA student papers. The original Clackamas Community College Library (2020) template can be downloaded from http://libguides.clackamas.edu/citing/apa7.

1

Insert the page number here

Title of Student Paper

Insert one blank space here

Student Name

Department Name, College Name

Course Number and Course Title

Instructor Name

Assignment Due Date (written in month, day, year format)

APA 7th edition mentions various font (typestyle) choices. Choose to use:

11-point Calibri

11-point Arial

10-point Lucida Sans Unicode

12-point Times New Roman

11-point Georgia

This sample document uses 11-point Calibri font. Notice that a single space is inserted after the punctuation mark at the end of each sentence.

Title of Student Paper (this is a first-level heading)

The title at the top of this page is formatted as a first-level heading, meaning that it should be centered, bold, and use title case capitalization. *Title case* means that the first letters of all the content words in the title are capitalized but other words are not.

Ragged right margin

Do not use *Introduction* as a title; instead, list the specific title of the paper at the top of this page. The title on document page one (the title page) and at the top of this page should match.

Indentations, Margins, Alignment, and Spacing

Indent every paragraph 0.5 inches (not five spaces), and use 1-inch margins on the top, bottom, left, and right sides of every page.

Use left alignment when formatting an APA-style paper. Leave the right alignment ragged; do not right-justify the paper.

Double space the entire report, including the title and reference pages, and make sure there are no extra spaces between paragraphs. MS Word's default is to add extra space between paragraphs when you hit *Enter*. You will need to undo that default in Word's Paragraph toolbox.

Flush left margin

Headings

Use descriptive headings to organize sections of your paper. APA student papers may contain some or all of the following sections: an introduction with a research question or thesis, background about the topic, current findings, your analysis or discussion of the topic, further research needed or unanswered questions, and a conclusion.

In many instances, you will only need to use first-level headings to label the sections of a paper, but when composing a long or complex piece of writing, you might need to use additional heading levels. You may also notice additional heading levels when reading journal articles.

Second-Level Headings (this is a second-level heading)

Second-level headings are for sections within first-level headings, so you would use second-level headings to break up a larger section you have created with a first-level heading. Align second-level headings with the left margin, bold them, and use title case capitalization.

Guidelines for Using Headings

Insert headings into a text only where necessary. Headings should help to effectively signpost document content for readers but should not overwhelm them with visual clutter. When subdividing a document section, use at least two lower-level headings. We can compare lower-level headings to the elements of an outline here: you cannot have an *A* without a *B* in an outline.

Never leave a heading as the final line of a page. If two lines of text will not fit underneath the heading, begin the section on the next page of the report.

Third-Level Headings (this is a third-level heading)

Third-level headings are necessary when you need to break down your second-level headings into smaller sections. A third-level heading exists inside a second-level heading section.

Guidelines for Formatting Third-Level Headings

Align third-level headings with the left margin, bold them, italicize them, and use title case capitalization.

Fourth-Level Headings (this is a fourth-level heading). When using a fourth-level heading, your paragraph begins here on the same line. Fourth-level headings may be found in long documents.

Guidelines for Formatting Fourth-Level Headings. Fourth-level headings are sections inside third-level headings. A fourth-level heading is indented, bold, uses title case for capitalization, and ends with a period. Your text should appear on the same line as a fourth-level heading.

Fifth-Level Headings (this is a fifth-level heading). When using a fifth-level heading, your paragraph begins right here on the same line. You may encounter a fifth-level heading in a lengthy report or book.

Guidelines for Formatting Fifth-Level Headings. This is the last APA heading level. The fifth level is used to break up a fourth-level section into additional sections. A fifth-level heading is indented, bold, italicized, uses title case for capitalization, and ends with a period. Just like fourth-level headings, the text begins right after the period.

In-Text Citations and References

Whenever you include an idea in your paper that is not originally your own, you must attribute that information to the original author(s). When using APA style, authors attribute source information by citing and referencing. In-text citations consist of the author's last name, followed by year of publication and page number. A citation may be written into a sentence in narrative format using a *signal phrase*, which helps introduce the idea discussed. Alternatively, a citation can be enclosed in parentheses at the end of a sentence (called *parenthetical citation*). Here are examples of both formats.

In-Text Citations in Narrative Format Using Signal Phrases

Apardian and Reid (2020) reported that…

Bauer (2018) proposed…

According to Clifford (2011), subjects were…

In-Text Citations in Parenthetical Format

Here is a parenthetical citation: The researchers found that… (Schein & Schein, 2016). In the signal phrase examples above, notice the word *and* was spelled out when used in a sentence to connect authors' names. In the parenthetical example, *and* was replaced with an ampersand (&) because the citation was enclosed in parentheses.

Quotations

Paraphrase or summarize authors' ideas whenever possible rather than using direct quotations. If you choose to include a direct quotation, place it inside quotation marks and "always provide the author, year, and page number of the quotation in the in-text citation" (American Psychological Association, 2020, p. 270). Remember that paraphrased and summarized ideas still require citations; the *Publication Manual of the American Psychological Association* (American Psychological Association, 2020, p. 269) recommends including page numbers in these citations to help readers find source information in lengthy documents.

APA Help

If you need assistance with APA, contact a college librarian or your instructor or consult the following resources.

- American Psychological Association (APA)

  https://apastyle.apa.org/instructional-aids/
- Excelsior Online Writing Lab

  https://owl.excelsior.edu/citation-and-documentation/apa-style/
- Purdue Owl

  https://owl.purdue.edu/owl/research_and_citation/apa_style/apa_style_introduction.html

References

American Psychological Association. (2020). *Publication manual of the American Psychological Association* (7th ed.). https://doi.org/10.1037/0000165-000

Apardian, R. E., & Reid, N. (2020). Going out for a pint: Exploring the relationship between craft brewery locations and neighborhood walkability. *Papers in Applied Geography*, *6*(1), 1-16. https://doi.org/10.1080/23754931.2019.1699151

Use live links for papers that will be viewed online

Bauer, B. A. (2018, December 20). *What are the benefits of CBD—and is it safe to use?* Mayo Clinic. https://www.mayoclinic.org/healthy-lifestyle/consumer-health/expert-answers/is-cbd-safe-and-effective/faq-20446700

Clifford, S. (2011, December 28). Nine Lives, One Leash. *The New York Times.* https://www.nytimes.com/2011/12/29/garden/training-a-cat-to-walk-on-a-leash.html

Schein, E. H., & Schein, P. A. (2016). *Organizational culture and leadership* (5th ed.). John Wiley & Sons, Inc.

Alphabetizing References:

- Alphabetize letter by letter beginning with the first author's last name.
- Alphabetize prefixes such as Mc and Mac literally.
- Alphabetize group authors (associations or agencies) by the first significant word of the name, and use the full name, not an acronym.
- If the author is designated as Anonymous, then the entry is alphabetized as if Anonymous is a true name.
- If there is no author, alphabetize the entry by the first significant word in the title.

Constructing Text

In addition to page design specifications, APA makes recommendations regarding text construction. Conveniently, some of these items overlap with stylistic characteristics common to technical writing. We will explore a number of these items here.

Using Appropriate Verb Tenses in Reports

Writers use different verb tenses in the various sections of reports to describe research stages and outcomes. Figure 17, adapted from Tsai (2017, p. 2), details the circumstances for verb tense use in report sections.

