Situating Research

writers, sources, and strategies

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Chapter 1
Researching in Context
Why Do Academic Writing and Research?

It's a Friday night, and a new movie is premiering. You have seen the movie's previews for weeks leading up to the release, and you have also seen posters at the theater. Because reviewers are able to see the movie early, they have written reviews online and for the newspaper that you have read that day. You have also seen other films by the director and starring actors in the cast. You know, based on this evidence, that the movie will probably be good. It does not disappoint. Later that weekend, you tell your friends about the movie, sharing the best parts, and you make a case that they should see it as well.

This is an example of the types of research that we engage in everyday. From researching the latest MP3 player or cell phone to deciding where to have lunch, you accumulate a great deal of information and are able to make a decision based on the evidence. Furthermore, you will share your own experiences and evidence about these issues with your friends and family, and sometimes you will share this information with many more people through blog posts, Facebook or Myspace entries, and even reviews on websites.

To Solve Problems
Although research for work or school may at times feel very different from the casual research that you do every day, it really is not all that different. Imagine the movie preview is a problem of sorts. It is a topic that intrigues you, but you have been tricked by previews in the past and don't want to spend the money if it's not worth it. **To solve this problem**, you read a few reviews. It is important to read more than one review to get some corroborating evidence about the quality of the movie. Similarly, in professional and school research, you cannot always rely on one or two sources but need multiple sources to help you make a case. In the case of the movie, you know that the director has made good films in the past, so you have some faith in the quality of the picture. You also enjoy the previous work by the actors in the movie, so you feel comfortable that they will entertain. In researching professional and academic topics, it is important to find reputable sources by known scholars and authors and not just random writers who have no credentials.

To Learn and Be Informed
Sometimes you may do research only **to inform yourself** about topics of interest. First of all, you will want to know for yourself if the movie is worth watching before you try to involve your friends in watching it with you. Similarly, academic researchers will often have a question about something that they want to learn more about so they first do research simply to gather information.

To Share New Knowledge
Naturally, after you have informed yourself about movie's quality, you will **share the**

information you gain with others, telling your friends about what you discovered. Obviously, this is not so different from school where you also write to share what you have learned through lecture, studying, and research about a certain subject. Most often you share this information with your professor, but your writing can also be used to share what you have learned with peers in your class. In writing about their research, academic researchers also share what they have learned about a specific research question or problem with their peers, providing answers to shared questions and problems.

To Persuade Others
While sharing information with others is beneficial, it will not mean much to them unless you can persuade them that your research and discoveries are worthwhile, For example, if you want your friends to watch a movie with you, you will need to share your discoveries about the film in a way that **persuades** them to also see the movie. It's not just your opinion and experience that will convince them, but all of the different types of credible evidence and specific reasons why the movie is worth seeing. In the same way, a professor's academic research is basically meaningless unless he or she can persuade an audience of peers that the research is worthwhile and credible.

To Learn By Communicating
In persuading your friends to watch the movie with you, you may find yourself coming up with new ideas and reasons for watching the movie that you would not have thought of if you were only watching the movie by yourself. You may find yourself synthesizing reviews with your personal experience in unique ways. Also, in discussing the film with you, your friends may come up with reasons for not wanting to watch the film that you may not have thought of before. Believe it or not, academic writing works in exactly the same way. In writing a research paper, your professor or fellow students may come up with objections or questions about your writing, helping you to see your ideas in a new and different way and perhaps prompting you to dig even deeper with your research. Academic researchers go through the same process. In trying to persuade others of the importance of their discoveries, they might find that other researchers in their field have important questions or objections to their work. By responding to these questions and objections from their peers, the original academic researchers may discover new ideas or see their research in new ways. In other words, even just the process of writing and communicating our ideas with others helps us discover new knowledge.

However, even with all your thoughtful persuasion, some of your friends probably won't want to go to the movie regardless because they don't like the type of movie. It would take a great deal more evidence, especially evidence that the friends valued, to persuade them to see a movie that they wouldn't normally watch. When communicating with some audiences, certain types of evidence will have more value, and in some contexts, such as in school or professional settings, certain types of evidence can even negatively impact your argument. To persuade others, it is vital to not only have lots of good evidence, but to have multiple, appropriate types of evidence for your audience as well. It is important, therefore, to remember that all research and writing is wrapped up in particular research and writing situations. In this chapter, we will discuss how all communication is shaped by specific contexts. Then, we will discuss how

professionals and scholars have responded to repeated, similar research and writing contexts by developing recognizable research traditions and genres. Finally, we will explore how the writing and research context influences every aspect of a research project.

Discussion and Practice

1. Go online to metacritic.com and read the reviews for a new movie, game, or album coming out that you are interested in. Then using the reviews as evidence, write a paragraph explaining to your friends why they should also see this movie, play this game, or listen to this album.
2. Take a few minutes to write about a topic you have researched out of personal need or interest. What kinds of information did you need to find? How did you go about finding it? What did you do with or based on your research results?
3. In small groups, share your non-academic research stories. What are the similarities and differences in your topics, research strategies, and outcomes?

What Defines a Writing Situation or Context?

In writing about your research, it is important to keep your audience and the writing context in mind in order to most effectively persuade others with your research. The writing situation, also called context or rhetorical situation, always shapes research and writing, especially academic research and writing. Since the time of the ancient Greeks, scholars have devised and debated models and terms to represent communication because it is difficult to account for all of the elements involved in speaking and writing. One common, simple model is the rhetorical triangle.

The basic elements of the rhetorical situation are:

The Author – Who is communicating? What is the author's persona?

The Audience – Who will be receiving the text? What does the author know about them, their position, their values, etc that will influence how the text is written?

The Subject and Purpose – What will the communication be about? What does the author hope to accomplish with the communication?
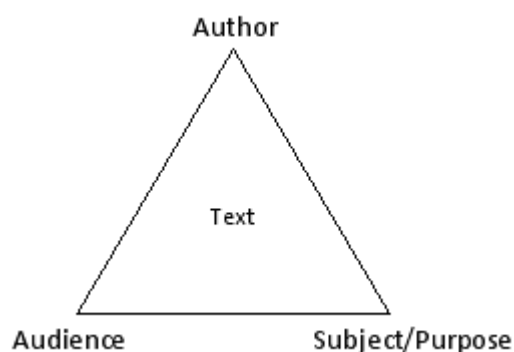
Just as in geometry, if any point shifts, the shape of the triangle changes; the orientation of the author, audience, and subject matter all shape the text. Consider even the most basic writing tasks, such as making a grocery list. If you make a list for yourself, the contents will be a basic reminder of what you need to get. However, if you are writing a list for a friend, the contents will need to be more detailed. If you are making a pasta dish, "pasta sauce" will be sufficient as a reminder to yourself, but you'll need to tell your friend what type, size, and perhaps even

name brand of sauce to buy. Obviously, professional, civic, and academic rhetorical situations become much more complicated and require thoughtful writing to meet the needs of the given case.

Discussion and Practice

1. Look at the syllabi for each of your courses this term and make an inventory of the kinds of writing assignments you will have to complete. Try to define the rhetorical situation for each assignment, especially with regard to the apparent purpose of the writing.
2. As a class or in small groups, create a list of academic writing situations you have encountered or expect to encounter based on your syllabi reviews. You might want to create a course document or wiki that you can add to throughout the term. Return to your list as you work through this textbook and discuss how the concepts covered can help you address these different writing situations.

What is a Discourse Community?

Whether writing to learn, writing to share knowledge, or writing to create new knowledge, students and professors encounter a wide range of writing situations. Therefore, it can be problematic to discuss "academic writing" as though it were just one particular type of writing, just as one cannot lump together all public or popular writing that happens outside of the university. Instead, it is more useful to discuss how people form discourse communities that perform certain kinds of tasks and produce different genres to achieve their purposes.

While letters, personal writing, and some assignments are often addressed to a single reader, most writing is addressed to a larger audience. Groups of people who tend to communicate with one another are called **discourse communities**, and they share common concerns, content, questions, vocabulary, and ways of sharing knowledge. Participants on an NFL discussion board form a discourse community—they share content knowledge about teams, players, statistics and rules; they use specialized language when discussing players' game strategies and scoring averages; they debate draft decisions and analyze coaching strategies; there are rules for posting messages and rules for how to write messages; moderators keep threads on topic and intervene if participants become aggressive or insulting. Different professions have their own discourse communities as well. Members of the medical community are often characterized as speaking their own language; they use technical jargon and abbreviations for conditions and treatments, seemingly cryptic notations for record keeping, and follow incredibly precise rules in their publications.

Discussion and Practice

1. Brainstorm a list of all of the different discourse communities you belong to. How is each defined in terms of shared content, ways of doing things, and ways of talking or writing?

What are Research Traditions?

In the process of conducting research within specific discourse communities, scholars have developed **certain ways of doing research or research traditions** over time as certain discourse communities have studied similar problems and faced similar research contexts and writing situations. Each research tradition is characterized by similar kinds of questions, common ways of collecting data, and accepted means of analyzing and reporting results. Most research can be categorized as text-based, qualitative, or quantitative. Some researchers stick to one of these types of research, while many use multiple approaches to meet the needs of their studies. Let's start with a few brief definitions.

>**Text-based Research** – Text-based research, often called interpretive research in the humanities, studies a variety of texts and artifacts (books, magazines, films, TV, music, advertising and propaganda of various types, etc). While all research traditions use published sources, text-based research studies texts as the main focus, rather than as a means to an end. Text-based researchers usually examine texts within a specific context and focus. By doing so, they gain a better understanding of texts and cultures. A literary analysis of how metaphors are used in Shakespeare's *Romeo and Juliet* would be an example of text-based research.

>**Qualitative Research** – Qualitative research is descriptive in nature. Qualitative research is concerned with observing and interviewing people to learn as much about them and their social and cultural context as possible. By studying people in their natural contexts, qualitative research tries to understand more about how specific cultures shape how and why people do things. A psychologist doing a case study of a patient would be an example of qualitative research.

>**Quantitative Research** – Quantitative research is any research that involves measurement or the manipulation of numbers to make claims, provide evidence, describe phenomena, determine relationships, or determine causation. In such research, it is the quantity of a phenomenon, an opinion, or the results of an experiment that provide evidence for the researcher to make claims. For instance, lab experiments where you must count or measure something (temperature, mass, time, etc) are examples of quantitative research. In contrast, a lab experiment where you determine your results based solely on something's appearance would be qualitative.

We will discuss text-based, qualitative, quantitative and mixed method research more fully in Chapters 6-9, explaining more fully the research methods that each research tradition uses to conduct research.

What Kinds of Writing do Researchers Do?

Just as shared content and ways of generating content form discourse communities and research traditions, recurring research and writing situations allow scholars and writers to

develop patterns and habits for responding to them. As a result, we can discuss certain **genres** and writing strategies that have arisen to meet academic needs. Genre is a complex concept, surrounded by different definitions and theories, but a simple understanding of genre as a classification or type of text characterized by recurring patterns of content, organization, or style will suffice for our purposes.

Similar to how research traditions have developed for research, genres have developed in writing as people have responded to particular needs of communication in certain contexts. For example, people have always needed to communicate news and current events. The spread of print made newspapers a convenient way to do this. News writers realized that people would want to be able to read about some topics and not others, that the stories should be easy to find, and that the most important information in a story should come first because readers might not have time to finish the whole article. Thus, journalists developed the genre of the news story, marked by a clear headline, and the standard lead paragraph that provides the who, what, when, where, and why of the story became a convention. In academic writing, genres, such as lab reports, abstracts, works cited or reference pages, and even the five-paragraph essay that you may have learned in high school, evolved as people responded to recurring writing situations and realized that standardized formats would make communication more efficient and effective. When learning to write in new genres, it is important to remember that it's not about following arbitrary rules, but following certain writing strategies and patterns that will help your specific audience get your message most effectively.

However, research writing is common in many non-academic contexts as well, and other genres are common in civic and professional discourse. Business people write emails, memos, reports, business plans and proposals, and presentations to share their research with different audiences. Activists create websites and brochures to present research-based evidence to support their causes. Government aids and lobbyists write white papers to share research on complex topics with politicians. People from many professions and hobbies conduct research on topics that interest them and then write or contribute to Wikipedia entries to share information with a diverse audience. Each of the research tradition chapters in this book includes a public example that represents how writers in popular contexts employ many of the same research methods as academics, though they usually write about their results in very different ways. In Chapter 2, we'll talk more about how various academic, civic, and professional discourse communities use research materials to inform and persuade audiences.

Discussion and Practice

1. Make a list of non-academic research writings you have encountered recently. What were they about? What genres were represented? Where did you see them?

How Do Context and Research Traditions Shape Research Writing?

Rhetorical situations and research traditions influence every stage of the research process, from what questions are asked, to what kind of research is conducted to find answers, to how results are presented and evaluated. Some considerations are practical, such as what can be done with the time and resources available. Other decisions are based on a researcher or discipline's ideas about how knowledge is made. These considerations guide researchers' decisions about all elements of their studies, including:

Research Method – Research method refers to how the research is done. Interviewing, conducting surveys, or gathering data from focus groups are all different types of research methods. Different research questions lend themselves to different research methods. For example, we can't answer questions about historical events by observing them directly, but we may be able to interview people who were involved. If everyone who was there at the time is deceased, we would need to examine artifacts, such as material evidence or texts from the time, to answer our questions.

Evidence – Evidence refers to the research data that the researcher has collected in order to support a claim. Context determines what counts as valid evidence in research. For example, researchers in the social sciences value observation and interview data. Researchers in the physical sciences prefer evidence from controlled lab experiments. Evidence can also be gleaned from existing published sources to create an original argument.

Sources – Sources are defined here as where the evidence originated. Most academic writing situations call for academic sources—preferably sources published in peer-reviewed journals—and material from popular magazines or websites is seen as suspect. Sources can be categorized as primary or secondary. Primary sources are original texts or data collected by the person doing the research. For example, an historian might collect oral histories from Vietnam veterans. These oral histories are considered primary sources because they are the research data that the historian collected. Secondary sources are based on primary sources, and may be syntheses, interpretations, or revisions of primary sources. The historian decides to read several books by other prominent historians about Vietnam War. These books are secondary sources.

Extent – The extent or degree of research refers to how elaborate or extended the study needs to be. Specific research and writing situations determine the depth and breadth of research required. A student writing a research paper for an introductory political science class might only need to read and discuss four sources provided in class to meet the assignment, but a graduate student would need to locate, evaluate, and integrate many scholarly sources to complete a successful seminar paper.

Presentation – Presentation includes the forum, genre, and style in which researchers share their results. The forum is where a text is published, and research writing appears in everything from personal blogs to scholarly books. Different publication venues are appropriate for different research and writing purposes. As discussed above, research writing can be presented in multiple genres as well, from lab reports to grant proposals to articles. Writers must study examples of the genre that most meets the needs of their research and writing situation and follow the writing strategies that would most effectively persuade their intended audience. Consequently, the research and writing situation determines what counts as "good" writing. It determines what rhetorical moves you make in writing, what type of language or word choice you use, and how you format your data and sources.

The research cases below illustrate how topic, audience, and purpose determine how the research is conducted and then presented in writing to solve problems in many different disciplines.

Text-based Research in Law

Using Research to Solve Legal Problems
Jake is a lawyer in Indiana whose firm has been hired to defend a blogger's privilege to protect her confidential sources. A senior partner has asked Jake to write a legal memorandum to present the case. In gathering evidence and opinions, Jake will use a variety of primary and secondary textual sources. For example, Jake will need to study the specific shield laws in his state (Indiana's shield law does cover freelance writers associated with traditional media, but has not yet been applied to bloggers). He will need to review case law and precedent, and he will need to study the blogger's publication and the story in question to see if her site meets legal standards for editorial control. This work will often require close reading an interpretation of specific passages. Jake will probably also read relevant articles that analyze similar cases.

Using Writing to Solve Legal Problems
After conducting extensive research and analysis, Jake will write an open memo to his firm that follows a standard outline. He will write an introduction, a statement of the legal question at issue and a summary of his answer(s), a statement of the facts in the case, an overview of pertinent statutes and precedents, a discussion of the issues in the case, and a conclusion in which he considers potential outcomes for the case and makes a recommendation about how the firm should proceed with the case.

To write a successful legal memorandum, Jake needs to be precise and concise. He does not need to provide an exhaustive history of case law in the matter, but he does need to cite the most important recent cases and statutes that pertain to the case. Because he is writing this memo to other legal experts, Jake can refer to legal terms and statutes without elaborating, but he will need to revise the language and content when he uses material from his memo in a letter of opinion or trial notes in the future.

Qualitative Research in Education

Using Research to Solve Problems in Education

A high school teacher named Erin wants to discover why a high percentage of students drop out of a certain high school. She will begin by reading what other scholars have written about the causes of high drop-out rates, but the best primary research method for her to pick is to conduct a type of qualitative research called an ethnography. Erin will spend at least a year observing the school in as much of its context as possible—observing several classrooms, the cafeteria, etc. She will also interview many of the participants in the school—students, teachers, the principal, and possibly even some of the parents. In this way, she will examine the school's culture as thoroughly and in as much detail as possible in order to discover hidden causes that even the participants might be unaware of. Because the teacher does not know what these hidden causes are before she starts her research, a multiple choice survey that lists possible causes for the high dropout rates would not be as accurate. This type of survey might miss some underlying causes that the teacher is unaware of. Even an open-ended questionnaire would not get at the underlying causes for the high dropout rates because some of these causes might be unknown to the students too. In other words, the ethnography is the best approach because the problem of high dropout rates is too complex for other research methods. Only by seeing the entire school in its context through conducting detailed observations and interviews can the teacher get at the complex reasons for dropping out of high school.

Using Writing to Solve Problems in Education

Erin wants to write about her ethnographic research in an academic journal to share her findings with other educators who may be facing similar challenges. To do this, she carefully details her research methods, letting her audience of other researchers know exactly how she conducted her study. She also writes a literature review where she not only shows what other researchers have already discovered about the reasons for dropping out of high school, but she also establishes why her research is original or important for other educators to read about. Finally, she includes many details from her observations and interviews as evidence for her findings, which gives her findings credibility for her audience. Academic articles usually follow conventional organizational structures, and most journals require a specific style for citing sources.

On the other hand, Erin's principal also asks her to offer the school suggestions that would help teachers and administrators motivate more students to graduate. To write her suggestions, she does not write about her methods, she does not write a literature review, and she does not include the details from her observations and interviews. Instead, she takes her findings from her ethnography and uses them to offer a short, bulleted list of practical suggestions that busy teachers and administrators can quickly read and learn from.

Quantitative Research in Medicine

Using Research to Solve Problems in Medicine

A biological engineer named Sarah has an idea for constructing coronary stents that would better facilitate blood flow through blockages in the coronary arteries. She has read a number of published articles in medical journals about current stent technology, and she has observed their effectiveness in practice, which has led to her theory for improving this medical equipment. She then tests out her theory in a lab by measuring which stent provides the best flow. This is an example of a lab experiment that relies on the quantitative research tradition, and she will record her data clearly.

Using Writing to Solve Problems in Medicine
Sarah would like to run even more experiments using the coronary stents in her lab, but she needs more sophisticated and expensive equipment in order to do this. To get the money, she decides to write a proposal for a research grant. Her audience for the research grant proposal is a panel of other experts in her field of biological engineering. She first writes about the research on blood flow in coronary stents that she and others have already conducted. She does this to establish the need for further research and funding for more expensive equipment to continue the study. Then, she outlines her plan for extending this research. This will prove to her audience of experts that her research will be viable and credible.

Good scientific writing is often quite technical and detailed. Because she is writing to other experts in her field, Sarah will use terminology that would probably lose a non-expert audience but that is more precise and accurate to an expert audience. She will need to follow the specific format recommended by the agency offering the grant and document her sources using the citation style the grant agency recommends. Sarah will also provide detailed tables of data to represent her primary research and further enhance her credibility as a researcher in biological engineering.