1) Use **past tense** for reporting the findings of a completed and published study.

Examples:

- Arslan (2007) investigated the performance characteristics of biodiesel as a diesel engine fuel.
- The performance characteristics of biodiesel as a diesel engine fuel were investigated by Arslan (2007).
- Biodiesel was shown to have promise as an alternative to regular diesel (Arslan, 2007).

2) Use **present perfect tense** for referring to an area inquiry that contains some current/ongoing studies and completed/published studies. This verb tense is often used when the author wants to indicate the trend of research findings in a particular area.

Examples:

- The potential of biodiesel as an regular diesel has been widely investigated (Aslan, 2007; Pinnarat, 2006; Savage, 2005).
- There have been several investigations of the potential of biodiesel as an alternative to regular diesel (Aslan, 2007; Pinnarat, 2006; Savage, 2005).
- Many researchers have investigated the potential of biodiesel as an alternative to regular diesel.

3) Use **present tense** to refer to general accepted knowledge of the field that is still applicable for current situations. This tense is also commonly used when the author wants to talk to the reader to comment/explain the cited studies.

Examples:

- The scarcity of known petroleum reserves is making renewable energy resources increasingly attractive (Demirbas, 2007; Pinnarat, 2006; Savage, 2005).
- The scarcity of known petroleum reserves is making renewable energy resources increasingly attractive [1-3].

The citation examples are selected from: Feak, C. B. & Swales, J. (2009). *Telling a Research Story: Writing a Literature Review.* Ann Arbor, MI: The University of Michigan Press. pp.46, 52-53

Figure 17. Verb tenses are used for different purposes in research reports

As Figure 17 makes clear, verb tenses point to different conceptual and temporal circumstances in research reports.

Eliminating Contractions (adapted from Schall, 2014c, para. 2)

Contractions—in which an apostrophe is used to contract two words into one by joining parts of them—are considered to be informal, conversational expression. Contractions should not be included in a formal document, such as a report, unless the report writer is quoting something that contains contractions.

Avoiding Commonly Confused Words

Word choice errors may affect the readability of a research report. Here are few sets of commonly confused words that can influence readers' perceptions of a document.

Amount/Number

- Use *amount* to refer to something that cannot be counted.
  - Jagdish was disgusted by the amount of litter on the ground.
- Use *number* to refer to something than can be counted.
  - Ali was surprised by the number of mistakes in the report.

Between/Among

- Use *between* to associate two persons or items.
  - The workshop participants discussed the differences between paraphrasing and summarizing.
- Use *among* to associate three or more persons or items.
  - The instructor distributed the tasks among four groups.

Less/Fewer

- Use *less* to refer to an uncountable quantity.
  - I have less homework this week than I did last week.
- Use *fewer* to refer to a countable quantity.
  - I have fewer pieces of homework this week than I did last week.

Be on the lookout for these commonly confused words when reading and writing research reports.

Avoiding Dangling Modifiers (adapted from Schall, 2014c, paras. 12-13)

Dangling modifiers, descriptive words that seem to dangle off by themselves because they do not accurately describe the words next to them, are a common occurrence in technical writing and are easily overlooked by the writer who assumes the reader will automatically follow the sentence's meaning. Most often, writers dangle modifiers at the beginnings of sentences. Grammatically, a group of words preceding a sentence's main subject should directly describe the subject; otherwise, that group of words can become a dangling modifier. The following sentences contain dangling modifiers.

- Using an otoscope, her ears were examined for damage.
- Determining the initial estimates, results from previous tests were used.

Even though these sentences are understandable, grammatically they are unacceptable because the first implies that the ears used the otoscope, while the second implies that the results themselves determined the initial estimates. The words that describe a sentence's subject must be sensibly related to the subject, and in these two sentences that is not the case. Although here the intended meaning can be discerned with some minimal work, readers often have a hard time sorting out meaning when modifiers are dangled, especially as sentences grow longer. Revision of these sentences to avoid dangling modifiers involves changing the wording slightly and shuffling sentence parts around so the meaning is more logical.

- Her ears were examined for damage with an otoscope.
- Results from previous tests were used to determine the initial estimates.

Because dangling modifiers lead to unintelligible sentences, avoid them.

Referring to Temperature Measurements (adapted from Schall, 2014a, para. 3)

Degree measures of temperature are normally expressed with the ° symbol rather than with the written word, and a space is inserted after the number but not between the symbol and the temperature scale: The sample was heated to 80 °C. Unlike the abbreviations for Fahrenheit and Celsius, the abbreviation for Kelvin (which refers to an absolute scale of temperature) is not preceded by the degree symbol (e.g., 12 K is correct).

Writing about Numbers (adapted from Schall, 2014a, paras. 4-5)

The rules for expressing numbers are as follows.

- Express statistical and mathematical functions and measured quantities—those involving decimal points, scores, dimensions, degrees, distances, weights, measures, ages, times, and sums of money—in numeral form (e.g., 1.3 seconds, $25,000, 2 amperes).
    - The depth to the water at the time of testing was 16.16 feet.
- Express percentages as follows: use the % symbol preceded by a numeral when referring to an exact number, and spell out the word *percent* (sans italics) when referring to a general size ("a sizable percent of the population"). → Note: this is the APA guideline. General technical writing guidelines recommend using the word *percent*

(sans italics) instead of the symbol (%) in sentences (e.g., 25 percent) and using the symbol (e.g., 25%) in tables to save space.

- Write the numbers zero through nine as words, unless they appear as part of a string of larger related numbers. Write numbers 10 and above as numerals.
    - For this treatment, the steel was heated 18 different times.
- Avoid beginning sentences with numbers. If you must begin a sentence with a number, write out the number.
    - Fifteen new staff members attended the safety training session.
- Treat similar numbers in grammatically connected groups alike.
    - Two dramatic changes followed: four samples exploded and thirteen lab technicians resigned.

If you are not sure about when to use numerals versus words, consult the *Publication Manual of the American Psychological Association* (APA, 2020), the definitive source for APA standards. The APA also provides a number of quick reference guides on its website (https://apastyle.apa.org/instructional-aids/handouts-guides), including one that covers statistics and numbers.

Using Parentheses (adapted from Schall, 2014b)

In general, parentheses are used to identify material that acts as an aside, but in technical writing the rules for using parentheses can be more nuanced. Parentheses may also be used

- To introduce tables or figures within a sentence.
    - In pulse-jet collectors (Figure 3), bags are supported from a metal cage fastened onto a cell plate at the top of the collector.
- To represent converted units.
    - The funnel used for this experiment was 7 in. (17.8 cm) in length.
- When enumerating.
    - The system has three principal components: (1) a cleaning booth, (2) an air reservoir, and (3) an air spray manifold.
- To indicate product manufacturer names.
    - The filtering process involves a 10-mm Dorr-Oliver cyclone (Zefon International).
- To introduce an acronym after it has been written out.
    - Units will be expressed in cubic feet per minute (cfm).

If parentheses enclose a full sentence beginning with a capital letter, then the end punctuation for the sentence falls inside the parentheses.

- Typically, suppliers specify air to cloth ratios of 6:1 or higher. (However, ratios of 4:1 should be used for applications involving silica or feldspathic minerals.)

If the parentheses indicate a citation at the end of a sentence, then the sentence's end punctuation comes after the parentheses are closed.