Mixed Method Research in Business

Using Research to Solve Problems in Business
A business major named Max wants to start a local coffee shop after graduation. To help make it successful, though, Max must first conduct several kinds of research. He will research models of other successful coffee shop businesses, compare them to see what successful coffee shops have in common, and apply these in designing his own business plan. Max could also research what other business or marketing professionals have written about coffee shops and implement their suggestions. So far, Max has primarily engaged in text-based research.

Because markets vary, however, Max needs to conduct local market research to find out what types of coffee drinks would sell the best and make him the most profit. This research problem calls for quantitative research. He decides to conduct a survey asking people in the area what types of coffee drinks they would most like to drink and what price ranges they would be most willing to pay. A survey is the most appropriate method because he can ask several multiple choice questions and quickly get responses from many people since surveys are easy to pass out and don't take more than a few minutes to complete. While it is impossible for him to survey everyone living in the area, he still needs to poll a good percentage of the locals to get a

sufficient breadth of information. However, because the information he needs is quite focused, his research doesn't need as much depth as a more open-ended, qualitative interview would give him, for instance. Consequently, a short, multiple-choice quantitative survey will suffice for his research needs.

After conducting his survey, Max knows which types of coffee drinks and price ranges would make him the biggest profit, but he also knows that it takes more than affordable coffee to make a successful coffee shop. Therefore, Max decides to conduct qualitative research in the form of a focus group. He invites ten people who represent his target demographic to discuss possibilities for the store's décor, logo, food, and retail items.

Using Writing to Solve Problems in Business
When this research is completed, Max has a very good idea of how to run a successful coffee shop, but he needs more start-up money to open his business. To solve this problem, he uses his text-based, quantitative, and qualitative research to write a business plan to convince potential financial backers to invest in his business. He chooses this genre to outline how he plans to run his business, showing potential investors that his business is likely to be successful and make a profit.

Good business writing is clear and concise. Consequently, Max does not go into a lot of detail about the process or data from his research but only presents the most important information so that busy financial backers will be able to skim the document and glean the key points. In fact, he may present most of his data visually, using tables, charts, or graphs. He will also not include a literature review from his research of other successful business plans, but will only use this research to quickly lay out the most important points of his own business plan.

Note that each of the researchers begins with a specific topic and purpose. The scholar then considers the best research strategy for solving his or her particular problem and how in-depth the research will need to be. Either before the project begins or in the process of conducting the research, the writer decides what audience or audiences they will need to communicate with about their findings, and the audience will further determine what counts as appropriate evidence and what counts as "good" writing. We will discuss a number of text-based, qualitative, quantitative, and mixed-methods studies in the following chapters. As we do, pay special attention to how the author's topic, purpose, and audience influence the type and extent of their research and how they present their research using specific genres and writing conventions.

Writing Projects

1) *Researcher Profile* - Interview a professor in your major or an academic area that interests you about what research tradition they use to do research, what research methods they use, how they write about their research, and where they publish their research. Write a profile of this professor's research and writing practices to share with the class.

2) *Discourse Community Analysis* – Select a discussion board/group/forum about a topic that interests you. Consider professional or college sports; fan sites for bands, books, films or TV shows; hobbies like cooking or kayaking; or groups associated with your field of study or potential careers. Follow discussion on the forum for a couple of days, browse the archives, any background about the board, FAQs, or rules posted on the site.   Write an article for potential site users to explain what makes this board a discourse community and how it works. How would you summarize the forum's main topics, concerns, and purposes? What types of language do they use? Do they use terms that people outside of the community would not understand? If so, what are these terms? Why do you think the community uses them? What are the community's writing strategies and rules for discussing topics? Are the rules of conversation presented explicitly or do members seem to have a more implicit system for managing their discussions? What do you think people get out of belonging to this discourse community?

Chapter 2
Creating Arguments and Working with Evidence

People write for many purposes—to express their emotions and creativity, to entertain, to think through problems and decisions, to share information, to argue issues, to make proposals. The kinds of research writing that we emphasize in this book, however, focus primarily on writing to inform and persuade. Many students approach research projects with dread, not just because research papers require a lot of time and work, but because they feel little investment in the process. You might think that writing a research paper is just about piecing together what other people have written and see no opportunity for expressing yourself or your opinions in this type of writing. Although some writing situations ask you to summarize and synthesize what others have said while being as objective as possible, almost all writing makes an argument of some kind, and you often have significant control over which sources you use, how you frame them, and how you make your case. In this chapter, we will discuss how people use evidence to inform and persuade in a variety of rhetorical situations.

You will recall from Chapter 1 that every act of writing or communication grows out of a particular context that includes an author, topic and purpose, and audience. People write in response to a particular **exigence**—an event or situation that requires some sort of rhetorical intervention. You can also think of exigence as a type of problem that requires rhetorical action and problem-solving. One type of exigence for students is when they are assigned writing for course credit. A newspaper reader may see an editorial they disagree with as an exigence for writing a letter to the editor. A neighborhood organization may see broken playground equipment as an exigence for writing a proposal for repairs to the town council. The kinds of research and evidence required for a successful piece of writing depends on what the author hopes to accomplish and what the audience expects.

Two of the most common purposes for academic, professional, and civic writing are exposition and persuasion. Exposition explains—its purpose is to share knowledge with an uninformed reader. Persuasive writing involves persuading readers to change their attitudes or actions. Essays that ask you to take a position on an issue or present an interpretation, business proposals, and political campaign materials are examples of writing to persuade or convince. Both of these purposes are argumentative in nature. In other words, they are both making a case about a topic or issue. For example, a brochure at your health center on how to avoid getting sick is expository in nature. It is giving you the facts. However, it has selected only a few facts and not every fact that has ever been written. It also avoids conflicting facts and any controversy. It is making an argument, even though it isn't overtly trying to persuade you to change your opinion. The techniques used on a political brochure may be the same—the careful selection of facts to make an argument—but the purpose is different.

All writing requires the effective use of **claims** and **evidence. Claims** are statements that you, the writer, originate. They should be supported by evidence—and all of this evidence comes

from the careful selection of **data** from many sources. Your evidence is any material you use to support a point or claim. Evidence is the "truth" presented by the writer in a particular situation. Data are facts produced and collected through looking at a topic in a particular way. As a researcher, you collect as much data as possible, and as a writer, you select the best data to present as evidence for an argument. This may sound confusing at first because you may have considered facts and truth as synonymous. Let's look at two examples how data becomes evidence in argument. The first can be seen often in the crime scene dramas on television. The crime scene investigators have to collect as much data as possible from a crime scene because they don't know what will be relevant until it is all analyzed. Although this isn't always portrayed in these shows, the investigators provide the most compelling data to the district attorney who then selects evidence from that data to present in the trial of a suspect. The attorney knows better than to present every gum wrapper, cigarette butt, speck or particle of dust to the jury when there might be more compelling evidence such as fingerprints or DNA on a murder weapon, so much of the data gets ignored.

Let's take another example. In the mid-2nd century, Ptolemy computed the position of the planets and their motion, a table of data that still can be used with some accuracy today. The data available to him was observations made with the naked eye and mathematical models. These facts led to Ptolemy's conclusion, which was accepted as truth, that the earth was at the center, and all planets revolved around it. The data was limited, however, and even Ptolemy wrote that this argument could only be theoretical. However, that theory held until 1643 when Copernicus collected more precise data on planetary orbits, then used it as evidence to argue that the sun was at the center of the system. This was followed by Tycho Brahe's data that supported Copernicus, and finally Galileo who used his telescope to collect even more data. The point is that the continued collection of more data changed the "truth" as more compelling evidence was used to make these arguments.

As a researcher, you want to collect a lot of data, but not all of it will end up as evidence in a final argument—you want to select the best evidence to produce the best argument. Depending on your topic, audience, and purpose, you can use a wide variety of evidence to support your argument. In fact, most writing draws on multiple types of data, such as: personal experience or anecdote; first-hand observations or field work; statistics gathered from surveys or controlled experiments; opinions, stories, or information from interviews; material from books, articles, and web sites; media like films, television programs, or podcasts; and statistics or data sets from research conducted by the government, universities, or other organizations. Next, we'll take a closer look at some different types of arguments and the rhetorical strategies and evidence that are appropriate for specific purposes.

Discussion and Practice

1. We are surrounded by arguments—all manner of texts presenting sometimes conflicting truths. Consider the following texts. Indicate the purpose of each whether expository or persuasive. Then, indicate how much evidence is needed for it to achieve its purpose and why
    a. Commercials

  b. Essay in history
  c. Newspaper article
  d. Television newscast
  e. Essay in English
  f. Proposal in Business
  g. Scientific experiment
  h. Internet discussion post
  i. Letter to the Editor
  j. Instructions for using an iPod
  k. Blog
  l. Grocery list
  m. Website for a political candidate
2. Now that you have considered these various texts, do any seem non-argumentative? In other words, do all of the texts have to include evidence? Do all of these texts contain claims?

How Can We Define and Categorize Arguments?

A few brief definitions and strategies for argument will be useful as you work out connections between research and argumentation.

We can define argument broadly as presenting one's case in an effort to persuade or convince others through the use of spoken or printed text and/or images. Arguments can range from minor disagreements addressed at the level of cooperative negotiation to polemical presentations with the goal of defeating opponents rather than persuading them. While aggressive argumentative attacks are common in some types of public and political discourse, academic discourse communities usually value more reasoned, logical arguments. The structure and tone of arguments varies considerably depending on the purpose and audience addressed. Consider the following common purposes for argumentation:

Arguments to seek the truth or work through issues – You may have had arguments like this with yourself, where you make pro and con lists for a specific decision or debate your options. This type of argumentation is also common in philosophical or theoretical discussions or when a group is working collaboratively to solve a problem. Inquiry-based argument is often called **dialectic**.

Arguments to raise awareness and increase involvement – In this type of argument, you must convince people that the information is worth their attention and that your presentation is factually accurate. For example, a human rights group might issue a brochure to inform people about human trafficking; in addition to providing cases and individual statistics, they might highlight the humanity of the victims and demonstrate that this is a problem in the United States. Lastly, the human rights group will lead the reader to a website or address where readers can not only find out more information about human trafficking but can also get involved in the organization through donations or volunteering.

Arguments to convince people to change their opinions or values – This is a broad category of argumentation that addresses everything from contrary evaluations of a football team's chances for the Super Bowl to attitudes about abortion. The seriousness of the issue and how entrenched your audience's values are determine what types of evidence and strategies may succeed, but significant debates about values might never be "won."

Arguments to persuade or encourage people to take action – Arguments to convince often precede arguments to persuade an audience to act on their convictions. A community group might need to convince the city council that a park is in dangerous disrepair, then persuade them to allocate a budget and hire contractors to make repairs. In other cases, an audience might agree with your principle, but need persuasion to make a stand or donation to support your cause. Persuasive arguments often involve demonstrating that the benefits of a particular policy or action would outweigh the costs.

In addition to identifying arguments by their purpose, we can also classify arguments by the nature of the issue they address. Often referred to as *stasis theory*, this approach dates back to ancient Greek and Roman rhetoric and considers where the points of contention lie. Consider the following *stases* and two examples that range significantly in content and seriousness.

Questions of Fact – Does a thing exist? Did something happen?

Questions of Definition – What is the nature of the thing or event? How can the thing or event be classified? What does it mean? Definition may also address how or why.

Questions of Evaluation – Is the thing or event good or bad? Accidental or intentional?

Questions of Policy or Procedure – What action should be taken? What is the best way to move forward?

We work through stases all of the time, often without realizing it. John tells Leslie that Alice in Chains just released a new album. At first, she questions this possibility, as the band hasn't released a new album in 14 years. This question of fact is easily resolved by checking the band's website. Next, Leslie might question if this is "real Alice in Chains" because they have a new lead singer. To settle this question of definition, John could argue that, while Layne Staley did shape the old sound greatly, William DuVall is a great vocalist and guitarist who stays true to the band's roots. Next, Leslie might ask if *Black Gives Way to Blue* is a good album. John could answer this question of evaluation by telling her what he likes about it, playing one of his favorite songs, or referring her to the high reviews on Amazon. The final question of action is if Leslie should buy the CD or download it from iTunes.

A stasis approach is also common in more formal situations, such as legal cases. For example, if a man shoots and kills his roommate, the question of what happened might be determined by the existence of the roommates' body, the coroner's report, and the fact that the shooter was in possession of the weapon. Next, detectives would have to investigate if the shooting was accidental or intentional in order to define the nature of the shooting. If it was an accident, was it the result of gross negligence? If they find that the shooter meant to fire the weapon, the officers and the prosecutor would need to determine if the act occurred in the heat of the moment or if it was premeditated. The answers to each of these questions would inform the court's deliberations about what crime to charge the shooter with and what punishment to ask for. The differences between a case of reckless homicide and first-degree murder are significant, and thus great care must be taken to present appropriate evidence and appeals at every stage in the case.

Discussion and Practice

1. Think about some arguments you have made or debates you have had in the past. How would you classify these arguments based on the types described on page X? In small groups, generate a list of examples for each type of argument. Discuss what aspects of your argument experiences help you classify them. Did you come up with any examples that don't fit into one of these categories? What about arguments that might fall into more than one category?

2. Alone or in small groups, choose one of the general topics listed below and brainstorm some possible points of contention about the issue. Next, try to develop stasis questions that would lead to arguments of fact, definition, evaluation, and action associated with the topic. You might do an internet search to see what stasis questions appear in published debates about your topic.

   Global Warming   Alcohol Use among Teenagers
   Academic Dishonesty   Texting While Driving

How Do You Make an Argument through Rhetorical Appeals?

Regardless of the point of contention or purpose of an argument, it is important to be thoughtful about the strategies you use to persuade your audience. Rhetorical strategies are used in almost any type of writing—not just in directly argumentative texts—and the various **rhetorical appeals** address different elements of the issue at hand and different aspects of the audience's consciousness. One of the ways that speakers and writers adapt to specific rhetorical situations is by adjusting the types of arguments or appeals they make or emphasize. We make strategic argumentative moves to achieve the desired effect.

There are three main categories of appeals that correspond roughly to the three elements of the rhetorical situation discussed in Chapter 1.
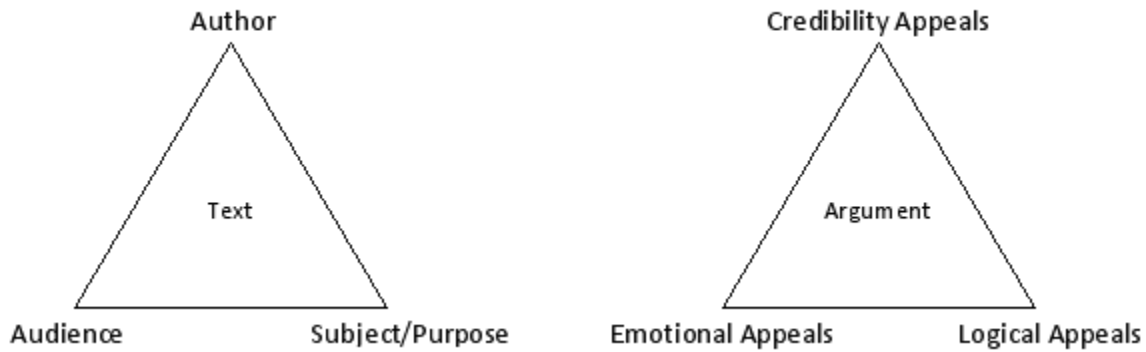
Aristotle used the terms *ethos*, *logos*, and *pathos* to refer to appeals that emphasized the author, subject, or audience, respectively, but you don't have to know Greek or use technical terms to understand and use these types of appeals.

Ethos or Credibility Appeals – One builds his or her ethos by making ethical appeals. These are appeals based on the credibility, values, or status of the author. Ethical appeals establish the author's character, persona, credibility, authority, sincerity, or virtue. However, making an ethical appeal does not mean arguing if something is or is not ethical in our day-to-day use of the term, though it may involve the author's ethics. Thus, it may be simpler to say that the author establishes his credibility or demonstrates her authority rather than saying he/she makes an ethical appeal.

Pathos or Emotional Appeals – One creates pathos by making emotional appeals. Emotional appeals draw on the audience's emotions, needs, beliefs, and values. While some argue that we should not rely on pathos, especially in academic writing, almost all effective texts include emotional appeals. The key is in how they are used and in the balance between emotional and logical appeals. In academic writing, arguments are expected to rely more on logical arguments than on pathos.

Logos or Logical Appeals – Logos is a complicated term that had multiples meanings in Greek philosophy, but for our purposes, logos is the logic and reasoning of a text. Logos is established through logical appeals. Logical appeals are made by using 'facts,' statistics, examples, and anecdotes, often in support of inductive or deductive reasoning.

> If you think about it, you are in a variety of rhetorical situations every day and employ rhetorical strategies to make the appropriate appeal for the desired effect. Chances are, however, that you just haven't examined these situations in quite this way or used these terms. For example, when Stacy was in high school, she had to convince her parents to help her buy a car for when she moved to college. She established her credibility and ethics by

arguing that she had been responsible with the family car and worked hard at her part-time job to save money. She appealed to her parents' reason by explaining the time and expense that would be saved if they didn't have to drive back and forth to pick her up for visits and breaks, and how having a car would give her more options for working while she was in college. Stacy appealed to her parents' emotions by claiming that she would come to see them more and be less homesick if she had a car. Finally, Stacy reminded her parents that her older brother got a car when he went to school, thus making a logical appeal based on her parents' previous example while also appealing to her parents' values of fairness.

How is Logical Reasoning Used in Researched Arguments?

Because logos is so important in academic discourse, let's take a closer look at the two primary types of logical reasoning—deductive and inductive. Induction and deduction use evidence differently, so you should consider these approaches to research and argument at the outset of any project.

Inductive Reasoning

Inductive approaches begin with a collection of specific data and work from specific instances to develop general conclusions or theories. We use inductive reasoning all of the time as we learn from experience. Say you eat frozen entrees several days a week for lunch. If every time you microwave them for the amount of time listed on the package they are still cold in the center, inductive reasoning tells you that the directions aren't accurate for your microwave, so you start leaving them in the oven longer until you figure out the best cooking time. Of course, induction in researched arguments is often more formalized. In terms of research, some scholars use "inductive method" and "scientific method" interchangeably, and formal research follows specific steps to collect data, analyze it, and draw conclusions based on the collected data. Inductive reasoning informs a variety of disciplines and approaches to research, ranging from textual studies that examine common characteristics of a genre to social sciences research about behavioral trends.

The strength of inductive arguments depends on the amount of evidence used to reach a conclusion. **Weak induction** is based on limited evidence and, as such, is less persuasive and more likely to be contradicted by further observation. If we return to the microwave example, it is quite reasonable to assume that the cooking time isn't accurate for the one microwave you use every day, but it would not be logical to assume that the directions are wrong for all microwaves. For this reason, arguments based only on personal experience or a limited data set should not be overgeneralized.

Strong induction is based on a large number of instances or occurrences, often observed over time by many individuals. Some phenomena, such as the sun rising in the east or the cycle of the seasons, have reoccurred regularly throughout history, so we feel quite confident that the

sun will rise and set tomorrow as it always has and that summer will be hotter than spring in most areas. Even with strong inductions, however, the conclusion can never be completely certain and is subject to change if the observed evidence changes. As we have already indicated earlier in this chapter, for centuries, people believed the sun revolved around the earth because that is what their observations suggested; new technology and more accurate observations led people to change this belief.

If an inductive relationship is strong enough, it may become accepted as a natural law or common sense. These claims based on inductive reasoning from existing data can then be applied to deductive reasoning.

Deductive Reasoning

Deductive approaches work from general to specific, beginning with a generalization, theory, or claim about a category and applying it to a specific case to make an argument. Deductive reasoning is practiced in the sciences, mathematics, political science, and economics, which test scientific theories in specific situations or apply assumed laws to individual cases. Deduction is also common in philosophy, religious studies, and other fields that investigate abstract principles. The strength of a deductive argument is based on its logical consistency rather than the accumulation of evidence.