- In a study comparing three different building types, respirable dust concentrations were significantly lower in the open-structure building (Hugh et al., 2005).

Finally, if the parentheses appear in the middle of a sentence (as in this example), then any necessary punctuation (such as the comma that appeared just a few words ago) is delayed until the parentheses are closed.

Attributing Sources

In addition to document organization, page design, and text construction specifications, APA also establishes standard conventions for citation and referencing. A writer uses in-text citations to attribute source information within the body of a report and reference list entries to provide the full publication details for the sources cited in text.

Using In-Text Citations

Although other sections of this textbook cover in-text citations in some detail, we will review their construction and conventions for use here to reinforce the importance of source attribution skills to your college and professional careers. Figure 18, a multipage handout adapted from the Robert Gillespie Academic Skills Centre, University of Toronto Mississauga (n.d.-a, pp. 5-8), provides an overview of APA in-text citations.

As you review the conventions for APA in-text citations, keep in mind the following punctuation rules, which apply to quotation marks placed at the ends of sentences.

- Place commas and periods inside closing quotation marks.
- Place colons and semicolons outside closing quotation marks.
- Place question marks and exclamation points inside closing quotation marks when they are part of the material being quoted and outside the closing quotation marks when they are not part of the material.

Did you use someone else's information or ideas in your paper? You need to give them credit by using an in-text citation.

The APA format uses an author-date method for citing sources in the body of an essay. In other words, when you quote, paraphrase, or refer to another text, you must include a reference to the source's author's last name and year of publication.

For some in-text citations, you need only the author's last name and the year of publication. If you quote a source directly, you must also include the page number for the reference.

Short Quotations:

If the quotation is less than 40 words long, it should be incorporated into your text and enclosed by double quotations marks [" "]. If possible, introduce your short quotation with a signal phrase that includes the author's name followed by the publication date in parentheses. For example:

> Scott (2016) concludes, "changes in elearning beliefs and practices typically occur following critical unmet expectations" (p. 596).

If you do not name the author in your signal phrase, you must include that information in your parenthetical citation immediately following the quotation. For example:

> A recent longitudinal study in an Australian university found that "changes in elearning beliefs and practices typically occur following critical unmet expectations" (Scott, 2016, p. 596).

Put the citation in the same sentence in which the quotation appears.

Long quotations:

Quotations that are over 40 words long must be placed in the paper as a block of text set apart from the rest of the paragraph. Block quotations should start on a new line, with the whole block indented 0.5 inches from the left margin, and double spaced. Do

not use quotation marks. Your citation should come at the end of the quotation:

> A novel observation about university teachers was made:
>
> > This study found when critical unmet expectations occur, teachers reflect on their beliefs and practices, and consider alternatives. However, teachers have sets of beliefs and practices, only some of which they wish to change in specific contexts…teachers altered their practices for different units of study according to their beliefs about those contexts, rather than overarching beliefs. (Scott, 2016, p. 595)

Paraphrase and Summary:

When you paraphrase or summarize another source, you must acknowledge that source. If you paraphrase a claim that is made on a specific page in the source, then it is helpful to include a page number in your citation.

> Scott (2016, p. 596) suggests that teachers change their teaching practice in response to unexpected student behaviours.

Common Types of In-Text Citations

Work by Two Authors:

Name both authors. Use the word "and" if the authors are named in a signal phrase in the text, but use the ampersand [&] if they are named in parentheses.

With signal phrase

> According to Eom and Ashill (2018), their holistic model of e-learning success shows that learning outcomes heavily depend upon dialog and self-regulatory behaviours (p. 63).

Without signal phrase

> The study concludes that its holistic model of e-learning success shows that learning outcomes heavily depend upon dialog and self-regulatory behaviours (Eom & Ashill, 2018, p. 63).

Work by Three or More Authors:

Use the first author's last name and the phrase "et al." in the signal phrase or in the parentheses.

With signal phrase

> The study by Islam et al. (2015) concludes that learning style and culture, e-learning pedagogy, technology, technical training, and time management are the five major challenge areas higher education institutions need to address (p. 109).

Without signal phrase

> Learning style and culture, e-learning pedagogy, technology, technical training, and time management are the five major challenges higher education institutions need to address (Islam et al., 2015, p. 109).

Work with an Unknown Author:

Use the title of the source. Make sure you properly format the title. The titles of books and reports are italicized or underlined. The titles of chapters, articles, and web pages are put in quotation marks.

> The international trade of waste electronics is illegal under the terms of the Basel Ban ("Briefing Paper," 2007).

Work by an Organization or Agency:

Use the organization's name as if it were an author.

With signal phrase

> The Canadian International Development Agency (2006) notes that . . .

Without signal phrase

> Since 1996, Canada's budget for international development has increased by 10% (Canadian International Development Agency, 2006).

Two or More Works by the Same Author in the Same Year:
Use lower-case letters (a, b, c) with the year to distinguish between entries.

Smith's study (2007a) suggests that…

Works by Authors with the Same Last Name:
Use the first initial of the author.

Gender performance can be understood as a series of actions that produce the illusion of a stable gender identity (J. Butler, 1990).

Lilith is saved by an alien species called the Oankali (O. Butler, 2005).

Two or More Works in the same parentheses:
Separate each entry with a semi-colon. List the entries in alphabetical order.

… as many theorists have noted (Morris, 1992; Razack, 2005).

Secondary (or Indirect) Sources:
When you need to use a source cited in another source, name the original in your signal phrase and include the secondary source in both your in-text citation and your references list. Include the primary source's year of publication if you know it. If you have not, yourself, directly consulted the primary source, do not include it in your reference list (even if you cited its year of publication).

Dorosz (1973) argues that . . . (as cited in Smith, 2008, p. 123).

Figure 18. An overview of APA in-text citations

For expanded coverage of APA in-text citations, refer to the *Publication Manual of the American Psychological Association* (APA, 2020) or the APA website (https://apastyle.apa.org/instructional-aids/handouts-guides).

The previous figure mentions pairing signal phrases with in-text citations, and you may recall from previous reading that writers use signal phrases to integrate source material into documents in a cohesive way. Signal phrases, in turn, convey various circumstances, as Figure 19, adapted from the Academic Writing Help Centre, Student Academic Success Services, University of Ottawa (2016), points out.

Comparison

To compare ideas presented in two or more sources, use signal phrases like:

the author alludes to	the author draws on	the author objects to
the author cites	the author elaborates on	the author refers to
the author discusses	the author expresses	the author reflects on

Debate

To specify the position of the author that you are quoting, use signal phrases like:

the author argues	the author considers	this study justifies
the author believes	this study denounces	the author maintains
the author claims that	the author insists	the author stresses

Explanation

To present the theories or concepts on which your paper is based, use signal phrases like:

the author clarifies	the author establishes	the author presents
the author defines	this study indicates	the author proposes
the author describes	the author mentions	the author specifies

Results

To present the conclusions reached by the author that you are quoting, use signal phrases like:

the author concludes	this study emphasizes	the author recommends
this study confirms	this study points to	this study reveals
the author determines	this study proves	this study shows

Summary

To describe a study, use signal phrases like:

the author analyzes	the author examines	this study is about
this study concentrates on	the author explores	the author is interested in
the author evaluates	this study focuses on	the author studies

Figure 19. A variety of signal phrases and their circumstances for use

You may use such signal phrases along with in-text citations and accompanying reference list entries to cohesively incorporate source material into a research report.

Constructing References

Reference list entries accompany in-text citations in an APA-style research report. Figure 20, a multipage handout adapted from Reynolds Community College Libraries (2020a), provides an overview of reference formats for various source types.

General guidelines	• Authors' names are formatted as follows: Last Name, Initials. (e.g., Smith, J.B.) The rules for authors' names apply to all source types. • Titles for all source types (e.g., articles, books, chapters, journals, magazines & newspapers) are formatted in sentence case and in italics. • If the source has no date, document the following in the date field: (n.d.). • When the source has two to 20 authors, an ampersand (&) goes before the last author. • When listing page numbers, use p. for a single page (example: p. 32) and pp. for a page range (example: pp. 12-27). • For book editions other than the first, place the edition in parentheses after the title. Do not italicize the edition field. Example: *Raising children* (6th ed.) • Long URLs and DOIs can be shortened by using a URL shortener or a DOI shortener.
Book **one author**	**Author Last Name, First & Middle initials. (Year of publication). *Book title*. Publisher.** Goldsworthy, A. (2016). *Pax Romana: War, peace, and conquest in the Roman world*. Yale University Press.
Book **two to 20 authors**	**When there are two to 20 authors, all authors must be listed. An ampersand (&) precedes the name of the last author.** Greig, A., Taylor, J., & MacKay, T. (2013). *Doing research with children: A practical guide*. Sage.
Edited book	**Editor Last Name, First & Middle initials. (Ed.). (Year of publication). *Book title*. Publisher.** Shotton, M. A. (Ed.). (1959). *Psychology: A study of science*. McGraw-Hill. Stevens, A. C., & Crosby, J. (Eds.). (1976). *Principles of psychology.* Greenleaf Press.
Chapter or introduction or foreword /afterword in an anthology or edited book	**Author Last Name, First & Middle initials. (Year of publication). Chapter/Section title. In Editor Initials Last Name (Ed.), *Book title* (page number[s] using p. or pp.). Publisher.** Leigh, J. A., & Brewster, A. E. (2008). Primary language acquisition. In J. Carruthers & K. McNeil (Eds.), *Developmental psychology* (pp. 312-337). Ivory Publications. Ryder, W. & Miller, S. (2006). Introduction. In E.M. Harris (Ed.), *Consequences of illiteracy* (2nd ed., Vol. 1, pp. 1-2). Essex Press.
Book volume(s) in a multivolume work	**Author Last Name, First & middle initials. (Date[s]). *Book title* (Vol[s].). Publisher**. Gutkind, L. (Ed.). (2007). *The best creative nonfiction* (Vol. 1). Creative Nonfiction Foundation.

Entry in an encyclopedia (print or online)	**Author(s) Last Name(s), First & middle initials. (Year of publication). Title. In Editor Initials Last Name (Ed.), *Encyclopedia title* (ed., Vol., page number[s] using p. or pp.). Publisher.** Laberge, M. (2015). Gastric bypass. In J.L. Longe (Ed.), *The Gale encyclopedia of medicine* (5th ed., Vol. 4, pp. 2100-2105). Gale. Tobacco. (2009). In P. Korsmeyer & H. R. Kranzler (Eds.), *Encyclopedia of drugs, alcohol & addictive behavior* (3rd ed., Vol. 4, pp. 95-130). Macmillan Reference USA.
Book **other than the 1st edition**	**The edition goes in parentheses after the title. Notice the edition is not italicized.** Kenney, L.W., Wilmore, J., & Costill, D. (2015). *Physiology of sport and exercise* (6th ed.). Human Kinetics.
E-book from a database	**Author Last Name, First & Middle initials. (Year of publication). *Book title*. Publisher.** Gillick, M. R. (2017). *Old and sick in America: The journey through the health care system*. The University of North Carolina Press. **Note:** Ebooks found in a database should be treated as print works. Do not list the database name or the URL of the eBook in the database or publisher's home page. Only include database information in the reference if the eBook comes from a database that publishes original, proprietary content. For an explanation of this change, click here.
E-book not from a database	**Author Last Name, First & Middle initials. (Year of publication). *Book title*. URL (can be shortened with a short-URL service)** Christian, B., & Griffiths, T. (2016). *Algorithms to live by: The computer science of human decisions*. Henry Holt and Co. https://amzn.to/36eIjnH
Journal article **more than 20 authors**	**List the names of the first 19 authors, then insert an ellipsis, and then the name of the last author.** Kalnay, E., Kanamitsu, M., Kistler, R., Collins, W., Deaven, D., Gandin, L., Iredell, M., Saha, S., White, G., Woollen, J., Zhu, Y., Chelliah, M., Ebisuzaki, W., Higgins, W., Janowiak, J., Mo, K.C., Ropelewski, C., Wang, J., Leetmaa, A.,… Joseph, D. (1996). The NCEP/NCAR 40-year reanalysis project. *Bulletin of the American Meteorological Society, 77*(3), 437-471. https://doi.org/fg6rf9
Journal or magazine article **includes DOI**	**Author Last Name, First & Middle initials. (Year). Article title. *Journal Title, volume* #(issue #), page # range. https://doi.org/.........** McCauley, S.M., & Christiansen, M.H. (2019). Language learning as language use: A cross-linguistic model of child language development. *Psychological Review, 126*(1), 1-51. https://doi.org/10.1037/rev0000126 Bergeson, S. (2019, January 4). Really cool neutral plasmas. *Science, 363*(6422), 33-34. https://doi.org/10.1126/science.aau7988

Journal, magazine or newspaper article **no DOI** **from database or in print**	**Author Last Name, First & Middle initials. (Date). Article title. *Periodical Title, volume #*(issue #), page # range.** Anderson, M. (2018). Getting consistent with consequences. *Educational Leadership, 76*(1), 26-33. Goldman, C. (2018, November 28). The complicated calibration of love, especially in adoption. *Chicago Tribune.* Hess, A. (2019). Cats who take direction. *The New York Times*, C1. Weir, K. (2017, January). Forgiveness can improve mental and physical health. *Monitor on Psychology, 48*(1), 30. **Notes:** Journal and magazine articles without a DOI # including newspaper articles found in a database should be treated as print works. Do not list the database name or the URL of the article in the database or publisher's home page. Only include database information in the reference if the source comes from a database that publishes original, proprietary content such as *UpToDate*. For an explanation of this change, click here. • For newspapers or magazines, the date field includes the month and the day if available. For newspapers, include the section # if given.
Journal, magazine or newspaper article **no DOI** **from open web**	**Author Last Name, First & Middle initials. (Date). Article title. *Periodical title, volume #*(issue #), page # range. URL** Ahmnann, E., Tuttle, L.J., Saviet, M., & Wright, S.D. (2018). A descriptive review of ADHD coaching research: Implications for college students. *Journal of Postsecondary Education and Disability, 31*(1), 17-39. https://www.ahead.org/professional-resources/publications/jped/archived-jped/jped-volume-31 Bustillos, M. (2013, March 19). On video games and storytelling: An interview with Tom Bissell. *The New Yorker*. https://www.newyorker.com/books/page-turner/on-video-games-and-storytelling-an-interview-with-tom-bissell Guarino, B. (2017, December 4). How will humanity react to alien life? Psychologists have some predictions. *The Washington Post*. https://www.washingtonpost.com/news/speaking-of-science/wp/2017/12/04/how-will-humanity-react-to-alien-life-psychologists-have-some-predictions **Notes:** • For newspapers or magazines, the date field includes the month and the day if available. For newspapers, include the section # if given.
Blog post	**Author Last Name, First & Middle initials. (Date). Article title. *Blog Title*. URL** Klymkowsky, M. (2018, September 15). Can we talk scientifically about free will? *Sci-Ed*. https://blogs.plos.org/scied/2018/09/15/can-we-tal-scientifically-about-free-will/