In formal logic, deduction often takes the form of a **syllogism**, which is a series of three statements that lead to a conclusion. The first statement is the major premise, a categorical claim or statement of apparent fact about some group or phenomena. The second statement is the minor premise, which makes a statement about a smaller subset or individual instance associated with the major premise. The third statement is the conclusion, which is logically entailed if the major and minor premises are true. Consider the following examples of syllogisms:

Major premise	One purpose of the state is to promote the safety of the people.	All teachers are nice.
Minor premise	Vaccinations promote the safety of the people.	Mr. Smith is a teacher.
Conclusion	The state should require vaccinations.	Mr. Smith is nice.

The tricky thing about deductive reasoning is that a syllogism can be valid without being true. Logic dictates that the reasoning is valid if the conclusion necessarily follows from the premises. However, if one of the premises is false, or if people in a debate don't agree with one of the premises, the syllogism will not be accepted as sound. For example, a number of students might disagree with the major premise, "All teachers are nice." If both premises are proven to be true or are commonly accepted, however, the syllogism is valid and sound, making for a very strong logical argument.

Many arguments use a shortened form of the syllogism called an **enthymeme**. In an enthymeme, one of the premises is left unstated, often because the arguer assumes the audience will accept the unstated premise as true because it represents their cultural values or "common sense." Enthymemes often take the form of a claim and a reason. Consider the following enthymemes and their unstated premises or assumptions.

> They shouldn't let their daughter watch horror films because she'll have nightmares.
> (The unstated assumption is that horror films cause nightmares.)

> He receives so much gold in World of Warcraft because he plays a female character.
> (The full syllogism would be: 1) Female characters receive more gold from other players. 2) His character is female. 3) He gets more gold.)

Discussion and Practice

A nutrition and dietetics major is interested in learning more about the snacking habits of students, so he observes student activity at the vending machines in a classroom building on campus for an hour in the morning, lunchtime, and afternoon on two different days. During each observation, he records the time, gender of the student, and what they purchase from the machines. The student's two observation tables are presented below.

Monday Vending Machine Observations

DayTime	Gender	Drink	Snack(s)
7:50am	M	Pepsi	Pop Tarts
7:53	F	Frappacino	granola bar
7:55	F	Apple Juice	
8:00	M	Amp Energy Drink	Cookies
8:06	M	Orange Juice	Pop Tarts
8:32	M	Green Tea	
8:54	F	Orange Juice	
8:58	F	Diet Pepsi	
11:52	M	Mt. Dew	Chips, Cheese Crackers
11:56	F	Green Tea	
12:01pm	M	Pepsi	Trail Mix, Snickers
12:10	M	Mt. Dew	Cheese Crackers
12:18	F	Diet Pepsi	
12:55	F	Water	
12:59	M	Pepsi	
4:00	F	Apple Juice	Reduced fat cookies
4:01	F		Chewing gum
4:10	M		Cookies
4:16	F	Diet Pepsi	M&Ms
4:22	M	Dr, Pepper	

4:37	M	Pepsi	2 bags Doritos
4:44	M	Amp	

Thursday Vending Machine Observations

Time	Gender	Drink	Snack(s)
8:48am	F	Frappacino	
8:54	M	Apple Juice	Pop Tarts
8:56	M	Pepsi	Cupcakes
9:00	F	Water	Fruit bar
9:02	F	Orange Juice	Granola Bar
9:15	M	Amp	
12:30pm	F	Diet Pepsi	
12:38	M	Mt. Dew	Chips, cupcakes
12:40	M	Pepsi	Trail mix, Reese's Cups
12:55	M	Pepsi	Peanut butter crackers, twix
1:00	F	Green Tea	Reduced Fat cookies
1:01	F		Skittles
1:12	M	Dr. Pepper	
3:52	F	Diet Pepsi	Pretzels
3:53	F	Diet Dr. Pepper	
4:00	M	Amp	Cheese Crackers
4:04	M	Pepsi	
4:11	F		Reduced fat cookies
4:30	M	Amp	Chips
4:42	M	Pepsi	Cheese crackers

1. Examine the data for patterns. What general claims might the student make based on these specific examples of vending machine purchases? Are these conclusion based weak induction or strong induction?

2. How might you develop the inductive claims made above into premises for deductive reasoning? Write a syllogism or enthymeme about some aspect of students' vending machine purchases; you may need to draw on additional premises that are commonly accepted in your culture.

What Evidence Can Be Used to Support Rhetorical Appeals?

Each writer must select appropriate evidence based on their topic, audience, and type of appeal they hope to make. Below, we've listed some of the more common types of evidence and examples of each.

Comparisons, Metaphors, and Analogies – Although they must be constructed carefully, metaphors and analogies can make strong appeals. The environmental

movement has used the image of "Mother" Nature to encourage people to care for the planet and compared the earth to a spaceship or boat to encourage the frugal use of resources. Analogy can also play a part in logical arguments, particularly through inductive reasoning. Metaphors and analogies are both used widely in text-based research to explain concepts and to argue for a specific way of seeing a text or other argument. Such comparisons are also used in public and popular writing as a way to explain complex arguments to audiences unfamiliar to those concepts. More generally, comparisons are used as evidence when similar claims are made. For example, in the debates about government involvement in health care, both pro and con arguments use evidence generated from government health care in other countries.

Examples from Specific Cases or Anecdotes – Telling a story is often a successful way to engage the audience and make a position or proposal seem feasible. A student environmental club proposing a campus-wide single-stream recycling program might describe the successes of two other universities that took similar action. Citing precedent, or what has occurred in the past, can make a solid logical appeal. Anecdotes are especially effective for making emotional appeals. Consider the Feed the Children commercials that always begin with the story of an individual child in poverty. Specific case or anecdote examples are often used in qualitative research in the social sciences. A psychologist may refer to a specific case of a previous patient in order to determine how to best treat a current patient. Anecdotes are often used in text-based research. A literary scholar may open an analysis of the historical accuracy of *The Scarlet Letter* by using a gripping anecdote from the book.

Testimony – Just as lawyers do, you can bring the testimony of experts or people involved with an issue into your writing to support your claims. The students pushing recycling could cite a variety of scientists and waste management experts about the benefits of recycling; they could also quote students and faculty who are unhappy with the lack of recycling on campus. Citing authorities can add to your logos as well as your ethos; citing people who are impacted by a problem will strengthen pathos. Testimony can be used in either text-based or qualitative research. Both use the quotes of other scholars to further support or analyze their claims and research findings. Testimonies in the form of interviews are used in qualitative research.

Empirical Evidence – Empirical evidence, or data gained from a scientific experiment, can be used to make a variety of appeals, and strong arguments are often supported with these types of numerical data, statistics, and results. Proponents of a recycling program might present a report that contains financial data about how much their program would cost or how much it would save. They could present estimates of how many tons of waste the campus adds to landfills each year. They could also set up a pilot program to experiment with single-stream recycling in one dorm and present their results. Empirical evidence is most often associated with logical appeals, but a shocking statistic can elicit an emotional response and explaining the method you used to gather data can enhance your credibility. Empirical evidence is used in both qualitative and

quantitative research. Both establish clear research methods to conduct studies that are used to uncover data.

Graphic Representations – Photographs, illustrations, charts, and graphs can make appeals on their own or add impact to a written statement. The environmental club might include photographs of campus trash bins full of cans and plastic bottles or a picture of a landfill to illustrate their point. A well-designed chart that presents their numerical data might be more effective than a full paragraph summarizing it. (See Chapter 10 for more information about visual representations of data.) Graphic representation of numerical data is especially important in quantitative research where data sets can be so huge that visual representation is needed to make sense of them as well as to make comparisons.

Figure 2.1 City Dump, photo by John Nyberg
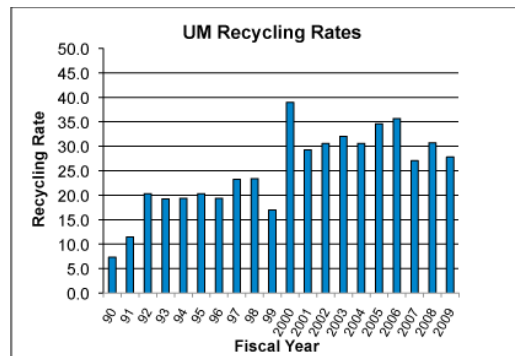
Figure 2 University of Michigan Recycling Rates Graph, source: http://www.recycle.umich.edu/ grounds/recycle/history_of_recycling.ht ml

Discussion and Practice

1. Read the following recycling proposal from the Green Campus Subcommittee at the Florida Institute of Technology. Identify where to committee makes logical appeals, emotional appeals, and credibility appeals.

2. Next, identify the types of evidence the committee uses to support their proposal. What types of evidence do they use to establish their ethos, logos, and pathos?

2004 Green Campus Proposal

The Quality of Life Committee, of which the Green Campus Subcommittee is a part, has taken on the task of investigating a university recycling program. The concern of this committee, as has been voiced by others on campus, is that the university as a whole needs to make a greater effort in recycling items on campus. Currently, there are many universities around the country that have recycling programs. The College and University Recycling Council (CURC; http://www.nrc-recycle.org/councils/CURC/) was formed in 1992 and became a technical council of the National Recycling Coalition in 1995. The mission of the CURC is "to organize and support environmental program leaders and institutions of higher education in managing resource recycling and waste issues."

At Florida Tech, a green campus survey was administered to determine the level and need for awareness of recycling on campus. A sample size of 251 people, which included 5% of all students on Melbourne Campus and 7% of all Florida Tech's employees (i.e., faculty and staff) was given a survey, which asked the level of importance of recycling to them and if they would participate in recycling program. The survey also asked which items they think should be recycled. In the sample size, over 97% agreed that Florida Tech should have a recycling program. Additionally, 95% said that they would participate in recycling program if one was established on campus. A list of items was presented for respondents to choose which items should be recycled. The three items they indicated the most were paper at 97%, aluminum cans at 90% and plastic at 84%. Some unsolicited qualitative information from staff and faculty was also provided during the survey process. Some of the comments included:

- "I hope y'all adopt a recycling program here. I feel terribly guilty every time I throw away paper from the printer that I know could be recycled."
- "I'm all for recycling, and it's always baffled me why a school with programs in science, technology, biology, environmental science and ecology doesn't recycle!"
- "If this means, would you recycle? "The answer is yes," I would continue to do so. Further, I would provide stronger encouragement to others in our office."

It seems evident that the climate on campus for recycling is ripe. However, in order for the campus community to buy into this program, the University should step up efforts to facilitate recycling opportunities.

The following are some recommendations from the subcommittee to implement a more comprehensive recycling program on campus.

This committee recommends to Florida Tech that:

- It join the College and University Recycling Council (CURC)
- Build awareness and emphasize the value of recycling on campus via newspaper articles, fliers, forum messages, etc.
- Identify locations of recycling receptacles on campus.
- Identify possible grant funding agencies.
- Provide funding for the following:
    - transportation to pick up recyclables
    - recycling containers
    - central storage area
    - compensation for manpower to the appropriate department for supervision of this program

By joining this CURC, Florida Tech will have access to technical assistance, education and training as well as networking opportunities and support for a recycling program. This will help us to build awareness on campus for recycling and the good it will do for the university and the community. By identifying locations for recycling receptacles on campus, the awareness on campus for recycling will be heightened even more. There are also opportunities to generate revenue from recycling. Based on some of the information obtained about revenue from turning in recyclables and the amount of recycling already done on campus, this program could pay for itself in short period of time. Currently with the help of Alpha Phi Omega this campus is already recycling paper nine months out of the year and there is a program also underway to recycle aluminum cans to benefit Habitat for Humanity. Consequently, the precedent has been set on campus for recycling and to elevate this to the next level should be a natural progression of the program.

What is the Difference between Using Data and Making Data?

The most important thing to remember about evidence and argument is that data by itself will not create an argument. You need to put together the data from your research in a compelling way so that it creates a clear explanation or argument. The bits and pieces, numbers and quotes, interviews, and interpretations that you have gathered through research are all just meaningless words on a page until they are formed into something that makes sense for an audience. A useful analogy is a traditional puzzle. When you open the box, you will see hundreds of pieces, each cut in a specific way to only fit with another piece. You might have a particular strategy to assemble the puzzle—maybe first putting the corners down, then putting together the borders, then filling in the middle. When assembling evidence for an argument, you are doing the same thing. You are setting up the border or constraints of your argument— you are telling your audience, there is a lot out research data there, but I'm only going to look at this square of information. Then, you fill in the pieces with your evidence to make a complete picture of your argument.

The problem with only piecing together existing data is that, like the puzzle, you are stuck using the pieces that are already provided. It is very difficult to make a new picture with only old evidence. If you want to make a new argument, you will probably have to make new data. Generating data usually requires that you follow an established system of research for discovering new evidence so that this evidence can be trusted. There are many research systems for making data, and no one is better than the other—they are just different and provide distinct types of data to be used in an argument. Text-based research is useful for gaining credibility by establishing the historical basis for an argument, and in showing new ways to look at old ideas. Qualitative research is useful in uncovering how people interact with a culture or cultures. Quantitative research is useful for providing precise measures of phenomena. If you think about it, all research is partly all of these things. However, the research question—the thing you want to find out or the picture you want to create—is answered by one or more major research approaches depending on the answer you want. (We'll discuss how to formulate a solid research question and select appropriate methods more in Chapters 5-9.)

Taking a step back to look at the bigger picture, you might also recognize that the differences in using data and making data don't make one better than the other—they too are just different processes that are useful for looking at different questions. You might want to use data from previous research to give your argument credibility. Using data from other research establishes a precedent for your research—it lets your audience know that there is a history of people researching the question. Using previously published data also helps your ethos as a writer because it lets your audience know you understand what research has come before. That's why you may be familiar with research more as using data since traditionally teachers often want students to prove they understand a concept by reporting on the previous research about a topic. Reporting only what others have done, however, can only get you so far. That's why it is also important to understand how to make data as well. Making data is good for creating new

pictures, for answering unanswered questions, and for giving you new insight into established topics.

At this stage in your development as a researcher, you will likely discover that using data and making data together can increase your understanding and abilities in both. By reading research articles in your field and others, you will gain a greater understanding of how research is conducted and what research writing can look like. On the other hand, going through the process of conducting your own primary research will give you a better understanding of the research you read and why authors do what they do.

Let's look at an excerpt from a *Newsweek* magazine article by Kathleen Deveny and Raina Kelley about the influence of celebrity media. As you read, pay particular attention to how they synthesize past research and new research to support their argument.

Newsweek

Girls Gone Bad

Paris, Britney, Lindsay & Nicole: They seem to be everywhere and they may not be wearing underwear. Tweens adore them and teens envy them. But are we raising a generation of 'prosti-tots'?

Kathleen Deveny and Raina Kelley

From the magazine issue dated Feb 12, 2007

My 6-year-old daughter loves Lindsay Lohan. Loves, loves, loves her. She loves Lindsay's hair; she loves Lindsay's freckles. She's seen "The Parent Trap" at least 10 times. I sometimes catch her humming the movie's theme song, Nat King Cole's "Love." She likes "Herbie Fully Loaded" and now we're cycling through "Freaky Friday." So when my daughter spotted a photo of Lindsay in the New York Post at the breakfast table not long ago, she was psyched. "That's Lindsay Lohan," she said proudly. "What's she doing?"

> Personal experience is a type of qualitative research, although admittedly limited by the author's perspective. Nevertheless, this anecdote helps establish the author's ethos.

I couldn't tell her, of course. I didn't want to explain that Lindsay, who, like Paris Hilton and Britney Spears, sometimes parties pantyless, was taking pole-dancing lessons to prepare for a movie role. Or that her two hours of research left her bruised "everywhere." Then again, Lindsay's professional trials are easy to explain compared with Nicole Richie's recent decision to stop her car in the car-pool lane of an L.A. freeway. Or Britney Spears's "collapse" during a New Year's Eve party in Las Vegas. Or the more recent report that Lindsay had checked into rehab after passing out in a hotel hallway, an item that ran on the Post's Page Six opposite a photo of Kate Moss falling down a stairway while dressed in little more than a fur jacket and a pack of cigarettes.

> The authors provide a list of examples that have been published in the press. They use the enumeration of bad behaviors to establish the existence of a problem and set up an inductive claim in the next paragraph.

Something's in the air, and I wouldn't call it love. Like never before, our kids are being bombarded by images of oversexed, underdressed celebrities who can't seem to step out of a car without displaying their well-waxed private parts to photographers. Videos like "Girls Gone Wild on Campus Uncensored" bring in an estimated $40 million a year. And if *US* magazine, which changed the rules of mainstream celebrity journalism, is too slow with the latest dish on "Brit's New Man," kids can catch up 24/7 with hugely popular gossip blogs like *perezhilton.com*, *tmz.com* or *defamer.com*.

Allow us to confirm what every parent knows: kids, born in the new-media petri dish, are well aware of celebrity antics. But while boys are willing to take a peek at anyone showing skin, they're baffled by the feuds, the fashions and faux pas of the Brit Pack. Girls, on the other hand, are their biggest fans. A recent *NEWSWEEK* Poll found that 77 percent of Americans believe that Britney, Paris and Lindsay have too much influence on young

> Here, the authors generate new empirical evidence. Note how they introduce where the data came from, a poll that they conducted to answer their research question with quantitative data.

girls. Hardly a day passes when one of them isn't making news. Paris Hilton "was always somewhere, doing something," says Melissa Monaco, an 18-year-old senior at Oldfield's boarding school for girls in Maryland, who describes herself as a recovered Paris Hilton addict. "I loved everything from her outfits to her attitude," she says. And it's not just teenagers. Julie Seborowski, a first-grade teacher at Kumeyaay Elementary School in San Diego, says she sees it in her 7-year-old students: girls using words like "sexy," singing pop songs with suggestive lyrics and flirting with boys.

> They then synthesize two more qualitative pieces of data from interviews they conducted. They continue to add more testimony to substantiate their argument.

That's enough to make any parent cringe. But are there really harmful long-term effects of overexposure to Paris Hilton? Are we raising a generation of what one L.A. mom calls "prosti-tots," young girls who dress like tarts, live for Dolce & Gabbana purses and can neither spell nor define such words as "adequate"? Or does the rise of the bad girl signal something more profound, a coarsening of the culture and a devaluation of sex, love and lasting commitment?

> This paragraph makes emotional appeals by identifying parents' fears, quoting a parent, and pointing to shared cultural values that are challenged by trends in celebrity behavior.

We're certainly not the first generation of parents to worry about such things, nor will we be the last. Many conservative thinkers view our sex-drenched culture as dangerous; liberals are more prone to wave off fears about the chastity of our daughters as reactionary. One thing is not in doubt: a lot of parents are wondering about the effect our racy popular culture may have on their kids and the women they would like their girls to become. The answers are likely to lie in yet another question: where do our children learn values? Here's a radical idea—at home, where they always have. Experts say attentive parents, strong teachers and nice friends are an excellent counterbalance to our increasingly sleazy culture. Statistical evidence indicates that our girls are actually doing pretty well, in spite of Paris Hilton and those like her: teen pregnancy, drinking and drug use are all down, and there is no evidence that girls are having intercourse at a younger age. And in many ways it's a great time to be a girl: women are excelling in sports, academics and the job market. It's just that the struggle to impart the right values to our kids is a 24/7 proposition. It can be done, but an ancient rule of warfare applies: first, know thy enemy.

> The authors cite expert testimony and statistics to make logical appeals in support of their claim that parents can reduce the effects of bad celebrity influences.

"It takes a very strong adolescent to know what's right and what's wrong and not get sucked into all this stuff," says Emily Waring, 40, a paralegal from San Diego and mother of two girls, ages 9 and 2. Waring says her "mom radar" is always on because she believes negative influences, including entertainers like Britney Spears, are everywhere. "Kids can so easily stray," she says.

Nobody wants her bright, innocent girls to grow up believing "hard-partying heiress" is a job title to which they can aspire. But does dressing like Paris or slavishly following the details of Britney's love life make kids more likely to stray? Educators say they don't believe most girls in middle school wear short skirts or midriff shirts to attract the attention of older men, or even boys.

(High school is, granted, a different story.) Sixth graders dress to fit in with other girls and for acceptance in social groups. "They dress that way because that's what they see in the media," says Nancy T. Mugele, who works in communications at Roland Park Country School in Baltimore. "They don't want to be different."