General guidelines for web pages	**Note:** • If you cite multiple pages from a website, create a reference for each. • To mention a website in general, do not create a reference or an in-text citation. Instead, give the name of the website in the text, and include the URL in parentheses. **Example**: *PBS Kids* (https://pbskids.org/games/) provides many games for children.
Web page **one author**	**Author Last Name, First & Middle initials. (Date). *Article title*. Website name. URL** Martin Lillie, C.M. (2016, December 29). *Be kind to yourself: How self-compassion can improve your resiliency.* Mayo Clinic. https://www.mayoclinic.org/healthy-lifestyle/adult-health/in-depth/self-compassion-can-improve-your-resiliency/art-20267193
Web page **group author**	**Group author. (Date). *Article title*. URL** World Health Organization. (2018, March). *Questions and answers on immunization and vaccine safety.* https/www.who.int/features/qa/84/en
Webpage **from** **news website**	**Author Last Name, First & Middle initials. (Date). *Article title.* Website name. URL** Avramova, N. (2019, January 3). *The secret to a long, happy, healthy life? Think age-positive.* CNN. https://www.cnn.com/2019/01/03/health/respect-toward-elderly-leads-to-long-life-intl/index.html **Note:** Use this format for articles published in online news sources such as CNN, HuffPost, Reuters, Salon, BBC News, Vox, etc.
Web page **no author**	***Web page title*. (Date). Site Name. URL** *Tuscan white bean pasta*. (2018, February 25). Budget Bytes. https://www.budgetbytes.com/ tuscan-white-bean-pasta/
Web page **no date**	**Author Last Name, First & Middle initials. (n.d.). *Web page title*. Site Name. URL** ASPCA. (n.d.). *Destructive chewing.* https://www.aspca.org/pet-care/dog-care/common-dog-behavior-issues/destructive-chewing **Note:** When the author and the site name are the same, omit the site name.
Entry in an online encyclopedia, dictionary or thesaurus, with group author	**Group Author. (Date). Entry title. In *Title of work.* Retrieved date, from URL** American Psychological Association. (n.d.). Positive transference. In *APA dictionary of psychology*. Retrieved August 31, 2019, from https://dictionary.apa.org/positive-transference **Notes:** • When an online reference work is continuously updated and the versions are not archived, use "n.d." as the year of publication and include a retrieval date. • If there is no group author, start with the title of the entry.

Facebook post	**Author Last Name, First & Middle initials (or Name of Group, or Name of Group [Username]). (Date). *Content of the post up to the first 20 words* [Description of audiovisuals]. Facebook. Post URL (can be shortened with a service such as Bitly)** Gaiman, N. (2018, March 22). *100,000+ Rohingya refugees could be at serious risk during Bangladesh's monsoon season. My fellow UNHCR Goodwill Ambassador Cate Blanchett is* [image attached] [Status update]. Facebook. http://bit.ly/2JQxPAD **Note:** This format can also be used for posts in other social media services.
Movie	**Last Name, First & Middle initials of Director/Producer/Host/Artist/etc. (Director/Producer/Host/Artist/etc.). (Year). Title of work [Description]. Production Company (or companies). URL if applicable** Forman, M. (Director). (1975). *One flew over the cuckoo's nest* [Film]. United Artists.
TV series **episode or webisode**	**Last name, First & Middle initials of writer(s) and director(s). (Year, month, date). Episode title (season and episode) [Description]. In names of executive producers, Series title, Production Company (or companies).** Barris, K. (Writer & Director). (2017, January 11). Lemons (Season 3, Episode 12) [TV series episode]. In K. Barris, J. Graff, A. Anderson, E.B. Dobbins, L. Fishburne, & H. Sugland (Executive Producers), *Black-ish*. Wilmore Films; Artists First; Cinema Gypsy Productions, ABC Studios. **Note:** Include writers and the director for the episode. Include the contributor roles in parentheses after each contributor's name.
Streaming video **(YouTube, Vimeo)**	**Author Last Name, First & Middle initials. [User Name]. (Year, month, date). Title of video [Video]. Site. URL** Fogarty, M. [Grammar Girl]. (2016, September 20). *How to diagram a sentence* (absolute basics) [Video]. YouTube. https://youtu.be.com/deiEY5Yq1ql Cutts, S. (2017, November 24). *Happiness* [Video]. Vimeo. https://vimeo.com/244405542 Fosha, D. (Guest Expert), & Levenson, H. (Host). (2017). *Accelerated experiential dynamic psychotherapy (AEDP) supervision* [Film; educational DVD]. American Psychological Association. https://www.apa.org/pubs/videos/4310958.aspx **Note:** For the sake of retrievability, the person or group who uploaded the video is credited as the author, even if they did not create the work.
Podcast episode	**Author Last Name, First & Middle initials. (Role). (Year, month, date). Episode title (episode No.) [podcast type]. In Title of podcast series. Site. URL** Glass, I. (Host). (2011, August 12). Amusement park (No. 443) [Audio podcast episode]. In *This American life*. WBEZ Chicago. https://www.thisamericanlife.org/radio-archives/episode/443/amusement-park

Photograph	**Author Last Name, First & Middle initials. (Year). Title of photograph [Photograph]. Site. URL** McCurry, S. (1985). *Afghan girl* [Photograph]. National Geographic. https://www.nationalgeographic.com/magazine/national-geographic-magazine-50-years-of-covers/#/ngm-1985-jun.jpg **Note:** Use this format to cite photographs or other artwork not connected to a museum. To reproduce a photograph, permission and/or a copyright attribution may be necessary in addition to the reference.
Artwork in a museum or on a museum website	**Author Last Name, First & Middle initials. (Year). Title of work [Medium or format]. Location where the art resides. URL if applicable.** Delacroix, E. (1826-1827). *Faust attempts to seduce Marguerite* [Lithograph]. The Louvre, Paris, France. Wood, G. (1930). *American gothic* [Painting]. Art Institute of Chicago, IL, United States. https://www.artic.edu/aic/collections/artwork/6565 **Notes:** • Use this format to cite all types of museum artwork, including paintings, sculptures, photographs, prints, drawings, and installations; always include a description of the medium or format in square brackets after the title. For untitled art, include a description in square brackets in place of a title.
Classical and religious works	**Notes:** • Religious works (e.g., Bible, Qur'an), classical works (e.g., ancient Greek works), and classical literature (e.g., Shakespeare's works) are cited like books. • Religious works are treated as having no author. An annotated version of a religious work would be treated as having an editor. • The year of publication of a religious work may be unknown or in dispute, and in these cases, the year is not part of the reference. If the religious work has been republished, then the republished dates are included in the reference. Shakespeare, W. (1995). *Much ado about nothing* (B.A. Mowat & P. Werstine, Eds.). Washington Square Press. (Original work published 1623) King James Bible. (2017). *King James Bible Online*. https://kingjamesbibleonline.org/ (Original work published 1769)
In-person or telephone interviews, conversations class notes, letters, emails	**Personal communications are cited in text only.** T. Bass (personal communication, May 1, 2020) advised against cramming for exams. Patients can call their doctors to discuss options (M. Li, personal communication, May 25, 2020). "Reviewing study material daily helps to ensure better performance on exams" (I.M. Bates, personal communication, June 15, 2020).