Which is not to say that hearing about Lindsay Lohan's, um, "fire crotch" doesn't affect the way kids think about sex. A study published last year in the journal *Pediatrics* concluded that for white teens, repeated exposure to sexual content in television, movies and music increases the likelihood of becoming sexually active at an earlier age. (Black teens appear less influenced by media, and more by their parents' expectations and their friends' sexual behavior; those who had the least exposure to sexual content were also less likely to have intercourse.) Specifically, the study found that 55 percent of teens who were exposed to a lot of sexual material had intercourse by 16, compared with only 6 percent of teens who rarely saw sexual imagery in the media. That jibes with what many Americans fear: 84 percent of adults in the NEWSWEEK Poll said sex plays a bigger role in popular culture than it did 20 or 30 years ago, and 70 percent said that was a bad influence on young people. **. . . . .**

. . . One-day marriages aside, why wouldn't girls be fascinated by her and her celebrity pals? These 21st-century "bad influences" are young, beautiful and rich, unencumbered by school, curfews or parents. "They've got great clothes and boyfriends. They seem to have a lot of fun," explains Emma Boyce, a 17-year-old junior at Louise S. McGehee School in New Orleans. But fascination and admiration are two very different things. As they get arrested for driving drunk and feuding with their former BFFs, the Brit Pack makes it easy for young women like Boyce, a top student and accomplished equestrian, to feel superior to them. "My friends and I look at them to laugh at them," adds Boyce. "Our lives seem pretty good by comparison. We're not going to rehab like Lindsay."

Boyce says she and her friends have simply outgrown their devotion to celebrities. Twelve- to 14-year-olds are probably the most vulnerable to stars' influence. "Clearly it is at this age for girls that they are trying to find an identity to associate with," says Kuzniewski, the junior-high principal from Buffalo Grove, Ill. "It seems desirable to be Lindsay Lohan." Now that's a legitimate cause for parental concern. But it may very well be fleeting. After all, have you read your junior-high journals lately? Like us, you were probably obsessed with trivial things that had little bearing on the person you became at 24 or 34. Even if your daughter does dress like Paris or behave like Lindsay, that doesn't mean she's doomed to a life on the pole. Plenty of high-school bad girls (us, for instance!) grow up to be successful professionals with happy home lives.

Earlier the authors discussed a poll that they conducted that said parents thought that specific personalities had too much influence on teens. Here, they cite existing scientific data from an academic journal, *Pediatrics*.

Then they synthesize the academic study with their own poll data. By using and making data, they have refined and corroborated their argument more than using data alone.

Quotations from qualitative interviews with a teen and a principal present multiple views. This evidence adds to the article's logical claims and also enhances the authors' ethos because it shows they are considering multiple sides of the issue.

The authors also address the reader directly to make an emotional appeal and help parents put this issue in perspective.

And as much as we hate to admit it, we grown-ups are complicit. We're uncomfortable when kids worship these girls, yet we also love *US* magazine; we can't get enough of YouTube videos or "E! True Hollywood Stories." So rather than wring our hands over an increase in 17-year-olds getting breast implants, what if we just said no? They're minors, right? And while we worry that middle-schoolers are dressing like hookers, there are very few 11-year-olds with enough disposable income to keep Forever 21 afloat. The greatest threat posed by these celebrity bad girls may be that they're advertising avatars, dressed by stylists and designers, who seem to live only to consume: clothes, cell phones, dogs and men. But there's good news: that problem is largely under the control of we who hold the purse strings.

> Here, the authors shift from establishing the existence and nature of the celebrity influence problem to suggesting action to counter it. In the next paragraph, they cite expert testimony to support their proposal.

And even if our adolescents pick up a few tricks from the Brit Pack, we have a big head start on them. We begin to teach our kids values while they're still in diapers. "Kids learn good morals and values by copying role models who are close to them," says Michele Borba, author of "Building Moral Intelligence." Experts say that even the most withdrawn teens scrutinize their parents for cues on how to act. So watch your behavior; don't gossip with your friends in front of the kids, and downplay popularity as a lifetime goal. Parents need to understand and talk about the things that interest their kids—even if it's what Paris is wearing—without being judgmental. That makes it easier for kids to open up. "The really subtle thing you have to do is hear where they are coming from, and gently direct them into thinking about it," says Borba. That means these celebrities gone wild and all their tabloid antics can be teachable moments. Lesson No. 1: wear underwear.

Throughout their article, Deveny and Kelley select data from published articles, polls interviews, and first-hand experience in their discussion of media influence, and each source provides a unique piece of the puzzle—different types of evidence serve different purposes for the authors and their readers. Note that they integrate multiple sources and let us know where this evidence is coming from with clear attributions in the text. In the following chapters, we will discuss how to find evidence from published sources and how to make new evidence using text-based, qualitative, and quantitative research methods.

Discussion and Practice

1. Get in small groups with your classmates and consider the types of evidence used in the Newsweek article (comparisons, cases, testimony, empirical).
   a. Who is the audience for this article? What is the purpose of the argument in this article?
   b. What types of evidence are the most effective for this argument and its audience? Why?
   c. What types of evidence are the least effective for this argument and its audience? Why?

How Do You Know What Evidence to Use?

Because there are different ways to gather data and so many types of evidence you can use to inform and persuade, it can be difficult to decide what kinds of evidence to use and how much support you need. After you spend hours conducting library research, observations, interviews, surveys, or experiments, it might be tempting to include every piece of evidence you collected to show off how hard you worked. To write an effective research project, however, you should include only pertinent evidence that meets the needs of your readers.

In academic research and writing, the most important rule is to choose sources of data that best answer your particular research question. For example, if you want to learn about how women perceived work after World War II—after many of them had been working in factories to build equipment for the war effort—quantitative data from surveys probably wouldn't be the most helpful. Instead, you might analyze personal diaries or letters written by women during that period. If possible, interviewing a woman who had worked in a factory during World War II would also be extremely useful in examining how women perceived work. In the following chapters, we will discuss how different research methods can answer certain types of research questions and also how researchers in different fields tend to place higher value on different kinds of evidence. Selecting an appropriate method and type of data, however, is only the beginning of choosing good evidence.

How much evidence you need depends on the nature of your claim and your audience. The more original or controversial your argument, the more evidence you will need. Likewise, if your evidence is primarily circumstantial or conceptual, you'll need more data than if you have direct, concrete evidence. But even though some arguments, like strong induction, demand a lot of evidence, you don't usually want to present everything in detail. Another guideline for selecting evidence is that quality is more important than quantity. One or two pieces of well-documented or carefully gathered evidence that are directly applicable to your claim will be more persuasive than ten hastily gathered examples that are more tenuously related. Even if you have a lot of great evidence, you can make best use of it by summarizing some of it or presenting large amounts of data in visual form, like a graph, and only detailing the most salient examples or statistics.

After you collect secondary and primary research data, you should ask a number of questions that will help you evaluate its usefulness for your argument:

- Is your data credible, timely, and relevant? In Chapter 3, we provide a detailed discussion about collecting and evaluating published sources, and you should apply similar criteria to the data you create through original research.

- Can the evidence you have be used to make appropriate rhetorical appeals for your intended audience? A poignant anecdote might be convincing to some people, but you might not want to include it in a formal report for scholars who expect statistical evidence.

It is also likely that you will refine your argument as you conduct research, so some evidence that you considered early in the project might become less central to your claims. While it is important to provide an accurate picture of your research process and results, you may find that some data you collected just isn't appropriate or necessary for your paper. This doesn't mean that you have wasted your time; it's actually an important part of the research and writing process.

Writing Projects

1) *Persuasive Letter* – There are probably several issues in your life that would improve if you could convince someone else to change their mind or behavior. Choose one of these topics and write an argument that uses specific evidence to establish your ethos and make emotional and logical appeals to a specific audience.

2) *Rhetorical Analysis* – Read a persuasive article about a current controversy or topic that interests you. Write an essay that explains the rhetorical situation of the article, what appeals the author makes, and what types of evidence and reasoning the author uses to support his or her claims. Explain why you think the argument is successful or not; you might also make suggestions for how the author could strengthen the argument or adapt it for a different audience.

Chapter 3
Working with Published Sources

It's 8:00 pm on Wednesday night. John remembers that he has a paper due on Friday morning and digs the assignment sheet out of his bag. He needs to write an argument about why the US entered World War II when it did, and he is supposed to use at least five sources. Realizing that he doesn't have much time, he enters "US entry into WWII" into Google and picks several sources from the first page of results. The first site is a hefty Wikipedia entry, which he uses for background information and a link to info about the attack on Pearl Harbor. Next on the list is "Churchill and U.S. Entry Into World War II," written by David Irving and published in the *Journal of Historical Review*, which John thinks will be a good academic source. He also finds an article titled "The Reasons Why: Behind the Scenes of Delayed US Entry into World War II." No publication information is provided, but John likes the argument that the coverage of European events in *The New York Times* contributed to the United Stats' late entry into the war. John knows that his professor would want him to use some research that wasn't from the internet, so he searches his library's catalog. This is frustrating because when he enters "WWII and United States" into the library search box, he keeps getting a lot of sources that don't meet his needs, and the few books he does find are already checked out. He manages to find several full-text articles through a database search, though, so he prints those out and looks for ideas and quotes to use. It's hard, but John finishes his paper right before class and thinks he did pretty well on it . . . until the professor returns it with a D-.

John made several avoidable mistakes in approaching this research project. The most obvious is that he started too late to conduct a thorough review of published research on his topic, which meant that he had to work with what he could find quickly. If he had asked a librarian for help, for example, he would have discovered that "World War 1939-1945" is a better library search term than "WWII." If he had started sooner, he could have ordered the best books through interlibrary loan, selected stronger articles, and spent more time thinking about his own argument based on multiple sources. World War II has generated a lot of scholarship, much of it in books, so any research will require much more reading. Another big weakness in John's approach was that he didn't evaluate his sources or consider their credibility. He didn't pay attention in class the day his professor said they weren't allowed to use Wikipedia. He also didn't consider who wrote some of his sources. It turns out that David Irving is a controversial historian and Holocaust denier, and the *Journal of Historical Review* supports a revisionist approach to history that John's professor doesn't approve of. The article about *The New York Times'* role in the war was written by a reputable scholar, but John didn't look that up, and the author's work is more focused on writing and technology, so she might not be considered an appropriate authority for a paper in history. Even when John was using good sources, he mostly copied and pasted quotations into his paper, rather than accurately summarizing their main arguments and discussing how they related to one another and his own ideas. He also ended up writing more of a list of reasons given by others rather than presenting a cogent argument of his own. John missed the whole point of using published sources and saw library

research as a hoop to jump through rather than an opportunity to explore his topic and create an informed argument.

In this chapter, we will discuss the role of published materials in research and how you can use these sources effectively to improve your own writing and avoid the mistakes John made.

Why do Scholars Use Previously Published Sources?

Researchers in all fields consult published sources for many reasons, from personal curiosity to professional necessity. Some of the most common reasons researchers include source materials in their writing are as follows:

- To provide background information for readers.
- To situate their research as part of an ongoing conversation in their field, whether they are replicating, extending, or contradicting a previous study.
- To increase their credibility by demonstrating familiarity with the topic and key sources.
- To define key terms or theories that influence the study.
- To corroborate their data or analysis.
- To include counterarguments and increase credibility by considering alternative theories or interpretations.
- To demonstrate a research gap—some approach to or aspect of the research subject that has not been covered by other researchers.

Having a variety of reputable published sources allows you to view your research from alternate perspectives. They give insights you may have never have had in answering your research question with any other source. They allow you to analyze your textual or non-textual sources in new ways that are beyond the obvious.

Discussion and Practice

Chapters 6-9 all contain academic articles that use sources. Alone or in groups, choose one to skim, noting each time the author cites a published source and what purpose you think the source serves for the article. Share your observations with the class.

How Do You Find Source Material?

Where you begin your search depends on your topic and the kind of material you need, but there are ways to conduct your search more efficiently. First, make sure that you understand any source requirements that are part of your assignment. If a professor expects you to incorporate at least four academic sources, a paper with three websites will not make the grade. You might also want to ask your professor if there are databases or search engines that he or she would recommend for your topic. Another important resource to keep in mind is the reference desk at your school library. Many colleges and universities have subject specialists as well as general reference librarians who will be happy to help you find reliable sources—check

the library website for contact information. These librarians are experts on the library's holdings and how the various catalogs and search engines work. They can also help you locate physical resources in the library, from general reference books to special holdings and traditional journals to microfiche. If you limit your search to what you can get online, you might miss out on some of the best materials available.

If you prefer to research on your own, make sure that you work smarter, not harder, by brainstorming keywords and setting clear parameters before you start your search. The internet offers a wealth of information, but it can also take a lot of time and effort to navigate. Instead of general searches, try to find subject-specific directories or use tools like Google Scholar to narrow your results to more pages associated with academic journals and institutions. Take a few minutes to figure out how each search engine or database works so that you can make the most out of Boolean operators and limiters for dates, languages, and publication types. Careful searching will yield better results more quickly. And once you find a few good sources, make sure to look at the works cited, suggestions for further reading, or links to other relevant material. Throughout your search, write down author names, journal titles, and other information that will further your search and bookmark all web pages that might be helpful to save yourself from conducting the same search twice.

How Do You Do Advanced Internet Searching?

Today, whether you are using a library search tool or search tools available on the Internet, some offer help with Advanced Searches. By selecting the Advanced Search link (for example, to the right of Google's main page search box), you can limit your searches to very specific terms, dates or even file formats. Although many search tools, including Bing and some databases, do not offer this standard feature, almost all search tools allow you to use Boolean and advanced searching operators within the search box (including Google). Here are the most common:

> **AND** – The AND operator makes sure all the terms you request appear on the selected sites. If you type Java AND language your search will return pages about the programming language, not coffee. You can also use the plus sign (+) to use AND. Many search tools will automatically assume AND when you type in multiple words, but some do not.
> **OR** – Use OR to return pages that contain either of two terms. For example, Microsoft OR Apple will find pages that mention either or both companies.
> **NOT** – Use NOT to ensure that certain words won't appear in your search selections. Quark NOT software will narrow your search to real Quarks and not the publishing software. You may also use the minus sign (-) as a NOT (e.g. English - language would find every instance of English that did not have language).
> **Parentheses** – You can organize your searches even further by using parentheses. NOT Biomechanics AND Technology will return pages with Technology in them; NOT (Biomechanics AND Technology) will avoid pages with both names.
> **Quotes –** Quoting allows you to search for an entire phrase rather than each word. If you were to search for Johns Hopkins University you would get a total of every page that lists Johns AND Hopkins AND University. Some of the search engines will assist you by

automatically applying the AND to the string but it still won't return all the same results as typing "Johns Hopkins University." Many search tools automatically search common phrases, but some long search terms can cause problems.

What are Primary and Secondary Sources?

All researchers rely on some type of source material, and most rely heavily on previously published sources. Sources can be defined as primary sources or secondary sources. **Primary sources** are original documents or records created during the time period under investigation. In text-based research, primary sources may consist of clerical records, letters, newspapers, novels, sound recordings, posters, or any other original source documents. We will discuss the use of primary texts for text-based research more in Chapter 6. In qualitative and quantitative research, a primary source is one in which the author is also the researcher and he or she is describing the research that he or she conducted within the writing. Most academic articles in the social and physical sciences are primary sources because the author is describing the research he or she conducted. **Secondary sources** analyze, synthesize, or comment on primary sources in some way. In text-based research, a collection of letters written by settlers on the Oregon Trail would be a primary source, while an article about how those letters reveal the settlers' notion of manifest destiny would be a secondary source. In qualitative and quantitative research, any piece of writing that describes research that the author did not conduct is considered a secondary source even if it is in an academic journal. And, of course, news accounts of scientific research are secondary sources. Secondary sources also include encyclopedias and other reference texts, documentaries, and a number of websites. In this chapter, we will focus on how researchers use previously published secondary sources with an emphasis on academic sources.

How Do You Evaluate Published Sources?

You might have noticed words like relevant, credible, reputable, and reliable in the discussion of sources so far. In order to fulfill all of the purposes for integrating source material mentioned above, researchers need to select the *best* possible sources for content and rhetorical effect, not just what they find first. In evaluating sources to include in your investigation, you should consider the type of source, credibility, relevance, and timeliness.

What is the Difference between Academic and Non-Academic Sources?

Academic Sources

Most researchers, and most college professors, consider academic sources to be more credible and useful than popular publications. **Academic sources** are written by academics and researchers for an audience of other academics or experts. These include scholarly books and monographs, peer-reviewed journal articles, and some reference works. You can also find scholarly web databases and academic websites that may be appropriate. Good academic sources present

> **Tip:** For many projects you don't have to read or cite an entire book. As long as you get a feel for the book's main arguments and don't present material out of context, it is fine to use only the most relevant sections or chapters.

thoughtful, balanced coverage of their topic and include careful citation of sources.

Popular or Non-academic Sources

Popular or non-academic sources may be written by academics or experts, but they might also be written by less qualified authors. In either case, the author is writing for an audience that may be educated but would not be considered experts in the field or topic. Popular sources vary widely in how (or even if) they cite sources. Some examples include popular non-fiction books, news magazines, more general reference works, pamphlets, and popular websites. Trade journals and professional or organizational websites, as well as textbooks, usually fall somewhere in the middle; you should consult your professor to see if they are appropriate for your project. The most common types of sources are books, periodicals, and websites (though people rarely consult them in that order), and each category contains works that range from highly academic to purely popular.

Books

A traditional movie montage of a studious undergrad or law student working on a paper would likely show him or her combing the library stacks, carrying stacks of books, and falling asleep on an open volume, pencil in hand. Books have long been associated with "serious" research, and as electronic sources become more common in academic writing, some professors may look even more fondly on the use of reputable book sources. Reputable authors tend to publish their work in reputable forums, so you should always consider where you find a book.

Academic Books

It can sometimes be confusing to distinguish between academic and non-academic books. Here are some clear ways to tell the two apart:

1. Academic books are published by an academic press. These publishers generally have "University Press" somewhere in their title. Often the university is well known—for instance, Harvard University Press and MIT are respected academic presses. It is important to distinguish between academic university presses and educational presses. Educational presses specialize in textbooks and other school-related media. While textbooks are written by experts, they are not generally considered good sources. For one, textbooks often stick to commonly accepted arguments and, thus, don't cite their sources that often. Additionally, textbooks are written for students, whereas research the students are doing should go beyond what a textbook can provide.
2. Academic books are written by scholars who are experts in that particular academic field. For instance, an academic history book will be written by a professor of history. Be skeptical of books that are not written by scholars in the field that the subject of the book is about. For example, be wary of a book about politics written by an engineer and vice versa. Academic books often display a brief biography of the author with his or her qualifications, including what department and school the author teaches at. Sometimes this biography can be found on the back cover or at the back of the book.
3. Academic books are peer-reviewed. Peer review is a process by which book content is evaluated by other scholars and/or experts in that field—an academic book in

anthropology is peer reviewed by other anthropologists. In peer reviewing, scholars in the field either accept or reject the book. If they accept the book, they are vouching that it is a credible source in that field—that the research is thoroughly and accurately conducted, and that that this research has been presented accurately. Beyond credibility, though, peer reviewers are also vouching that the book furthers knowledge in some way in that field.

4. Academic writers generally privilege sources that are published by academic presses, or university presses.
5. Academic books always cite their sources, whether in footnotes, endnotes, or in-text. They will always include a bibliography at the end of the book. Often this bibliography is quite lengthy, spanning many pages.

Non-academic Books

You might find useful nonfiction books that are written with a general popular audience in mind. For example, Owl Books, a subsidiary of Holt, published Barbara Ehrenreich's *Nickled and Dimed* (excerpted in Chapter 7), a nonfiction book based on extensive primary and secondary research. At the more popular end of the spectrum are books that may be informative, but wouldn't be appropriate for academic citation, such as Wiley Publishing's *For Dummies* series.

Periodicals

A periodical is any publication that is printed at regular intervals. Many academic journals are published quarterly, while magazines come out once a month and newspapers may be printed daily or weekly. Just as with books, it is important to distinguish between academic and popular periodicals.