Figure 20. APA referencing formats for various types of sources

If you require further detail about APA referencing formats, consult the *Publication Manual of the American Psychological Association* (APA, 2020) or the APA website (https://apastyle.apa.org/instructional-aids/handouts-guides).

How does an investigator report research in an ethical manner?

Research outcomes must be reported in an ethical manner to be credible and useful. Take into account that ethical considerations affect the development of research reports in numerous ways, as forthcoming paragraphs, which are adapted from Hamlin et al. (2017a, pp. 98-102), explain.

Foregrounding or Downplaying Key Information

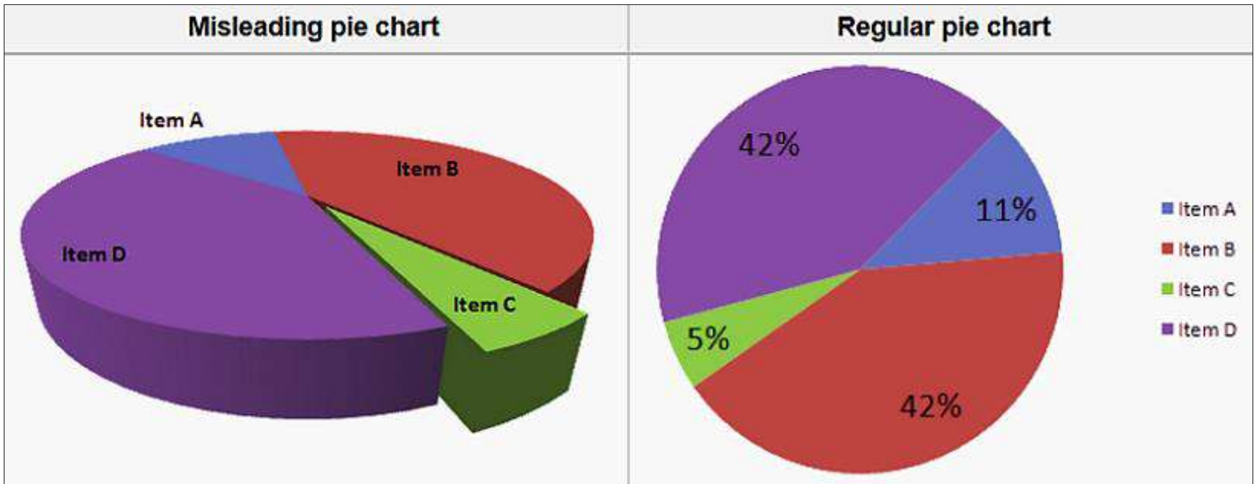
A writer's choices about how to present content in a report can affect readers' understanding of the relative weight or seriousness of the information. For example, hiding some crucial piece of information in the middle of a long paragraph and burying that paragraph deep in a lengthy document de-emphasizes the information. On the other hand, placing a minor point in a prominent spot—for instance, at the top of a bullet list in a report's executive summary—tells readers it is crucial.

Omitting Research that Does Not Support a Project Idea

When compiling a report, a writer might discover conflicting data that does not support the research project's goals. For example, let us imagine the writer's small company has problems with employee morale. Research shows that bringing in an outside expert, someone who is unfamiliar with the company, has the potential to effect the greatest change in addressing the issue. The writer discovers, however, that hiring such an expert is cost prohibitive. If the writer leaves this information out of the report, its omission encourages the employer to pursue an action that is not feasible.

Distorting Visual Information

When writers present information visually in reports, they must be careful not to misrepresent reality. To illustrate this point, consider the pie charts in Figure 21, adapted from Hamlin et al. (2017a, p. 100). The data in each pie chart is identical, but the chart on the left presents information in a misleading way.



In the misleading pie chart, Item C appears to be at least as large as Item A, whereas in actuality, it is less than half as large.

Figure 21. Identical data presented two different ways in pie charts

Imagine that these pie charts represent donations received by four candidates running for city council. When looking at the pie chart on the left, the candidate represented by the green slice labeled Item C might think she received more donations than the candidate represented by the blue slice labeled Item A. In fact, if we look at the same data in the differently oriented pie chart on the right, we can see that Item C represents less than half of the donations than those for Item A. Thus, a simple change in perspective can alter the perception of an image.

Relying on Limited Source Information

A thorough research report compiles information from a variety of reliable sources in order to examine a topic from multiple angles. Using a variety of sources helps a report writer avoid the potential bias that can occur when relying on a limited pool of experts. Imagine, for instance, that a writer is composing a report on the real estate market in Central Oregon. The author would be ill-advised to collect data from only one relator’s office. While a particular office might have access to broad data on the real estate market, he/she runs the risk of appearing biased by exclusively selecting material from this one source. Collecting information from multiple brokers would demonstrate thorough and unbiased research.

Documenting Sources in an Inaccurate Manner

When report writers document sources, they are expected to accurately and consistently acknowledge the origin of outside information via use of in-text citations and accompanying reference list entries. Listing a source on a reference page without an in-text citation misleads readers: readers assume that the listed item is a source when in fact it is not or that the writer has failed to mark the boundaries between his/her own ideas and source information in text.

Note that many documentation problems occur because writers do not clearly distinguish between their own ideas and source material.

Violating Academic Integrity

Academic integrity violations, such as those mentioned in the previous paragraph, can destroy the credibility of a research report and its writer's reputation. This reality holds true in both academia and in the workplace. Using information adapted from Student Academic Success Services, Queen's University (2018a, pp. 4-7), Table 3 explores violations of academic integrity that can affect research reports and other types of knowledge work.

Table 3. Types of academic integrity violations and how to avoid them

Violation	Examples of Violation	How to Avoid the Violation
Plagiarism: Using someone else's ideas, phrasing, or visuals without proper acknowledgement and/or representing some or all of another author's content as your own, either intentionally or inadvertently	• Copying and pasting from the internet, printed material, or another source and failing to provide appropriate acknowledgement • Copying from another student • Providing a reference but not using quotation marks when you take a sentence from another writer's article • Quoting, paraphrasing, or summarizing material in an assignment without appropriately acknowledging it • Paraphrasing or summarizing so closely that most of the phrasing resembles that of the original source • Submitting the same piece of work in more than one course without the permission of the instructors	• Understand and follow standard documentation styles, such as APA • Learn how to take effective notes from lectures and texts • Plan ahead to make sure you have enough time to complete your assignments on your own • Properly integrate sources with your own insights so it is clear which sources you consulted to support and supplement your own discussion
Use of unauthorized materials: Using resources without permission	• Possessing or using unauthorized study materials or aids during a quiz or test • Copying from another student's quiz or test paper • Using an unauthorized calculator or other aid during a quiz or test • Removing materials from the library without authorization	• Understand the course material and expectations • Prepare effectively for quizzes and tests

Facilitation: Deliberately enabling another person's breach of academic integrity	• Knowingly allowing someone else to copy your paper, assignment, quiz, test, or other coursework • Buying papers, assignments, quizzes, tests, or other coursework and submitting them as your own • Selling papers, assignments, quizzes, tests, or other coursework • Posting quizzes or tests on course assistance websites (note that this behavior may also constitute a copyright violation—a legal infringement—if the course handouts or other materials are copyrighted)	• Understand your professor's expectations for all coursework • Make sure you have enough time to complete coursework • Use integrity when collaborating with others
Falsification: Misrepresenting yourself	• Creating or altering a transcript or other official document • Impersonating someone in a course, test, or quiz • Falsifying or fabricating research data	• Understand expectations and plan ahead • Discuss academic challenges with your instructor, advisor, or school counselor
Forgery: Submitting documents that are entirely fraudulent	• Forging medical notes • Forging transcripts	• Understand expectations and plan ahead • Discuss academic challenges with your instructor, advisor, or school counselor

The following list of frequently asked questions, adapted from Student Academic Success Services, Queen's University (2018a, pp. 10-11), may help to clarify lingering uncertainties about the information presented in Table 3.

- Is it true that if I paraphrase from a source, I do not have to give credit?
    - This is not true. If you use anyone else's ideas, words, or content in an assignment, you must give appropriate credit.
- Is it true that as long as I provide a citation when I copy something, I am not plagiarizing?
    - Providing a citation is a start, but you must add quotation marks if you are copying someone's content word for word.
- Am I allowed to resubmit previous assignments since I own them?
    - No because this constitutes self-plagiarism. When you are given an assignment, you are expected to use original effort to complete it.

- Since my instructor did not ask for sources, do I need to include any?
    - Just because your instructor did explicitly ask for sources, this is not an excuse to avoid giving proper credit. To avoid plagiarism, you must acknowledge your sources.
- Is it okay if I did not know that I was plagiarizing/violating other aspects of academic integrity?
    - Not knowing is not an excuse, so you should familiarize yourself with forms of academic dishonesty and school policies and talk with your instructor if you still have questions.
- Is it alright to share information with friends when working on an assignment?
    - If the work is meant to be independent, you are violating academic integrity standards by discussing answers with others. If your instructor does not address the issue of collaborative work, it is your responsibility to find out whether such work is acceptable rather than simply assuming it is.
- Am I abiding by academic integrity standards if I buy a paper online and submit it for a course?
    - The act of purchasing a paper for submission is a deliberate breach of academic integrity standards and constitutes cheating.
- Am I abiding by academic integrity standards if I ask a family member or friend to complete a paper or assignment for me and I submit that material for a class?
    - Submitting coursework that a family member or friend completed for you is a deliberate breach of academic integrity standards and constitutes cheating.

Academic integrity violations take a variety of forms, as this textbook section makes clear, and a report writer has an ethical obligation to avoid all of them.

Plagiarism can be a particularly pernicious problem in a research report because misrepresented research data can affect subsequent studies that build on the report's foundation. The information below, adapted from Student Academic Success Services, Queen's University (2018b, pp. 1-3), provides detailed guidance for how to prevent plagiarism.

- You must document when
    - Using or referring to someone else's words, ideas, or content from a journal, book, newspaper, magazine, textbook, song, TV program, film, webpage, letter, email, advertisement, speech, dictionary, or other medium.
    - Using data collected during an interview.

    - Copying the exact words or a unique phrase from somewhere.
    - Reprinting any tables or figures.
- You do not need to document when
    - Writing about your own experiences, insights, thoughts, or conclusions regarding a subject.
    - Using common knowledge (folklore, commonsense observations, shared information within your field of study or cultural group).
    - Compiling generally accepted facts.
    - Writing up your own experimental research results.
- Material is likely common knowledge if
    - You find the same information undocumented in several other sources.
    - You think it is information your readers already know.
    - Anyone could easily find the information with general reference sources, such as encyclopedias or dictionaries.
- When paraphrasing and summarizing
    - Write your version without looking at the original text so you rely only on your memory.
    - Rewrite key ideas using different words and sentence structures than those used in the original source.
    - Check your version against the original for accuracy. Also look for mistakenly borrowed phrases.
    - Introduce the paraphrase or summary with a phrase crediting the source.
    - Cite and reference the source.
- When quoting
    - Use quotations sparingly: an excessive number can affect your credibility and interfere with your style.
    - Enclose the quoted material in quotation marks.
    - Indicate added phrases with brackets and omitted text with ellipses.
    - Introduce the quotation with a phrase crediting the source.
    - Cite and reference the source.

An ethical writer avoids plagiarism and its destructive consequences by keeping the above points in mind when producing a report.

Chapter Conclusion

Planning, carrying out, and reporting research requires considerable time and effort, as this chapter makes clear. In return, a research project offers an opportunity to discover new things and activate a valuable skill set that you will hone throughout your time in academia and beyond.

Activity: What do you know about academic integrity standards?

To test your knowledge of academic integrity standards, answer the following questions, which are adapted from the Robert Gillespie Academic Skills Centre, University of Toronto Mississauga (n.d.-b, p. 3). Provide a rationale for your answers, and be prepared to discuss them in class.

1. Does this scenario constitute plagiarism: composing a paragraph by taking phrases from a number of sources and combining them with words of your own, without using quotation marks or citing the sources?
    a. Yes
    b. No

2. Martin is having difficulty with his chemistry course. He decides to pay for a tutor to teach him the content and help him with his assignments. Could Martin be committing an academic offence?
    a. Yes
    b. No
    c. It depends on the type of tutoring Martin receives

3. Does this scenario constitute plagiarism: paraphrasing a text by replacing a few words with synonyms and citing the source?
    a. Yes
    b. No

4. Laura is taking a math class that her friend previously took. Laura's course syllabus says that calculators are authorized test aids, but her friend tells her that calculators are not allowed in math exams. Is Laura allowed to use a calculator during her math tests?
    a. Yes
    b. No

5. Does this scenario constitute cheating: buying a research report and submitting parts of it as your own?
    a. Yes
    b. No

6. Petr wants to make sure his cellphone is safe during his test. He keeps it in his pocket during the test, but does not use it. Is Petr committing an academic integrity offence?
    a. Yes
    b. No

7. Does this scenario constitute plagiarism: omitting an in-text citation and reference list entry when incorporating common knowledge information into a document?
    a. Yes
    b. No

8. Hafsa gets a doctor's note to excuse her absence from an exam. She notices that the doctor spelled her name incorrectly. She fixes the spelling and submits the note. Is Hafsa committing an academic offence?
    a. Yes
    b. No

9. Does this scenario constitute plagiarism: giving a reference but omitting quotation marks when incorporating one sentence from a source text into your own document.
    a. Yes
    b. No

10. Darya's essay contains only her own writing and a few quotes. She does not include in-text citations, but all her sources are listed on the end-of-text reference page. Is Darya committing an academic offence?
    a. Yes
    b. No

11. Does this scenario constitute plagiarism: incorporating material that you created or gathered yourself, such as photos or data from field research, into a document without citing/referencing it?
    a. Yes
    b. No

12. After hearing from a friend how helpful course assistance websites can be, Paul decides to upload a quiz he took for a class to one of these sites in order to gain access to its content. Is Paul committing an academic offense?
    a. Yes
    b. No

Homework: How are research and research writing skills used in your field of interest?