Academic Periodicals

Academic periodicals are referred to as journals, and many professional fields and business organizations publish professional trade journals. Both types of journals are written by experts for others in their fields. For example, the Society for Technical Communication (STC) publishes the quarterly journal *Technical Communication*, which contains qualitative and quantitative research articles, applications of theory, and book reviews. STC also publishes Intercom, the society's monthly magazine that contains more practical articles, columns, and society news.

One way to distinguish between types of academic and professional periodicals is to check if they are peer reviewed. Peer review means that articles in the periodical are submitted to other academic scholars in the field who need to vouch for the work's credibility and accuracy before the article can be published. Sometimes peer-reviewing is called refereeing.

You can find whether a journal is peer-reviewed in the following ways:
1. Look at the back cover, front cover, editorial statement, or the journals' website for information on the editorial board. Additionally, look for submission information; if an article is to be submitted in multiple copies, the journal is probably peer-reviewed.

2. If your school library hosts EBSCOHost/Academic Search Premier, select the "Peer-Reviewed" checkbox to filter your search. However, it should be noted that this will limit your source to refereed journals, not necessarily refereed articles. Scholarly journals do publish editorials and book reviews that are often not peer-reviewed.

As you proceed in your major, you will become more familiar with the journals in your field, and it is a good idea to ask your professors which journals they read.

Non-academic Periodicals

Because academic publishing tends to take quite a while, you may sometimes need to use reputable popular periodicals to discuss current events. Journals may also be written with a level of specialization or technical detail that makes them less useful for some more general topics. Determining the credibility of popular publications is a bit trickier than evaluating academic sources because many popular publications have a particular bias and cater to a specific, non-academic demographic. Even so, some publications have a better reputation for credible reporting. For example, the *New York Times* and *Washington Post* are national newspapers that will have more rhetorical effect than a story in your community's weekly paper. *The New Yorker* and *National Geographic* are considered more reputable magazine sources than *Maxim* or *Cosmo*. Often, you can find intelligent analysis in political publications such as *The Nation* or *The Republic*, but you should identify each publication's audience and bias before deciding to use the material they publish. To learn more about a popular publication, you can visit their website and look for links to About pages, mission statements, submission guidelines, and their media kit or advertising overview, which often give details about the publication's agenda and target audience. When using popular sources (and even academic ones) it is always a good idea to look for multiple perspectives or sources that corroborate or question the information provided.

Web Sites

While more and more credible academic and popular sources are making research content available online, you still need to take particular care in researching on the web. Because just about anyone can create a webpage, you need to pay particular attention to the source's credibility. One good way to start filtering web pages is by paying attention to their URL, the last three letters of the domain name indicate what type of site you are dealing with.

.gov - Government agencies
.edu - Educational institutions
.org - Organizations (nonprofit)
.mil - Military
.com - commercial business
.net - Network organizations

The extensions that follow direct your browser to specific files within that site. If a quick glance at the URL doesn't give you a clear idea of the material's source, you can subtract parts of the URL, slash by slash, until you locate the home page or directory. This can be a worthwhile process. One student found an article about Socrates online and cited it in his paper, but a bit more detective work revealed that the piece was written by a militia member in Missouri who supports the overthrow of the US Government—not exactly a credible academic source. Because there is far less regulation of domain names and web publications than there is of print publications, you should examine each source to the tests of credibility, timeliness, and relevance discussed below to determine their research value.

Academic Websites

Be especially careful of .edu websites. Unless you have directly accessed an academic online journal or book, these sites are not usually considered academic sources. While there are sites created by professors for classes that usually include credible information and list academic sources, they have not undergone any peer review process like other academic books or periodicals. Also, remember that students who are still learning about their major can create .edu websites too.

Non-academic Websites

Wikipedia, Ask.com, and other popular general information websites can be very useful for day-to-day research on topics that interest you. On the other hand, these sites are authored by many people with varying levels of expertise and are not strictly regulated, so you should use this information only as a starting place for academic research, and some professors prefer that you not use these sites at all. We see their primary functions as providing an overview of a topic, helping to generate key words, and pointing you to more reputable sources via links and references. Wikipedia is a useful tool, but it is not a credible academic source.

Another caveat regarding the credibility of materials you find online is that web users and developers often do not follow the same standards for source use and attribution that print publications demand. It is easy to cut and paste material, and it is not uncommon to see the same information, often word-for-word, on multiple sites with no indication of its original source. If you find something particularly useful, you should conduct a search to locate the original and ensure accuracy and appropriate citation.

Discussion and Practice

In this activity, you will be collecting different types of sources so that you can compare how purpose and audience influence what research gets reported and how.

a. Choose a topic that you think has been written about in a variety of publications ("Buffy the Vampire Slayer" works well).
b. Use your library's database search, such as Academic Search Complete, and a Google search to find a mix sources.
c. In small groups, select two popular articles from different magazines, newspapers or websites and two academic journal articles—preferably from different disciplines.

d. Scan the introduction or abstract, major subheadings, the conclusion, references, and read a few paragraphs. Compare content, organization, style, and use of research. How are these textual conventions shaped by purpose and audience?

How Do You Know When to Use Academic or Popular Sources?

In selecting published sources and evaluating their usefulness, remember that all sources need to be rhetorically effective. In other words, they need to be appropriately chosen for their audience and purpose. This means that occasionally even academic writing needs to use non-academic sources. For instance, if a scholar using text-based research is analyzing an artifact from popular culture like a television show or a comic book, then obviously that popular text is going to be used and cited. Of course, most textual researchers will introduce other academic texts to analyze this popular culture artifact. It is the act of bringing in these other academic texts to "re-read" or "re-view" this popular culture artifact from a different perspective that makes this textual analysis academic—even if the analysis is of a comic book.

Also, if a historian is studying a particular time period, he or she may want to examine textual artifacts from that particular time—magazines, newspapers, movies, novels, plays, etc.—even if these sources are not academic. Like in the previous example, though, the historian may want to use other academic sources to analyze these non-academic materials in an attempt to see them and the time period they represent from a more informed perspective.

Finally, government sources are technically not considered academic. Nevertheless, scholars still draw on them for their academic research. For example, a sociologist trying to understand poverty among Latinos may use labor statistics from the US Bureau of Labor Statistics (http://www.bls.gov). Researchers in education may use statistics from the National Center for Educational Statistics (http://nces.ed.gov) to examine how and why community college attendance affects whether or not students stay in college. Although government websites and non-profit groups publish a lot of research, most of it reputable and credible, it is rarely if ever peer-reviewed—it has not been analyzed by experts before being published. However, you should feel confident using such primary or original sources, which are better than using a newspaper or magazine article that only reinterprets such data from the original source.

How Do You Determine the Research Value of a Source?

The credibility of a source is the most important factor, particularly when it comes to academic research. You need to ask yourself: Do I trust this source? Will my readers trust this source? Is the material written by an expert in the field? Has the material been published in a respected forum? What are the biases of the author or publishing body? In addition to determining if a source is academic or popular and examining where the work was published, you should evaluate **the author's credibility, the timeliness of the work, and its relevance to your goals.** We will discuss these factors below as they apply to a range of materials, but with particular attention to academic sources.

The Author's Credibility: Who Authored the Source and What Are Their Credentials?

Generally, you will want to use sources written by experts in their field or reputable reporters. As researchers become more acquainted with a topic or discipline, they will get to know the "big names" in the field—those who have published respected works that are frequently cited. Even if you are unfamiliar with a field or topic, however, there are several ways you can determine an **author's credibility** by researching his or her credentials.

- Often, books and academic journals will include a brief biographical note at the beginning or end of a work that identifies the author's degrees and university or organizational affiliation. You can also do a library database search to see what else the author has written.
- Another good idea is to conduct a Google search of the author, though you'll want to add additional key words for common names. For academic authors, internet searchers will often help you find the person's university web page or a curriculum vita, which is a document that presents a professor's education, teaching experience, research and publications, and other credentials. For writers not affiliated with a college or university, you might look for a personal, professional, or organizational homepage that indicates that the author has relevant expertise.

Timeliness: When Was the Source Published?

The importance of **timeliness or currency** will depend on your topic and source type, but you should always be aware of when a source was written or published. If you are working with archival materials, your primary concern will be that they are authentic to the period you are studying. When you are studying current events, you want the most recent news report or publication. Between these two ends, you will generally want to apply parameters that are appropriate to your topic of study.

The year a study was published is important because "facts" change over time. What was relevant about nutrition ten years ago might be very different today. Some fields are less time-sensitive. Research in the humanities tends to be less time sensitive than research in the social or physical sciences because scholars in the humanities usually study older, even ancient, texts that are considered to have withstood the test of time. However, even when studying historical periods or ancient texts, researchers will look primarily at the most recent analyses of that text to see what theories and methods other scholars are applying to the topic and to ensure that their research is placed within in the current academic conversation. Being current in the physical sciences is particularly important. For example, studies on lunar material were important in the 1970s because that's when all of the data was collected. Not much is written today on moon rocks and dust. It is obvious when a study is conducted based on its date of publication. Most online databases don't even provide access to articles before about 1995 because of the lack of currency of these articles. For most science research, you should try and keep the window to within 5 years.

Is the Source Relevant to Your Research Goals?

Beyond credibility and timeliness, you need to make sure that your sources are **relevant in terms of content** and that they treat the topic appropriately for your level of study and audience. Most importantly, your textual sources need to be effective in answering your research question. Even though a source may be academic and deal with similar content, it may not be appropriate or helpful in answering your research question. On the other hand, all of your sources do not have to be about the exact same topic or from the same field as your project. In fact, if you are conducting exciting and original research, it may be hard to find sources that are obviously connected. Researchers often make new knowledge by applying theories, methods, or data from a study in one field to another. In doing so, however, you need to establish relevance and account for differences.

How Do You Determine if an Academic Book Includes Relevant Research?

Academic books are usually quite lengthy and include specialized language that makes them difficult and intimidating to use. However, there are some ways to better navigate an academic book and more quickly find relevant information about your research topic.

1. Often academic books will often include an extensive index at the back of the book for looking up specific topics in the book.
2. The first chapter in an academic book usually lays out the argument for the entire book and discusses in some detail what will be included in each chapter. Reading (or even skimming) this chapter first will let you know which chapters to read more carefully for your research. Often you will find that you do not need to read the entire book to find the research that you need, as long as you have gained enough of the context for the topic you are reading about.

3. If the book discusses your research topic well, referring to the bibliography at the end of the book can be a good way of quickly finding more sources for your research.

How Do You Determine if an Academic Article is Relevant Research?

Other than using the database search techniques and search terms discussed previously in this chapter, you can usually begin to figure out if an article is relevant to your research by looking at the title. Academic articles usually have fairly detailed titles that describe the research. If the title of an article looks promising, the next step is to read the abstract. An abstract is a short summary of the entire study printed at the beginning of an article. Many full references in online library databases provide abstracts, which will give you a good sense of an article's relevance before you download it or look it up.

What Other Factors Help Determine if a Source is Useful?

The **location** of a study is important because the study may not apply to your own research. For example, computer access in Uganda or Sweden is different than computer access in the United States, so the role of technology in education is quite different and conclusions based on studies in these countries might not be valid for U.S. schools. You can tell where a study is

conducted by the location described in the methodology section or perhaps the location of the author's university or organization. This does not mean you cannot use a study about New Zealand's education system; it just means that you should keep your eye out for where a study was conducted, explain that information in your writing project, and consider how geographical or socioeconomic factors might have affected the results.

The **population** of a study is important because demographic factors can influence results. There is a reason why medical companies must test their products on a number of sample populations in order to gain FDA approval and why some drugs are approved only for men, or women, or people over the age of 12. Different demographic groups also display different behavioral patterns or psychological effects. Therefore, a study about how violent videogames affect urban teens cannot be generalized to make claims about behaviors in rural preschoolers.

The **level of specialization** or **academic expertise** reflected in an article or book is important because you have to make sure that you can understand the material well enough to work with it and explain it to your audience. A beginning radiology student probably won't benefit much from "Targeting Apoptosis by Hydroxymethylacylfulvene in Combination with Gamma Radiation in Prostate Tumor Cells," though experts would find the article comprehensible and useful. On the other hand, you should avoid sources that are too elementary for your level or audience. A general encyclopedia might help you get your grounding and find useful key words, but generally will not count as a credible source for college-level writing.

Discussion and Practice

1. Think about research assignments you have been given in high school and college. What rules or guidelines did your teachers give about the kinds of sources you should use? Why?
2. Annotated Bibliography – Use your school library, databases, and an internet search to locate a number of sources about a topic that you are interested in exploring. Write an annotated bibliography in which each entry includes: 1) a full citation of the work (see Chapter 11), 2) a brief abstract or summary of content, and 3) an evaluation of the source's research value based on credibility, timeliness, and relevance.

Do You Have to Finish Selecting Sources Before You Start Writing?

In the past, you may have approached research as an evening online or a one-shot trip to the library. You found sources; you put them in your paper. For most experienced researchers, however, research is an ongoing process. Scholars find a good source, read it, and then look up four more sources that the first one discussed. They read some studies, conduct field work, and then consult other sources to help them understand their findings. They get halfway through writing a draft and realize they need more support for an argument, so they go back to the library or Internet. This research cycle isn't the result of an ineffective first search, nor is it a waste of time. You should continue to refine your research project and read in different directions as you go in order to gain the best understanding of your topic and find the best

answers to your research question. Therefore, while we will discuss finding, evaluating, and working with sources as though this is a linear process, you will likely move back and forth between stages throughout your project.

How Do You Work with Published Sources?

Good research is about more than finding good sources and gathering data; you have to know what to do with these materials once you have them. This involves managing your sources and data, reading carefully, synthesizing material from multiple sources, and summarizing, paraphrasing, and quoting appropriately.

Managing Source Material

I vividly recall a night during my junior year when I was finishing a text-based research paper about *Jane Eyre*. As I re-read my work, I realized that I hadn't included the page number for a quotation, and my professor was a stickler about citation. Unfortunately, *Jane Eyre* is about 500 pages long, and the quote that I was using to demonstrate a particular linguistic pattern didn't provide much context. I wasted an hour finding that quote again, kicking myself the whole time for my carelessness. Early in graduate school, I wrote a 24-page seminar paper that used many sources and didn't finish writing until the morning before it was due. I ran out of time to type up my works cited page, so I made up a story about running out of paper and promised to turn in the works cited the following class. The professor wasn't amused and informed me that in scholarly writing the bibliography is one of the most important parts of a project. These experiences taught me the importance of managing my sources. It is even more important to keep track of original data. One of my colleagues lost an entire batch of survey results because of a software glitch because she had not saved the results anywhere else.

To make your research life easier, you should keep track of every source you find—even if you aren't sure that you will use it. Save your library database search results, bookmark every relevant website, save PDF copies of full-text articles in a separate folder on your computer, and keep any print copies you are using in a file folder. This will save you the frustration of re-searching your research. As you read, highlight passages or statistics you might use, or copy them directly onto note cards. Marginal notes can also help you find important passages again and remember where you might want to use them in your paper. As you collect interview, survey, or observation data, make sure to save copies to a flash drive or email them to yourself so that you won't lose important data if your computer crashes. Also, clearly label all of your files and keep them organized into appropriate folders.

As you research, maintain a **working bibliography**—a list of sources with full citation information and a brief summary or note about the source's research value for you. If you format these citations appropriately as you go, you'll only need to remove any sources you didn't end up using and your additional notes before copying and pasting the citations into your paper when you are finished. We discuss the finer points of citations in Chapter 11, and you should consult your professor or publication forum about what type of citation style to use before you begin your bibliography to save the hassle of reformatting. You should also be sure to clearly label notes you take while conducting your own original research with dates, times,

locations, and names and contact information, when appropriate because many formats require this information in notes or a works cited.

Recently, computer software has made organizing your sources much easier. There are over 20 programs for storing and organizing published sources. Although at first it may seem tedious typing in information on sources and saving snapshots or PDFs, it will end up saving you a good deal of time. Some tools like the Zotero research add-on for the Mozilla Firefox browser are built right into your searching environment. Also, keeping track of these sources will help you in future projects on the same or similar topics. As you move into your professional life, you will find yourself specializing more and more, so it is handy to have ready access to all the research that you spent so much of your time accumulating.

Reading Purposefully and Taking Notes

We know that you might not have time to read every word of every book that you consult, but you do need to read purposefully and take notes as you process source material. You probably skimmed each source during your selection and evaluation process—examining the tables of contents and indexes for books, reading the abstracts of articles. Now, you should read your selected sources carefully and consider how they relate to one another and to your own emerging interpretation or argument. Likewise, you should read and re-read interview or observation transcripts, taking notes about interesting examples and how your fieldwork relates to the textual research you have done. Everyone develops his or her own system for this stage of the research. You can take notes directly on books you own or articles you print, or you can make comments in or highlight electronic texts. You might make a chart to compare sources or keep note cards that you can later organize by sub-topic. You will find the most efficient process for you as you gain more research experience, but in any case, you should make sure that you copy passages that you might want to quote word-for-word and include page numbers in your notes. Also, use your notes to make connections between sources as you go. These note-taking activities will help you synthesize your research material (which we will discuss later) and integrate summaries, paraphrases, and quotations into your writing efficiently.

Although this chapter focuses on published textual sources, you can also apply many of these principles for evaluating, working with, and integrating sources to data that you generate through original research. Non-textual sources are defined as any data you may gather that is not from a book, a journal, or other published media. For example, in studying the culture of Ultimate Frisbee players, you may observe a local Ultimate Frisbee match. This observation of Frisbee playing—specifically your notes recording that observation—becomes a source of data. Similarly, if you interview someone, then your interview notes become a source. Responses on a questionnaire become a source. Finally, results from an experiment done in a biology laboratory are also a source. When it comes to incorporating evidence effectively in your writing, material from published sources and original research should be treated similarly.

How Do You Use Evidence from Sources?

After you have decided what evidence you will use in your paper, you need to decide how to integrate that material most effectively. Generally, scholars bring research evidence and the work of others into their writing through a combination of summary, paraphrase, quotation, and reference or citation—though source integration practices vary by discipline and citation style. In humanities writing that follows Modern Language Association style (MLA), it is common to use present tense, cite authors by their full names, and provide direct quotations from the text. In contrast, the citation style for the National Library of Medicine (NLM) requires passive voice, cites authors only by last name and initials, and actually prohibits the use of direct quotations. Some fields quote extensively and discuss each work they reference, while others will make more general references to prior research, followed by a parenthetical list of multiple studies by author and date. Chapter 11 presents more details about MLA and APA— the more common formats for college writing. We won't dwell on the details here, but you should make sure to follow the appropriate conventions for integrating and citing source materials. For the rest of this chapter, we will focus on how to integrate material through quotation, paraphrase, and summary with direct attribution.

Quotation

Quotation abuse is a common weakness for inexperienced writers who tend to quote too much, too often, or fail to insert quotations smoothly into their own writing. If you quote too much, your paper will seem like a patchwork of others' ideas instead of your own, so you need to be selective about what you choose to quote directly. In general, you should only quote a source when the language of the original is particularly evocative, technical, or well-written. Basically, if there is no way that you could say it better, quote it. You might also want to use a direct quotation if the source will lend more credibility to your claim or, alternatively, you want to be clear about a point that you disagree with. When you identify a passage that you want to include verbatim, make sure that you transcribe it *exactly*. If necessary, you can make minor alterations to make the quoted material fit smoothly into your own writing. For example, you can cut nonessential material and use ellipses or . . . to indicate that something has been deleted. You can add a word or phrase in brackets [like this] to provide necessary clarification for readers. You can also change grammatical features like verb tense and pronouns, again indicated by brackets, to avoid shifts that might be jarring to readers. Any changes you make should not detract from the intent or content of the original. Make sure that all quoted material is set off by quotation marks or block quote format and always provide a clear citation.

Sometimes, you might only need to quote a brief passage, especially if you want to use technical vocabulary or a phrase that would be difficult to paraphrase, as Jody Keisner (2008) does in the following example from "Do you Want to Watch? A Study of the Visual Rhetoric of the Postmodern Horror Film":

> Slasher films are frequently snubbed as sensationalized low-culture thrill by film reviewers and critics; in *Narratology*, Mieke Bal calls this the "hierarchal subordination of visuality to language" (165).