What is your career interest? How might a professional working in that career use research and research writing skills in the workplace? Consult the websites listed in the "Understanding Disciplinary Expectations for Writing" chapter of this textbook to research your response to this question, and work with a university librarian if you need to locate additional sources of credible information. Afterwards, write an APA-style report to document the processes and findings of your research project. Use the guidance in this chapter to organize, design, and construct your report and to cite and reference its sources. This exercise is adapted from *Successful Writing* (2012, para. 11).

After you have drafted your report, use the handouts "Eliminating Wordiness" (Student Academic Success Services, Queen's University, 2018c) and "APA Checklist" (Excelsior Online Writing Lab, 2020a), provided below, to refine your work.

Student Academic Success Services:
Learning Strategies and the Writing Centre

Queen's University

Eliminating Wordiness

1. Avoid using a phrase when a word will do:

at this point in time	=	now
has the ability to	=	can
in this day and age	=	today
is aware of the fact that	=	knows
due to the fact that	=	because
the majority of	=	most
on a daily basis	=	daily
each and every one	=	all
in close proximity to	=	near

2. Eliminate redundant words:

the reason [why]	the [final] conclusion
[utmost] perfection	enter [into]
[the month of] August	[totally] oblivious
[the colour] green	[past] experience
mix [together]	correct [amount of] change
[viable] alternative	[future] prospects

3. Avoid needless repetition:

In trauma victims, breathing is restored by **artificial respiration**. Techniques of **artificial respiration** include mouth-to-mouth **respiration** and mouth-to-nose **respiration.**

In trauma victims, breathing is restored by artificial respiration, either mouth-to-mouth or mouth-to-nose.

4. Drop most "There is" and "There are" sentence openers:

Dropping these openers places key words at the end of the sentence where they are best emphasized:

X There are serious consequences in failing to yield right of way.
√ Failing to yield right of way can have serious consequences.

5. Avoid some "It" sentence openers:

X It gives me great pleasure to introduce our speaker.
√ I am pleased to introduce our speaker.

6. Delete needless "to be" constructions:

Forms of the verb "to be" (is, was, are, etc.) often add clutter without adding meaning: I find some of his stories [to be] amusing.

7. Avoid weak, wordy verbs:

is in conflict with	=	conflicts
make an assumption	=	assume
come to a conclusion	=	conclude
take action	=	act
make a decision	=	decide
come to the realization	=	realize

8. Eliminate needless prepositions:

X Some members of the committee made these recommendations.
√ Some committee members made these recommendations.

X A man by the name of Godot is waiting for you.
√ A man named Godot is waiting for you.

9. Use "that" and "which" sparingly:

This [is a] writing problem [that] is easy to correct.
The book [, which is] about Hemingway [,] is fascinating.

10. Fight noun addiction.

Nouns manufactured from verbs (nominalizations) make your sentences weak and wordy. Weak verbs and needless prepositions often accompany nominalizations:

X Give consideration to the possibility of changing jobs.
√ Consider changing jobs.

11. Nominalizations can also lead to vagueness by hiding the agent of the action:

X A need for immediate action exists.
√ We must act immediately.

12. Make negatives positive:

did not succeed	=	failed
does not have	=	lacks
did not prevent	=	allowed

APA Checklist

Excelsior Online Writing Lab

This checklist will help you ensure that your paper meets the APA requirements. The page number(s) listed in each item refers to where this information may be found in the Publication Manual of the *American Psychological Association*, 7th ed.

- [ ] **1. Margins**

  My margins are 1 inch at the top, bottom, left, and right of each page. p. 45

- [ ] **2. Typeface**

  I have used a clear, accessible font and have used the same font throughout my paper. Options include but are not limited to sans serif fonts like 11-point Calibri, 11-point Arial, and 10-point Lucida and serif fonts like 12-point Times New Roman or 11- point Georgia. p. 44

- [ ] **3. Line Spacing**

  My lines of text are all double spaced throughout my paper. There is an exception on my title page where there is an extra double space between my title and the rest of the information on my title page. There are also exceptions where I may single space in a table body, figure, footnotes, and equations. p. 45

- [ ] **4. Alignment**

  My text is aligned at the left margin but ragged at the right margin. This is called flush-left style. p. 45

- [ ] **5. Text Spacing**

  I have inserted one space after punctuation marks, including those at the ends of sentences. I have inserted no spaces between internal periods in abbreviations, such as U.S. and a.m. p. 154

- [ ] **6. Indenting for Paragraphs**

  I have indented the first line of every paragraph 0.5 inches, and I have used the tab key for consistency. The remaining lines of my paragraph are left aligned. p. 45

- [ ] **7. Quotation Marks**

  I have placed quotation marks around all directly quoted material AND any article or chapter titles when these are mentioned in the text. NOTE: These titles are not placed in quotation marks in the References list. pp. 157-158

EXCELSIOR COLLEGE

8. Italics

I have placed titles of longer works, such as books and journals, in italics in both my text and in my references list. pp. 170-171

Excelsior Online Writing Lab

9. Title Page Format

My title page includes the following:

- A page number at the top right corner (title page is page 1)
- My title in bold font centered in the upper half of the page
- My name centered two double spaces below my title (this is also referred to as the byline)
- My affiliation (name of my school) centered below my name
- My course name centered below my affiliation
- My instructor's name centered below my course name
- The due date centered below my instructor's name

p. 32

10. Page Number

My page number appears in the top right-hand corner of all of my pages, including my title page. This page number should be created using the header function of my word-processing program and should be flush against the right margin. p. 44

11. Body of Essay Format

I have included an abstract page (if required) and an introduction and conclusion to frame the ideas presented in my body paragraphs. p. 43

12. Headings

I have used at least one level of headings with the first level being centered and in bold with upper- and lower-case letters. If I have used a second level of heading, those headings are aligned on the left and in bold with upper- and lower-case letters. NOTE: The APA manual describes additional level of headings if needed for much longer essays. pp. 47-49

13. Writing Style

I have aimed for a clear, clean writing style and have used first-person pronouns only when necessary and appropriate for my assignment. I have also used the singular "they" as a generic, third-person singular pronoun. pp. 120-121

Excelsior Online Writing Lab

☐ **14. Writing Numbers**

I have used words to express numbers below 10. I have used numerals to express any numbers 10 or greater. I have also used numerals to express any times, dates, or ages. pp. 178-179

☐ **15. Writing Lists**

If I have used numbered, bulleted, or lettered lists, I have ensured that my items are parallel and have reviewed APA guidelines for lists. pp. 189-190

☐ **16. In-Text Citations**

I have documented all summarized, paraphrased, and quoted material with a correct in-text citation and have reviewed in-text citation formatting in the APA manual or the Excelsior OWL. I have placed the period after my citations in all cases, except for block quotes. pp. 253-278

☐ **17. Blocked Quotations**

I have used the block format (indented, no quotation marks, double spaced) for all quotations that are 40 words or more in length. pp. 272-273

☐ **18. Reference**

I have included a full reference for every source cited in my text. I have created a separate references page, centered the word References at the top, placed my references in alphabetical order, and used a hanging indent for all lines after the first line of each entry. I have reviewed the detailed instructions for formatting each reference in the APA manual or the Excelsior OWL.

NOTE: In-text citations and references must correspond. pp. 281-309

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