Longer direct quotations can be used to expand on summaries or paraphrases, and excerpts longer than four lines are generally set off using the block quote format, as in the following example from "Exploitation or Fun? The Lived Experience of Teenage Employment in Suburban America" by Yasemin Besen (2006). (Look at Chapter 7 for the full article):

> Ritzer (2000) depicts such service work as "McJobs" that are boring and dehumanizing, in part because they involve deskilled, routinized labor that largely eliminates employee discretion and creativity. Such jobs are controlled by detailed rules and standardized techniques imposed from above.
> From the employee's perspective, McJobs are irrational because they don't offer much in the way of either satisfaction or stability. Employees are seldom allowed to use anything approaching all their skills, are not allowed to be creative on the job. The result is a high level of resentment, job dissatisfaction, alienation, absenteeism, and turnover. (Ritzer 2000, 137)
> Robin Leidner (1993), in Fast Food, Fast Talk, similarly depicts these jobs as detailed and scripted, in which the workers are left no autonomy and power.

Paraphrase

When you want to cite an idea from a published source but the language doesn't warrant a direct quotation, you should paraphrase. Paraphrasing involves capturing an idea, claim, or support and presenting it in your own language. To paraphrase successfully, you must do more than change a few words or re-order the sentence. The goal is to explain source material clearly for your readers while integrating the ideas of others smoothly into your own writing. Paraphrasing allows you to adjust the level of diction and tone more than direct quotations. Even if you use your own words, however, you still need to cite your source and page number(s) to avoid plagiarizing original content.

The following paragraph from "Leisure Time Boredom: Issues concerning College Students," by Benjamin D. Hickerson, and Brent A. Beggs (2007) is written in APA style and reflects common practice in most science writing, where past research is often paraphrased with little to no interpretation, followed by the citation.

> For many young adults, the college years are a period of expanding freedoms and focusing interests (Gitelson & Thomason, 1992). College is seen as the last stage of formal education for most people and it is also one of the last structured opportunities for individuals to form leisure time behavior patterns before they move into the workforce (Cheng et al., 2004). The college environment has a unique influence on leisure behavior, including different patterns of free time availability and the acquisition of new activities. Leisure participation in college students has long-term ramifications as it molds attitudes and behaviors leading to continued recreation participation in later life (Gordon & Catalbiano, 1996; Hultsman, 1993).

Summary

Like a paraphrase, a summary presents source material in your own words, but a summary should be a concise report of an entire source or a significant part of one. While summaries in research writing can range from one sentence to several paragraphs, the goal is to capture the primary content or thesis of a work and perhaps the main points or claims the author makes to support his or her argument. Generally, summaries include only these larger ideas, rather than details. In writing a summary, you should express the main ideas or claims in your own words, though it is acceptable to include brief quotations. You should also present the author's intent and content fairly and avoid inserting your own opinions and interpretations. Make sure to clearly identify the source you are summarizing and use transitions to make clear distinctions between the material you are summarizing and your own claims or interpretations.

In the following excerpt from "Do you Want to Watch? A Study of the Visual Rhetoric of the Postmodern Horror Film," Jody Keisner (2008) includes a concise summary of a 177-page book before shifting to the focus of her own work.

> The focus for this examination will be on postmodern slasher movies, what Isabel Cristina Pinedo refers to in *Recreational Terror* as those horror films produced after 1968. The first principle of postmodern horror relies on the man/monster who already threatens an already violent and untrustworthy social order. Second, postmodern horror does away with binary logic by blurring the distinctions between good and evil. Third, postmodern horror occurs in a world where one's ability to adapt to their "supernatural" surroundings or monster-villain determines their ability to survive. In other words, logic and reason fail in this world and those who attempt to use them also fail at their attempts to survive. Fourth, postmodern horror resists closure, with the man/monster rising from the dead/undead or the protagonists' systematic deaths (Pinedo 5). For this discussion, the psychological and social effects of slasher movies will be explored, with emphasis on the 2003 thriller *feardotcom.*

How Do You Use Published Sources Make Arguments?

For new scholars, one of the more frustrating things about creating arguments from published sources is figuring out how to assemble all those pieces. You have read four or five articles, large sections or chapters of books, some online sources, and you have a whole list of material on your hard drive—how does it become an argument?

Picking that right piece of published evidence is akin to a lawyer in a court case finding that right piece of evidence to convince a jury; sometimes you will find the perfect evidence and you simply have to display it for your audience, and sometimes you have to provide a bit more context and explain how the evidence supports your case. Whether arguing in court, writing a paper for school, or persuading a board of directors to follow your new business plan, you will

get better the more you do it. However, here are three strategies that you may find helpful when dealing with published sources.

The SIMPLE strategy

Simply placing a quote, paraphrase, or summary of a source after a claim that you are making is sometimes all that is needed. This is useful if you are unsure if something is common knowledge or not, or whether you are dealing with obscure but nonetheless factual published sources about history, culture, or the like. The simple strategy tells your reader that your claim has evidence without much additional comment. Avoid using the simple strategy when there is some controversy that calls for additional explanation, however, and be aware that some professors, especially in the humanities, prefer that you clearly introduce quotations rather than just "dropping" them into a paragraph.

The AND strategy

The AND strategy is used when you are connecting evidence together to corroborate your point. You may be familiar with the common situation on television police shows in which a suspect is asked for an alibi. If another person can account for the suspect—"and I was with Carey"—that provides more assurance than if the suspect was by him or herself. When using published sources, that extra "and" helps parts of your argument in the same way. Use AND when you want to support a claim from a questionable source, you need to emphasize a claim, or you need to show the amounts or types of evidence and claims that exist about your topic. You will notice the AND strategy when you see words like *and*, *in addition*, *furthermore*, *also*, and *for example*. For new researchers, the question sometimes is, how do you know when to stop? Unfortunately, there isn't an easy answer—it all depends on what you are trying to accomplish. In the following example, "White Rappers and Black Epistemology," you will see that the AND strategy is used to show the popularity of white rappers by showing the amount of white rap albums sold.

The BUT strategy

The BUT strategy is used when you are trying to show a disagreement—to create a question or claim that might follow. The strategy is used when you want to show contrast or to counter a point that has been made in a published source. Use BUT when you want to show that sources haven't come to an agreement, to open up the possibility for alternative solutions, or to emphasize the importance of your research (after all, if everybody agrees about something, there's no real need to do further research). You will notice the BUT strategy when you see words like *but*, *however*, *although*, and *while*. Most counterarguments in academic and professional writing rely on a dual BUT strategy in which the author shows controversy by beginning a point with an alternative viewpoint and then follows it up with a BUT strategy. It is important to remember that too much discord and disagreement when you are using published sources can be confusing to your reader, so make sure to corroborate (AND) more than create disagreement (BUT).

Both the AND strategy and the BUT strategy consists of connecting two or more sources together. This is synthesis. Synthesis is important because it creates a far richer argument than

just using one source to describe something. In fact, synthesis can be used to assemble a whole essay about a topic, as we will show you in the next section, and it is a central method in text-based research, as you will see in Chapter 6.

Let's look at how two article introductions are put together using published sources. In both cases, these are **literature reviews** that lead to research questions, one in **text-based research** and one in **quantitative research.**

Example #1: Text-based Research

White Rappers and Black Epistemology
Paul J. Olson and Bennie Shobe, Jr.
Journal of Popular Culture 41(6) 2008

Rap music is a relatively new musical genre that has experienced many changes throughout the three decades of its existence. Beginning on the streets of the Bronx in the 1970s, rap has evolved from what was essentially a form of poetry expressing the lifestyle and discontent of inner-city black youth (Rose, *Black Noise* 2) into a multimillion dollar business. Rap now takes many forms from the party-oriented "old school" to the "east coast" or "west coast" versions of "gangsta rap." Christian rap can be found in the United States, although typically not on mainstream FM radio, and rap has become an international phenomenon with rappers arising in European, South American, and Asian nations. This article, however, will focus exclusively on the United States and the rise (and fall) of white rap artists.

For all of the changes that rap has gone through, it has been from its inception and continues to be an outlet for oppressed, inner-city African American youth to express their grievances against the institutions that are responsible for many of the social problems rampant in their communities. Earlier academic examinations of rap music emphasize the ways in which it provides a voice and opportunities for those long ignored by white society. Rap music has provided entrepreneurial and economic opportunities for some inner-city African Americans who have few other employment options because of the economic realities imposed on the ghetto from the outside (Basu 380 – 81). Rap is a form of resistance against the racial and economic pressures placed on the truly disadvantaged. It is a medium for challenging authority figures, especially the police (Rose "Fear of a Black Planet" 278 – 79; Rose *Black Noise* 106–14, 128 –29; Cummings and Roy 71 – 72). Rap music is a form of political expression and a form of "oppositional culture" (Martinez 266) for a group that the American political system, media, and white majority abandoned long ago.

Rap music has expanded beyond the confines of the ghetto, not

> This historical claim is supported by a SIMPLE paraphrase

> Another claim, another SIMPLE paraphrase of support

> The AND strategy culminates with a contemporary example followed by an academic quote. Because it could be controversial, there is plenty of AND support here.

only in terms of who is buying the CDs, but in terms of who are making the CDs as well. While rap's early pioneers were black, and the Sugar Hill Gang was able to land on the Billboard Hot 100 chart in 1979 with "Rapper's Delight" (*Billboard* November 10, 1979), wide-scale public attention was not paid to the genre until white artists began to ap-propriate it or at least help it along. Blondie's "Rapture" was one of the first rap songs to get a substantial amount of radio air time and was the first to reach number one in the United States in 1981 (*Billboard* March 28, 1981; Ogg and Upshal 52). Run DMC's *Raising Hell* album was a huge commercial success spending an incredible sixty weeks in the top 100 of the Billboard Pop Albums chart in the mid-1980s (Billboard August 1, 1987), but the success was aided by their cover of Aerosmith's "Walk this Way" and the white rockers' appearance in the unforgettable music video. The Beastie Boys' *Licensed to Ill* was a blockbuster album, brought rap into the suburbs, and became the first rap album to top Billboard's album charts (*Billboard* March 1, 1987; Ogg and Upshal 89 –90) where it stayed for seven weeks (*Billboard* April 18, 1987). Vanilla Ice's *To the Extreme* bumped MC Hammer off the top of the Billboard charts (Diehl, "Pop Rap" 124; Tabb Powell 253), and it stayed there for sixteen weeks (*Billboard* March 23, 1991). Millions of copies of the album were sold, and Vanilla Ice's signature song on the album, "Ice Ice Baby," spent 21 weeks on the Hot 100 chart (*Billboard* January 26, 1991). Finally, it would be difficult to argue that any musician, much less rapper, had a greater impact on music or pop culture at the beginning of the twenty-first century than the Oscar-and Grammy-winning Detroit rapper Eminem, an artist who "may have been born white but . . . was socialized as black" (Rux 21). Given the history of rap music and the intimate connection be-tween rap and inner-city black culture that authors like Basu (383 – 84) and Baker (62) discuss, particularly in the gangsta rap genre that spawned Eminem, how have white individuals and groups been able to successfully market themselves as legitimate rappers?

Example #2: Quantitative Research

The relationship between lifestyle and campus eating behaviours in male and female university students
Rebecca A. Jackson, Tanya R. Berry and Michael D. Kennedy
College Student Journal 43(3) (Sept. 2009)

Consideration for healthy eating, weight control and general wellness is of growing importance within Western society (Tremblay, Katzmarzyk, & Willms, 2002; Taylor, Evers, & McKenna, 2005). Despite this focus on wellness North Americans are on average becoming heavier, sleeping less, and experiencing more stress (Tremblay et al., 2002).

In science research, AND often comes in the form of a claim followed by citations from studies that have found the same or similar evidence.

In an efficient way, they use an AND, AND, AND, leading to the BUT as the last sentence, setting more questions.

Weight gain has been specifically linked to undergraduate university students who experience stress due to the workload of attending university (Serlachius, Hamer, & Wardle, 2007). In addition to the stresses of university life, the diet of the average university student is inadequate and reflects poor eating behaviours due to the price of healthy foods and exacerbated by easy access to fast food. Furthermore, these inadequacies tend to be gender dependent as females tend to choose healthier foods (Driskell, Meckna, & Scales, 2006). It is understood that university students also exercise less than the recommended guidelines and do not meet healthy lifestyle guidelines (Brevard & Ricketts, 1996; Driskell, Kim, & Goebel, 2005). General population research has shown that lifestyle and gender may have potentially significant influences on eating patterns and behaviours (Driskell et al., 2006; Spriegel et al., 2004; Schussler et al., 2006), however the eating and exercise behaviours of Canadian university students are not well described.

Some research has described the lifestyle of students including how much time is spent on campus, involvement in extra-curricular activities, living arrangements, time spent working and volunteering, and time spent studying (Joyce, Hanson, Ebro, Ward, & Fair, 1996; Papadaki, Hondros, Scott, & Kapsokefalou, 2007). However, this research either focuses on the access to food and eating patterns or describes the lifestyle of students (Buscher, Martin, & Crocker, 2001; Driskell et al., 2005; Driskell et al., 2006). Thus the purpose of this investigation was to describe the on-campus eating behaviours of male and female undergraduate university students and to further determine the influence that select lifestyle factors may have on campus eating behaviours.

> The last paragraph emulates the previous paragraphs. AND leading to BUT. The AND establishes what is known, and the BUT establishes what still needs to be discovered and leads to the specific research question— what this particular study will try to find

What Kinds of Writing Use Published Sources?

Although all research writing uses sources, some types of essays or parts of research reports are based almost exclusively on published materials. Chapter 6 addresses some kinds of writing about texts in more detail, but there are two types of writing that rely specifically on sources. The first is **meta-synthesis**. In this type of writing, a researcher synthesizes sources in order to interpret and analyze either study results or texts to create a new argument. Meta-syntheses compare various methods and findings from past research to create a composite argument. The second type of writing is called a **literature review**. Literature reviews establish the history and need for a specific research study—in contrast to a meta-synthesis, literature reviews lead to asking questions rather than answering them.

Meta-Synthesis

The act of synthesis is one of the most common, and perhaps difficult, practices in research writing. You may be familiar with synthesis from chemistry, in which you combine two or more

elements or substances to create a new compound. In writing, you bring together two or more texts and combine them with your own analysis or ideas to generate a new text. To write an effective meta-synthesis, a researcher needs to read, understand, and make connections between multiple sources. Then, using summary, paraphrase, and quotation, the writer must convey information to his or her readers in a way that makes sense of the sources and provides a clearer understanding of the topic or ongoing conversation.

Some situations where synthesis writing is useful are in reporting events or explaining a concept, controversy, or other phenomenon. The purpose is to explain partly what has already been said on the subject. The issue is that you can never collect everything on a topic, so selecting what to use and what to ignore creates an argument no matter how objective you try to be. Wikipedia or encyclopedia entries and some types of textbooks are examples of this synthesis. If a textbook could collect everything about the topic, there wouldn't be a need for multiple textbooks on certain topics.

Some synthesis writing is more thesis-driven—its purpose is more overtly argumentative. Such syntheses use multiple sources to present a unique argument or interpretation. This type of synthesis not only reports what has been published about the subject, it makes a clear argument based on that source material. This thesis is debatable; other educated readers might study the same texts and come to a different conclusion. Some writing in business is argumentative synthesis in which a model or system is formulated from previous or alternative models. In sciences, meta-analyses in which numerous studies on a single topic are combined to make a final claim are also examples of synthesis-based writing. While you may have a thesis in mind when you begin your research on a topic, researchers often find their thesis or take a side *after* reading multiple sources on an issue.

Developing Content
In preparing to write a meta-synthesis, you should engage each text carefully, following the guidelines for working with sources listed above. In some of your classes, the professor will assign specific texts and may suggest specific themes or ideas to emphasize; in other cases, you will need to select appropriate texts that you can put in conversation with one another. Start by making sure that you understand each source and can summarize it briefly. As you read and take notes on your chosen texts, you should pay particular attention to patterns and discrepancies in the definition of terms, data and sources used, and lines of argument. Some factors to consider when comparing and contrasting sources for a synthesis include:
- Chronology – You may notice changes in data or attitudes over time.
- Location and population – Where the study took place and who the researcher studied influence data and possible application.
- Disciplinary angle – Researchers from sociology may emphasize different aspects of a phenomenon than cultural studies scholars.
- Method – For example, data resulting from interviews may expand on or contradict data from surveys.

- Definitions – Statistics on poverty, for example, will vary depending on how the researchers define poverty.
- Sources and interpretation – two critics might write about the same text, but use different interpretive frames and thus come to different conclusions.
- Coverage – No study is exhaustive, so looking at the gaps and overlap in your sources can help you define core issues in a field or find a thesis or research question.

These features or other patterns that emerge from your reading will become the main points for your synthesis.

Organizing Your Synthesis

How you structure your synthesis is critical, so you might want to develop several outlines to determine the best way to bring your sources together. Most meta-synthesis follows some variation of the following organization.

> **Introductory Paragraph(s)** – Begin by stating the topic and/or purpose of your synthesis. For a meta-synthesis using just a few sources, clearly introduce each work by providing the title, author(s), and perhaps a brief summary. For a more extensive meta-synthesis, it may be more effective to note the types of sources you will deal with and then introduce each work fully the first time you bring it in to your essay. Because you can only cover a limited number of sources in any synthesis, it may be effective to explain how or why you selected particular texts. It is usually effective to end the introduction with a forecasting statement that lets readers know what topics, patterns, etc. you will discuss.

> **Body** – The body of your synthesis should be organized by topic or theme rather than discussing one source in paragraph one, the second in paragraph two, and so on. Each paragraph or subsection should include a clear statement of topic and include information from multiple sources.   Be sure to indicate which source the material comes from using clear attributions or citations. Explain the relationship between sources using your own transitional phrases and commentary.

> **Conclusion** – How you write your conclusion will depend on the type of synthesis you are writing, but generally you will want to restate major points and how they relate to the larger topic or purpose of the synthesis. Your concluding paragraphs might also: evaluate the strengths and weaknesses of the works discussed, state your thesis or what side of the debate you support; point out gaps in the existing research or questions the collection of sources raise but do not answer.

Literature Reviews

Literature reviews share many features with meta-synthesis, but they go beyond synthesis of existing sources to set up an original research study and lead up to a research question. The literature review sections of academic articles are usually quite similar across the disciplines.

Most of the research articles presented in the following chapters include literature reviews; often these sections are clearly labeled, though not always. No matter the field, literature reviews share certain features. 1) Literature reviews *summarize previously conducted research* that relates to your research question. 2) Literature reviews are a place to *define important terms* that you will use in your analysis of your research later. 3) Literature reviews also serve as *an argument for how your research question is answering something new* that has not been studied before. While literature reviews may differ quite markedly in organization, formatting, and citation styles, these three features remain the same regardless of whether you are writing about research conducted in the humanities or the physical sciences.

Summarizing Previous Research

In your literature review, you will want to find as many primary source research studies on or related to your research topic as possible and summarize them. In this summary, you will definitely want to explain how this previous research relates to your own research. Usually you will want to find primary sources that are fairly recent, the more recent the better. For example, for research in the physical sciences, try to find sources that are no more than five years old; there is a bit more leeway in the humanities, although recent sources are still usually considered superior.

Summarizing previous research studies is important because reviewing other studies about similar research questions adds credibility to your research by proving that your research question is worthwhile. Finding this corroborating evidence becomes even more important if your research question is unusual, unique, or in some way different from the norm of research questions that typically get asked in the field you are writing in.

Defining Terms

The literature review is the place where you will define the terms that you will use in your analysis of your research later. For example, for text-based research, the literature review is where you will want to define the interpretive lens you will be using in your textual analysis. In other words, you will define the theories you will use in your analysis and how exactly you are going to use them. Also, if you are conducting a qualitative study, you will want to define the theorists you will use in your analysis and how you will use them as well.

In academic writing, it is vital to define your terms, especially since specialized words—words that are often referred to as jargon outside of an academic setting—take on different meanings depending on the discipline in which they are used. These words are quite precise, so be careful to explain exactly how you are defining and using them in your analysis. Often, scholars will refer to their previously published sources to define terms and interpretive approaches.

Demonstrating New Knowledge

All research builds upon previous scholarship. So, while the literature review is a summary of previous research studies on your topic, it is also much more than that. The literature review is

actually an argument for how your research question addresses something that has not been studied before. In other words, the literature review summarizes previous research in order to show how your own research is new and needs to be conducted. Showing how your own research is new is called creating a research gap. You need to show that there is a "gap" in the previous research—something that previous research has not done—and show how your research will create new knowledge about the topic.

Usually, the beginning of the literature review summarizes the previous research related to your research question. This is also where you will want to explain how this previous research is related to your own research. However, remember that in summarizing previous research you are also beginning to build a case for why your own research is new and different from the previous scholarship. Sometimes other research studies that you are summarizing will directly help you establish the relevance of your topic by actually stating that no one else has researched your question and that it needs to be studied. This is not often the case, however, so it will be your job as a writer to make this argument clear, using the previously conducted research as evidence.

The statement of the research gap often comes at the end. Here you want to explain in a clear and concise statement what you are contributing in your research that is new or different from the other sources you have found on your research topic.

Here are some strategies to help you develop your research gap and differentiate your study from the previous research you have found:
- In what ways might your research extend previous research further? In other words, in what ways might your research take previous research to the next step, perhaps by being more extensive or more in-depth?
- Are there any problems with how the previous research was conducted that you could do better in your own study?
- Was there interesting research that was conducted on one particular population that has not been conducted on another population before?
- Are you examining a social phenomenon or specific aspect of culture that has not been studied before?

Whether you are writing a source-based essay that stands alone, such as a synthesis, or a review of the literature that sets up a study using other textual, qualitative, or quantitative methods, your primary concern should be locating and integrating the best data for your purpose.

Writing Projects

1) *Source Comparison* – After completing the group comparison of academic and popular sources about a topic from the **Discussion and Practice** earlier in this chapter, write an essay in which you analyze and compare different sources about the topic. What similarities and differences do you notice in content, organization, style, and source use or citations? How do these features reflect the rhetorical situation (refer to Chapter 1 for a

definition of rhetorical situation) in which each piece was written? When might it be appropriate to use each source in your own writing?

2) *Argumentative Meta-Synthesis* – Write an essay that synthesizes at least three sources of evidence on a narrowly-defined topic that you are interested in exploring (if you completed an annotated bibliography from **Discussion and Practice** earlier in this chapter, you might use those sources). You should find multiple sources from the library and the Internet and analyze their approaches and content, looking for patterns, similarities, and points of debate. Next, introduce and summarize each source and write a meta-synthesis that provides an overview of what has been written about your topic and makes an argument about the topic and/or sources. Which evidence is most compelling? Who do you agree or disagree with? Why?

3) *Literature Review* – Write an essay that provides an overview of research on a specific topic. (You might use the same topic from Project 1 or 2 and extend your research). You will need to find multiple articles and analyze their approaches and content, looking for patterns of consensus and points of debate. You might begin the essay by discussing why research on this topic is significant, and conclude by noting any gaps in the research that future studies should address.

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Chapter 4
Researching Ethically

In any research endeavor, the most important quality is that of the researcher's integrity. It doesn't matter how well-written, how popular, or how important a finding may be, if an audience of fellow scholars doesn't trust the source, it doesn't matter. In fact, you may have heard of newspaper reporters, professors, popular authors, and scientists who have plagiarized or falsified data, leading to disgrace, lawsuits, and loss of job. Because so much of what goes on in universities is research-based, many universities have honor codes that can lead to harsh punishments—including expulsion—for those found guilty of academic dishonesty. Although issues of ethics in research can be quite complicated, we are going to briefly cover three ethical problem areas you should be aware of before undertaking any research project: plagiarism, data falsification, and mistreatment of human research participants.

What is Plagiarism?

Plagiarism is a serious form of academic dishonesty. Specifically, it means to steal someone else's words and ideas and portray them as your own. There are three types of plagiarism:

1. The most serious type of plagiarism occurs when students turn in work that another person has written as if it were their own.
2. Only slightly less problematic is not putting quotations around any writing that is word for word from another text. In other words, by not quoting writing that is word for word from another author, students are stealing that author's writing and dishonestly portraying it as their own.
3. Finally, not giving credit to someone else's original ideas is considered plagiarism. If an author's ideas are not considered common knowledge, you need to cite the author— even if you are not using that person's writing word for word. In fact, it is especially important to cite the author of the ideas you are paraphrasing. With good reason, stealing other people's ideas and theories and portraying them as solely your own is another form of academic dishonesty.

What is Common Knowledge?

It may seem like common sense to know when to give credit for a quote; after all, with a quote the writing is obviously word for word from another's writing. However, knowing when to give credit for others' ideas can be a bit more complicated. Certain facts or ideas are so well known that it is not important to cite or give credit for them. These well known facts are called **common knowledge**. Common knowledge refers to commonly known facts like the boiling point temperature of water is 100 Celsius or 212 Fahrenheit. Famous historical or current events are also usually considered common knowledge. For example, the fact that George Washington is our first president is common knowledge.

In contrast, facts or ideas that are not well known or may be controversial need to be cited. For instance, the exact number of soldiers who died during the Battle of Gettysburg during the American Civil War needs a citation by it. The percentage of water that makes up the Earth's surface needs a citation. Since an exact count of those who fell at Gettysburg will vary from source to source, and since measuring the percentage of water that makes up the Earth's surface is, at best, an estimate, a source is required for either.

However, giving credit for someone else's ideas goes beyond just historical or scientific facts. Giving credit for someone else's ideas is especially important when using someone else's theories or interpretations of art, history, philosophy, literature, etc. For instance, Roger Brown and Albert Gilman (1989) use politeness theory to investigate how politeness is portrayed in four of Shakespeare's plays. In their analysis though, they are careful to give Penelope Brown and Stephen Levinson (1987) credit for developing politeness theory—the theory that distance, power, or the increased likelihood of unwanted demands increase politeness between two people.

What can be considered common knowledge depends a lot on your audience. If you are writing for an audience of geologists who know the percentage of water on the earth's surface, than you probably do not need to cite this for them. That is, unless you are challenging the previous scholarship on this matter. When in doubt though about what is common knowledge and what is not, always err on the side of citing. You will almost never be faulted for over-citation. However, readers will have serious problems if you do not cite enough.

Plagiarism in Other Contexts

Of course, plagiarism isn't just an issue in classroom settings. In November of 2009, reviewer Jolisa Gracewood documented more than 16 instances of plagiarism in Witi Ihimaera's novel *The Trowenna Sea*. Ihimaera, a distinguished professor and author of *The Whale Rider*, admitted to using other people's work without attribution in his new novel, as well as in a previous book, *The Matriarch*. Ihimaera agreed to buy back all of the books that had been sold and release a new edition that identifies the borrowed material, but Gracewood and others argue that the book should be completely rewritten or abandoned. Either way, Ihimara's reputation as an author and his standing at Auckland University is permanently tarnished. Literature and the humanities value the work of individual authors and recognize that writing original work is hard, so stealing another's ideas and words is a particular affront to this community's values.

Some other discourse communities have different ideas about plagiarism. According to "Cultural Perspectives on Plagiarism," from Washington State University's website, "In some traditional cultures in Asia and the Middle East, for example, college students are expected to quote or paraphrase the best known political or religious authorities without attribution because readers, especially professors, are expected to know what texts are being circulated. Indeed, it might be a serious insult to the teacher if the student writer formally cites the text being borrowed." In addition, some digital media communities promote sampling and remixing

as an artistic practice. There are also countless acts violating intellectual property on the internet every day that have nothing to do with cultural or aesthetic values. The ability to cut and paste makes plagiarism easy, and when you see the same material on multiple sites without attribution, it can make it seem like an acceptable practice. On the other hand, comprehensive internet search engines make detecting plagiarism easier than ever, too, so you really take a risk when you borrow material without documenting it properly. While intellectual property is a complex issue, we want to make one point very clear and simple: in Western culture, and especially in academic contexts, plagiarism is a serious breech of ethics that you must be careful to avoid.

How Do You Avoid Plagiarism?

Simply put, if you use an idea, words, or data from another source, whether you found that source online, in a book, or heard it from a professor, you should acknowledge that source. You can acknowledge the source through citation, quoting, and paraphrasing. (For more information about how to document sources, see Chapter 11.)

How Do You Cite a Source?

Citation means giving credit for a quote or idea to the original author that wrote the quote or came up with the idea.

There are many styles or specific ways to cite an author. However, in all citation styles, the most important thing is to always give credit to the author of the information you are citing and include the author's name either right before or right after the information. In some styles, you can indicate the author's name with a numbered footnote; however, the footnote of the author's name still comes right after the information you are using from that author.

The next two sections will discuss specifically how to cite information that is quoted and information that is paraphrased or summarized.

Discussion and Practice

1) How does citing another author's work add to your ethos as a writer?
2) If you are writing for an audience of other researchers, why is it important to cite and give credit to other's work?
3) What purposes does citation serve in research?

How Do You Quote a Source?

Always put in quotation marks any writing that is word for word from another text that is not your own. Quote even if the piece of text you are using is not a complete sentence. In fact, quote even if you are using a few words from another piece of writing. Dropped quotes—where quoted material is inserted without any explanation—are a particular pet peeve for professors.

No quotation should stand alone; instead, you should introduce the source material, present it clearly, and then comment on it in some way.

When quoting a source, the best choice is to introduce the author of the quote before you give the quote. This gives your readers more context for understanding who wrote the quote. If the author is relatively unknown to your audience but the quote is important to your research, you might even add more background and explain what qualifies the author to give the quote.

MLA

With an author introduction before the quote:

> Jean Twenge and Keith Campbell found that "high school students' positive self-views increased over the generations. The majority of high school students now anticipate being 'very good' at important adult roles, compared with students in the 1970s, who more commonly anticipated being 'good'" (1084).

No author introduction before the quote:

> It was discovered in one study that "high school students' positive self-views increased over the generations. The majority of high school students now anticipate being 'very good' at important adult roles, compared with students in the 1970s, who more commonly anticipated being 'good'" (Twenge and Campbell 1084).

APA

Quoting in APA is quite similar to quoting in MLA—with a few important exceptions. 1) The year of the study always goes right after the author's name. 2) The first name of the author is not included. Instead it is abbreviated or left out completely.

With an author introduction before the quote:

> Twenge and Campbell (2008) found that "high school students' positive self-views increased over the generations. The majority of high school students now anticipate being 'very good' at important adult roles, compared with students in the 1970s, who more commonly anticipated being 'good'" (p. 1084).

No author introduction before the quote:

> It was discovered in a recent study that "high school students' positive self-views increased over the generations. The majority of high school students now anticipate being 'very good' at important adult roles, compared with students in the 1970s, who more commonly anticipated being 'good'" (Twenge & Campbell, 2008, p. 1084).

How Do You Paraphrase a Source?

Paraphrasing is summarizing writing that someone else wrote and putting it in your own words. Of course, the most important thing to pay attention to while summarizing is that you carefully and completely summarize the text in your own words. If even a phrase is word for word from

the original text, put quotations around it—or work harder to put that phrase in your own words.

Another thing to keep in mind when paraphrasing is to accurately depict the text's original meaning as much as possible. While you might omit a few details in your paraphrase, make sure you are still remaining factually accurate to the original text. Making up or implying information that was not in the original text is just as dishonest as using language that is in the source without quoting.

Paraphrasing can often be difficult when you are reading something for the first time or reading about a topic you have just been introduced to. If you are having trouble understanding a text, use a dictionary. However, often in college, concepts might still be too complex to understand even with the aid of a dictionary. In this case, talk to you instructor about the ideas in the text or talk to a classmate who understands the material better than you do. And even if you do understand the text, talking about the text with someone else could better help you put the meaning of the text in your own words before you start writing. Finally, to help you better paraphrase, read the text carefully, jotting down in your own words some notes of the most important ideas. Then close the text and put it away. Then start to paraphrase the important ideas of what you just read.

Finally, because you are still referring to the ideas of another author, remember to still cite and give credit to that author. Just as with quotation, it is always preferable to introduce the author of the text you are paraphrasing to give the reader more context for the information you are writing about.

MLA
With an author introduction before the paraphrase:
> Jean Twenge and Keith Campbell found that high school students today have a higher self-esteem than high school students did in the 1970s. For example, they have a higher estimation of what they will be able to accomplish in their adult careers than the 1970's counterparts (1084).

No author introduction before the paraphrase:
> A recent study revealed that high school students today have a higher self-esteem than high school students did in the 1970s. For example, they have a higher estimation of what they will be able to accomplish in their adult careers than the 1970's counterparts (Twenge and Campbell 1084).

APA
With an author introduction before the paraphrase:
> Twenge and Campbell (2008) found that high school students today have a higher self-esteem than high school students did in the 1970s. For example, they have a higher estimation of what they will be able to accomplish in their adult careers than the 1970's counterparts (p. 1084).

No author introduction before the paraphrase:

> A recent study revealed that high school students today have a higher self-esteem than high school students did in the 1970's. For example, they have a higher estimation of what they will be able to accomplish in their adult careers than the 1970's counterparts (Twenge & Campbell, 2008, p. 1084).

Discussion and Practice

1) Paraphrase the following paragraph from Twenge and Campbell's 2008 study on student self-esteem:

   > "High school students in 2006 reported earning significantly higher grades than did students in 1976. Twice as many 2006 high school students reported earning an A average in high school (15.6%, vs. 7.7% in 1976); there was also an increase in those who reported earning an A or A-minus average (32.8%vs.18.3% in 1976)" (1084).

2) Peer Review: Exchange your paraphrased paragraph with a classmate. Make sure the paragraph is accurately paraphrased.
   - Are there any parts of the paragraph that are word for word the same as the original paragraph? If so, put quotations around those words.
   - Does the paraphrase accurately depict the meaning of the original paragraph? If not, give the writer suggestions on how to more accurately summarize the meaning of the paragraph while also keeping the paraphrase in his or her own words.

3) Exchange paragraphs, going over any problem areas and offering suggestions for revision.

How Do You Introduce Sources Effectively?

One of the more noticeable differences between writing in different academic and popular styles is how sources are introduced. As we stress throughout this book, when you quote, paraphrase, or summarize source material, you need to acknowledge your source and clearly place it within your argument. However, the specifics of this depend on your audience and purpose.

If you are writing for a **popular audience**, then the most effective way to introduce a source is by using clear attributions—phrases that identify the author, publication, and often provide additional relevant information. While it is almost always necessary to provide the author's name, you can strengthen your writing by including phrases that indicate why you are quoting them. Consider the following attributions that Liza Featherstone included in her article "Down and Out in Discount America" that appeared in a 2004 issue of *The Nation* about the impact of Wal-Mart:

> "A 2000 study by Andrew Franklin, then an economist at the University of Connecticut, showed that Wal-Mart operated primarily in poor and working-class communities . . ."

> "Al Zack, who until his retirement in 2004 was the United Food and Commercial Worker's vice president for strategic programs, observes that appealing to the poor was 'Sam Walton's real genius.'"

> "'I was practically born in Wal-Mart,' says Alyssa Warrick, a former employee now attending Truman State University in Missouri."

> "Sara Jennings, a disabled Winona reader living on a total of $8,000 [yearly] heartily concurred" that Wal-Mart coming to her area was a great thing.

Featherstone's attributions identify her sources, but they also explain why we should care about what these people have to say. In the first instance, she cites a respected academic. The second source has professional expertise and held a respected union position. The third source also speaks from her work experiences, but not a position of authority, while the final source represents the consumers affected by Wal-Mart. By pointing out academic and professional credentials, Featherstone establishes the credibility of her sources and improves her own ethos. By pointing to the personal experience of workers and consumers—note especially that she says Jennings is disabled and poor—Featherstone adds to the emotional appeal of her arguments.

When writing for an **academic audience**, the use of these contextual attributions is often discouraged. An academic audience will look at your works cited or references page to evaluate the credibility of your sources. An academic audience expects that you focus on the evidence you are adding and synthesizing rather than the background of the source of that evidence. For example, here's an excerpt from the literature review portion of a study about Wal-Mart that Charles Courtemanche and Art Carden conducted that appeared in a 2011 issue of the *Journal of Urban Economics*:

> Numerous studies have documented Walmart's negative impact on prices (Hausman and Leibtag, 2007, 2009; Basker, 2005b; Basker and Noel, 2009). Hausman and Leibtag (2009) cite data from studies showing that, even after accounting for discount cards and sales, Walmart maintains a price advantage of 8–27% on various food items. Basker and Noel (2009) estimate that grocery stores reduce their prices by 1–1.2% after the entry of a Walmart Supercenter but that Supercenters still hold a price advantage of 10%.

Note that we have no information about Hauseman and Leibtag, Basker or Noel in this passage, only that they conducted studies that were published. If we want to know more about these studies, we can seek them out by looking at the References page.

Discussion and Practice

1) A recent cause for concern has been the amount of "screen time" that adolescents are exposed to. Read the following two articles:
   "The Surprising Amount of Time Kids Spend Looking at Screens" by Alexandra Ossola in *The Atlantic* (http://www.theatlantic.com/education/archive/2015/01/the-surprising-amount-of-time-kids-spend-looking-at-screens/384737/)
   "Virtually impossible: limiting Australian children and adolescents daily screen based media use" by Stephen Houghton et al. in *BMC Public Health* (http://bmcpublichealth.biomedcentral.com/articles/10.1186/1471-2458-15-5)

   a. Compare how sources are introduced and described in the Ossola article versus the "background" section of the Houghton et al. study. What kind of information is provided by in-text attributions? Do the authors comment on the sources and their content? What are the advantages and disadvantages in integrating source material in these different articles?

2) Is it ethical for authors to frame sources in a more positive or negative light using leading attributions? Do some sources (e.g., The New York Times, Mother Jones, Fox News) change attribution strategies depending on the source? Does it matter if the sources are being cited in an academic article or a popular argument?

How Do You Document Your Original Research?

In some ways, the ethics of quoting, paraphrasing, and citing qualitative and quantitative research are the same as with text-based research. You will always want to carefully use your sources, citing them correctly. If you need to quote a source, then make sure to carefully put quotations around the part of the text that is word for word from that source. If you are paraphrasing a source, you need to make sure that everything you write is completely rewritten using your own words and that you are also accurately summarizing the meaning of the source.

When paraphrasing or citing from an interview or a study you conducted yourself, it is always a good idea to provide some context about the source just as you would when citing a text-based source. In APA, you would indicate this be writing (personal communication, date) after the person's name. In MLA, you would use the name you used in your text on your Works Cited page and provide context with the passage.

Interview in APA

One student, Megan Jones, was well aware that parents and teachers constantly feed teenagers' self-esteems (personal communication, 2009): "We are always taught to shoot for the stars because even if we miss, we'll land on the moon."

Interview in MLA

In a 2009 interview conducted with a student, Megan Jones, she agreed that parents and teachers constantly feed teenager self-esteem. She said, "We are always taught to shoot for the stars because even if we miss, we'll land on the moon" (Jones).

"We also cannot be sure whether the questions mean the same thing to respondents now as they did 30 years ago. This is a limitation shared by all survey researchers; for example, those examining cross-cultural differences cannot be sure whether the questions mean the same thing in different cultures. For example, being a ''very good'' worker might mean something different now than it did in the 1970s. Although this is a limitation, change in interpretation is also an indicator of change over time in attitudes. If the meaning of work is now different, that is also an interesting birth-cohort shift. Future research should explore whether there have been generational changes in work attitudes. In general, future research may tell researchers whether young people are less likely to feel that they must be above average in competence to feel satisfied with themselves and whether they have a less demanding image of work roles, and other social roles, than they once did" (Twenge & Campbell, 2008, p. 1085).

After carefully reading the paragraph above, identify what is wrong with the following sentences that use the paragraph as a source. Then correct each sentence so that they are **cited**, **paraphrased**, and/or **quoted** correctly:

1) The survey questions asked in this study might not have the same meaning to study participants in the 1970s as they do to participants today.
2) According to Twenge & Campbell, those examining cross-cultural differences cannot know for sure that their questions will have the same meaning in different cultures.
3) Change in how we interpret meaning also shows our attitudes change with time as well (Twenge & Campbell, 2008, p. 1085).
4) If the meaning of work has changed, that is also an interesting "birth-cohort shift" (Twenge & Campbell, 2008, p. 1085).
5) There should be more research done on examining whether or not there have been generational changes in work attitudes (Twenge & Campbell, 2008, p. 1085).

What is Falsification?

Falsification of data has been a problem for hundreds of years in science. The most blatant forms of falsification are rare—they include making up data or changing collected data to meet the researcher's needs. Less blatant forms of falsification include errors and cherry picking. Errors can occur when researchers mistype or mis-record an entry. Cherry picking is when a researcher selects only certain data from his or her research to support a particular claim rather than considering the whole dataset.

Data falsification often isn't an isolated issue as it can affect the process of creating new knowledge within a research community. Scientists often conduct further experiments based on reported findings; if they start from inaccurate reports, it could have negative effects on

their own work and research participants. Falsification also has serious consequences for those who commit it. In October, 2009, biotechnology researcher Hwang Woo-Suk was found guilty of embezzlement and bioethical violations for falsifying data on stem cell research and claiming to have cloned human embryonic stem cells when he had not done so. In addition to receiving a two-year suspended prison sentence, Hwang's falsified articles were pulled from journals and he lost his position at Seoul National University as well as his credibility as a researcher.

Data falsification doesn't just happen in the sciences. Another famous case occurred when Jayson Blair, a reporter for the *New York Times*, was found to have plagiarized or fabricated information for almost 40 stories in 2002 and 2003. In a number of instances, Blair claimed to have traveled to story locations and conducted interviews when he hadn't; instead, he made up details he never observed and invented quotes from people he had never spoken to. This breech of ethics was a serious blow for the *Times*, which was considered the "paper of record." The *Times*' editors launched an investigation, Blair resigned, and the whole situation raised a number of questions about journalistic ethics and the challenges facing print media. Falsification can occur within text-based research as well. Making up a quote or even mistyping a quote from a source can have negative consequences. After all, in the age of the Internet, a simple search can check the quotes or data cited from another source, and if they aren't exact, one's integrity as a researcher can be questioned.

How Do You Avoid Data Falsification?

The more blatant forms of data falsification can be avoided if you trust in your skills as a researcher and keep a close record of your data. Some of the great discoveries in science occurred because researchers found something different than what they expected, and trusted their data and collection methods. If you hypothesize one thing, but get another result, that's actually a good thing. It goes without saying that you should never falsify or make up data. Never make up an interview, observation, or the results of an experiment.

You can prevent the more subtle forms of falsification too. When entering data or copying a quote from a source, you should always double-check it. Simply taking a moment to stop and read carefully both your source and what you typed in can save you problems later. For qualitative or quantitative projects, create a system in which you number individual artifacts, whether observation notes or questionnaires, and then, in your data entry or composition, you can use that code so that you can go back and double check your information. For interviews, just as when paraphrasing a printed source, you must depict the meaning and context as accurately as possible. If you know the interview material word for word, then quote it. But remember that taking notes during an interview is difficult, so if you were not able to record the interview word for word, do not quote it; just paraphrase and indicate in your paper that this is your best approximation of what was said. If you want to double check the accuracy of how you depicted your interview in your notes or in your paper, send a draft for the interview participant to check and look over. This check might have the added benefit of getting even more information for your interview.

Cherry picking data, or only taking data that confirms an assumption or idea, is the most problematic. For example, taking a quote from an article out of the context of that article might seem like a convenient way to support a point, but if your audience is familiar with the original source, and you should always expect that they are, you have hurt your entire argument because of that breach of trust. The same goes for selectively reporting quantitative information. Although it might be tempting when a specific sample of your population seems to confirm something interesting, if it contradicts the rest of your data, you shouldn't just ignore the rest of that data. The benefit of research that you conduct yourself is that you can always conduct a future study in which you do change your research question and completely do your study again.

Discussion and Practice

1. In her *Los Angeles Times* review for the movie *Transformers 2: Revenge of the Fallen*, Betsy Sharkey (2009) wrote, "'Revenge' is in-your-face, ear-splitting and unrelenting. It's easy to walk away feeling like you've spent 2 1/2 hours in the mad, wild hydraulic embrace of a car compactor—exhilarating or excruciating, depending on your point of view." Would it be ethical for the producer, Dreamworks, to write on the DVD packaging, "*The Los Angeles Times* called the movie 'exhilarating.'"?

2. As part of a class, you have been reading studies on how females read for fun more than males, and, along with your professor and the class, you come up with a research question and hypothesis to test using a survey. Hypothesizing that female college students read more books for fun than do male college students, your survey asks for gender, GPA, the number of books read for fun last year, and a list of the last five books that the participant read. However, when you compile your data for the surveys you handed out, you find that males read more books for fun in your data. Do you change your data to support your hypothesis to make the professor happy? If not, what do you do?

What Is Mistreatment Of Research Participants?

Although there have been guidelines for treating medical patients since ancient times, and all doctors take the Hippocratic Oath to "do no harm," the role of ethics in scientific research gained greater attention after World War II. The Nuremburg Trials uncovered many violations of human rights through medical experiments conducted on prisoners in concentration camps. The researchers involved were prosecuted, and seven were executed. These shocking abuses led to the creation of the Nuremburg Code, which outlines ten principles for working with human research participant.

In the United States, the Tuskegee Syphilis Study provides another horrible example of unethical research. From 1932 to 1972, The U.S. Public Health Service conducted experiments with rural black men to track syphilis treatments and the progress of the disease if left untreated. Researchers used deception in explaining the nature of the study to participants and withheld treatment even after penicillin was proven effective for treating syphilis in the 1940s. The study continued until a press leak brought these unethical practices to the public's

attention in 1972. These events prompted the United States Department of Health, Education, and Welfare to write "Ethical Principles and Guidelines for the Protection of Human Subjects of Research," which is known as The Belmont Report. The department also created the Office for Human Research Protections (OHRP) federal regulation requiring Institutional Review Boards (IRB) to protect human research participants. We discuss IRB approval for research projects later in this chapter.

While physical experiments may seem most likely to abuse human participants, researchers must take care to avoid causing psychological harm as well. Just as with medical studies, researchers must get permission from research participants in behavioral research. Some cases raise ethical questions even when participants consent, however. For example, in a 1971 prison experiment at Stanford University, student research participants were assigned roles as either prisoners or guards in a mock prison. Participants quickly adopted these roles; although they were not allowed to physically harm the prisoners, some of the guards demonstrated sadistic behavior and many of the prisoners were emotionally traumatized. Two students had to be removed early, and the whole experiment was ended after six days instead of the planned two weeks because conditions deteriorated so quickly. Critics raised many questions about methods used in the study, suggesting that the lead researcher, Dr. Zimbardo, had been too directly involved in the experiment as the prison superintendent and that the research design fostered abusive behavior. The Stanford prison experiment would not be approved today, as current research guidelines set out in The Belmont report dictate that the potential benefits of a study must outweigh its potential risks, and "Brutal or inhumane treatment of human subjects is never morally justified."

While you aren't likely to be conducting medical experiments or psychological tests, you probably will use other human beings as research participants in qualitative and quantitative research, whether you conduct an interview, an observation, or a simple survey. Researching ethically with human participants means that you treat your research participants with respect and autonomy. Treating research participants with autonomy means that they have the right to understand the research you are asking them to participate in so that they can decide for themselves whether to participate in the research or not. They have to consent to participate in your research before you can conduct it. This also means that the research participants should be informed of any physical or emotional risks that may be associated with participating in your research. They have the right to end participation in your research at any time and for any reason. If they decide to stop participating in your research, they should face no harmful penalties or coercion to return to the study. Participants also have the right to full confidentiality if they want it.

How Do You Avoid Mistreating Research Participants?

Before you conduct any qualitative or quantitative research involving people, make sure you get permission from your school's institutional review board (IRB) first. The institutional review board is a federally governed board that is part of every college or university. It protects the rights of human research participants. The IRB will first review your study and then approve it,

approve it with revisions, or, perhaps, reject it outright. However, every school has slightly different rules for research conducted as part of a class, so check with your school's IRB first before conducting your research. You can usually find out how to contact your school's IRB online.

Because autonomy is so important for research participants, there are usually certain populations that need extra IRB scrutiny before research on them is conducted because they cannot legally give their consent to be researched. This includes research participants under the age of 18. Similarly, those who are in prison cannot legally give their consent. And those in mental institutions or nursing homes often do not have the mental or legal capacity to give their consent. While it is still possible to do research on these populations, the extra time it will probably take to get IRB approval makes doing this research almost impossible in the time-span of one short term.

Research participants have the right to minimal physical and emotional harm. While you probably will not inflict any physical harm on your research participants by conducting an interview, observation, or survey, it is important to avoid any emotional or social harm to your participants. This means protecting their reputations—especially if your research could potentially endanger your participants legally. For this reason, avoid asking questions related to any illegal activity such as drug use, underage drinking, etc. (For more specifics on how to conduct qualitative research ethically, refer to Chapter 7. For more specifics on how to conduct quantitative research ethically, refer to Chapter 8).

It naturally follows then that one other important part of research ethics is that research participants have the right to be represented fairly and as accurately as possible. Representing someone's intentions and motives accurately can be tricky, especially in qualitative research. To solve this dilemma, qualitative researchers often show a draft of their study to their research participants for approval. The research participants can then change anything about their portrayal. Sometimes qualitative researchers have even co-authored a study with their research participants to ensure that they are fairly and accurately represented—even to the point of sharing the credit for their work.

Discussion and Practice

1. Consider the following scenarios. What, if any, are the research ethics problems, and how would you correct them if you were on the research team, peer reviewer, or participant:
    a. Josh and Sarah are working on a collaborative research project. Josh comes to Sarah and says, "I've got this great idea for a project. Let's go to the library, and while you distract people, I will see if I can steal their bookbag or laptop or something, and then afterwards, we will hide and see how they react?" Sarah says she doesn't think this is a good idea. Josh tells her, "you're such a girl. I'm just going to do it and then you can write it up." Is there a research ethics problem here?

b. Kristen and Chelsea are roommates. It is week 5, and Chelsea has been studying for her midterms. Kristen has been out late all week, and comes home at about midnight on a Wednesday. She tells Chelsea, "Chelsea, I have this essay due and I'm supposed to interview a student, so can I interview you?" Chelsea says, "I'm sorry, but I really have to study for this test; can I do it tomorrow night?" Kristen tells her, "No, my paper is due tomorrow. If you don't do it, I will get an F. You gotta help me." Is there a research ethics problem here?

c. Judd and Seth are roommates, but not particularly friends—Judd is hard working and spends lots of time in the library and Seth likes to hang out with his friends. One of Seth's friends, Devin, enters their dorm room one day and says, "Hey Seth, do you want to fill out my survey for my writing class?" Is there a research ethics problem here?

d. Beth wants to study underage drinking on campus. Her teacher explains to her that this is an illegal activity so that she can only ask attitudes and beliefs and not whether people have engaged in the activity. She says she understands, but when she turns in her rough draft, her interview actually includes the question, "How often did you consume alcohol in high school?" She ends up basing her entire argument and analysis for her research paper around the data to this question. What is the research ethics problem here?

2. Research using your university's website or by asking your professor who should be contacted for information about IRB and researching human participants on your campus. Write that person a short email asking for guidelines and procedures for conducting in-class assignments. If working with another student or as a class, you might write one email to the person so as not to overwhelm them.

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Chapter 5

Getting Started: Designing Research Questions and Plans

In the 19th century, when trans-oceanic travel took weeks and certainly wasn't all that common in many parts of the world, there was some uncertainty as to how asparagus might be seen growing wild in many parts of the world but peas would not. Among the many questions that Charles Darwin asked in the twenty years of research that led to the publication of *The Origin of Species* was the very question, why do some plant species appear in some places but not others? This was a research question. Darwin, with the help of his butler Joseph Parslow, dropped fresh and dried seeds and vegetables in a salt water bath to see how long they would float. As you might have guessed by now, "an asparagus-plant with ripe berries floated for 23 days, when dried, it floated for 85 days, and the seeds afterwards germinated" (1859, p. 406). And what of the peas? "They resisted the salt water badly" (p. 405), lasting no more than a few days. His conclusion was that some seeds, through floods, currents, and in the belly of the occasional dead bird, could survive great distances whereas others could not.

Asking the right research question can be difficult, especially when so many of the questions we are confronted with as students have already been answered. For Darwin to ask some of his questions was difficult; after all, large swaths of the population were not asking these questions because they thought these questions were already answered. In your own education, you might have already conducted science labs testing the pH of bleach vs. lemon juice, or been asked to research the causes of the American Civil War, both research tasks that have had extensive answers already, some of which are fairly definitive. In this book, we want you to think about questions that don't have an answer, or at least, don't have a generally agreed upon answer. But don't let that stop you from challenging already established answers—new technologies, attitudes, theories, and perspectives can open up doors in the same way that they did for Darwin.

This chapter is meant to introduce you to the process of creating a research question and research plan. Generating a research question and plan is not a linear process. For our purposes, we have split the process into three stages, but they will often overlap and sometimes need to be revised as you move through the process. The first stage is deciding on a research topic. The second is attaching an appropriate question to that topic in order to formulate a research question. The third stage is devising a plan to answer that research question. We provide many more details for formulating specific research questions in chapters 6, 7 and 8.

What is a Research Question?

There are many motivations to conduct research, some personal, some for the betterment of humankind, some financial, some for promotion, and some for a grade; one thing is consistent, however—all research begins with a researcher asking a question. Plainly put, a research

question is the mystery that a researcher is trying to figure out. Sometimes a study will have multiple research questions, while in other studies, there is only one. This might sound overwhelming because, so often, the research questions in the classroom are the same for all students, but outside of the classroom in your public and professional lives, or if you turn to teaching or working in a university, you will need to ask new research questions constantly. What business management structure facilitates the best communication? What teaching activities are most effective? Which crystals are most reliable for non-volatile holographic storage? What are college students' attitudes toward diet and nutrition? What role does the church have in people's lives in contemporary society? In Shakespeare's *Romeo and Juliet* act 2, scene 2, what did Romeo mean when he wrote, "He jests at scars that never felt a wound"? How do Apple advertisements work rhetorically? Why do people want to go to college?

All successful research begins with a good research question, and a good research question begins with a well-defined research topic.

How Do You Define a Research Topic?

Most research questions seem to begin backwards. What we mean is that the second part of what is being researched, the "what" is often decided on before the "how." So even though most research questions begin with a question word—who, what, where, when, how, or why—they begin conceptually with the second part of the question—the thing being studied. Defining a research topic is a process, and the best research topics are interesting, focused, and substantial.

Interest
The most important advice for selecting a research topic is to pick something interesting to you. If you don't find something that interests you, you probably won't invest enough time and energy in it, and it won't be a good project. Say you are in a business class, and you have to research Internet marketing. If you aren't interested in what the best returns are for various Internet marketing plans, that's probably not a good research topic (and you probably shouldn't major in marketing). If, however, you are really interested in computer games, then think about how that might help you come up with a research topic for the Internet marketing assignment. How are games used for Internet marketing? What games are used? Seek ways that your interests align with your research task, and ask questions that interest you. Even for relatively limited writing assignments in required classes, there are often ways that you can tailor an assigned topic to make it more interesting or to make the project work for you as a way to develop skills that will help you in other writing situations.

Focus
Focusing a research topic is often difficult because we all worry about having enough to write about. However, narrow topics often lead to the best research questions. Researchers have written full reports on everything from the movement of a cockroach after one of its limbs was removed to the literacy practices of an entire community to the baryon composites of a galaxy. By the way, in those examples, the galaxy article was the shortest at three pages, and the

community literacy practices was the longest at over 400 pages. To focus, it's best to look at a research problem at three levels. The first level is that of **topic**, followed by an **issue** within that topic, followed by an **unanswered question about the issue**.

The **topic** is the general category of thing you are looking at. It's the landscape. Aristotle used the word *topoi* which literally means "place." The **issue** is the specific thing you are looking at in the landscape. The research question follows with what questions about the issue are unanswered or at least not answered definitively.

Let's look at it visually. Figure 5.1 is an image of the cliff dwellings at Mesa Verde, Colorado. These dwellings were constructed and inhabited between the 12th and 13th century AD. Looking at the image, the landscape or topic provides far more research questions than we can possibly cover here. For example, there is the geography, the flora and fauna, the dwellings themselves, and we could go on. It's a topic— it's the overall picture.

Let's decide we want to focus our attention just on the issue of Figure 5.2, the dwellings at this particular location (there are

Figure 5.1. Mesa Verde cliff dwellings in Colorado.

many dwellings at Mesa Verde, just as there are other Ancestral Puebloan dwellings throughout the southwest of the United States). We can ignore the rest of the landscape for now and focus on the issues associated with these dwellings. There are still many issues to pick from: building materials, architectural choices, cultural representations, even the impact of foot traffic as

Figure 5.2. Cliff Palace, part of the Mesa Verde National Park.

visitors tromp through the area admiring the ruins. Once again, we need to further focus our attention, and that is often where we begin thinking of what other research has told us. In this case, much of what we have just described from building materials to foot traffic has a good deal of research already, but there are still

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some unanswered questions about some of the architectural features.

Figure 5.3 is an image of a tower at the dwelling. It is the only tower at this particular dwelling, and other cliff dwellings also usually have only one tower. While the openings in the rest of the dwelling's structures are obvious doors and windows, the tower openings don't seem to have an obvious use. That becomes the question. What were the towers used for in the cliff dwellings of the Ancestral Puebloan peoples, and why did they have those openings?

Significance

The final quality of a good research question is its significance to others. We might be interested in why our roommates eat all of our food, or how a Blu-Ray disc can store so much more information than a DVD, but neither is significant. In the first case, nobody else cares, and in the second case, this is already a clearly established technological fact. When deciding if your research question is significant, ask the question first, why would anybody care about the answer? In the Mesa Verde example, many will care because it provides more details and context about a culture we know very little about. At a practical level, it helps the national park rangers answer the question about it when asked, and at a more speculative level, it could reveal something long forgotten about architectural design.

Figure 5.3. Tower architecture at Cliff Palace in Mesa Verde.

How Do You Formulate a Research Question?

You might have a question in mind, but often formulating it so that it fits the limits of the writing and research situation can be difficult. At the most basic level, you want to set up a question that interests you, that has a clear focus, and that should lead to a significant answer. That research topic is just part of the equation. The actual question part—who, what where, when, how or why—is just as important as the issue you want to look at. This textbook describes three research traditions that are commonly used in most academic, civic, and professional rhetorical situations: text-based, qualitative, and quantitative research. Formulating a research question within the constraints of a particular purpose often dictates whether it is a who, what, where, when, how or why question.

For most questions, you have to look at the recognized means of collecting data before you can ask the question. You need to know what is available to you. For example, it might be interesting for a medical researcher to learn about how certain treatments make a patient feel—a qualitative research question—but the researchers are foremost interested in if the drug works or not—a quantitative question. One of the things that we want to emphasize is that just because there are recognized means in certain situations doesn't mean they are the

only means. As you will see in chapters 6, 7 and 8, these traditions and methods can be used in many research situations.

Returning to your research question, you should begin assembling what methods of doing research are recognized and available to you. Imagine that your research topic equals X; here are some guidelines for thinking about what question to ask about it:

Is the what of X clearly and accurately reflected in the research question?

The most important thing about composing any research question is to make sure that you ask a clear research question that accurately reflects what you want to find out about your topic. A research question is like a thesis; your whole research project stems from the research question you ask. If your research question is unclear or too vague, you risk getting off-track with your research and doing research that doesn't clearly answer your research question or have anything to do with your topic.

Do a lot of living people know about X?
Do a lot of living people have an opinion about X?

If your research topic affects a lot of people, then you can conduct a survey (many questions) or poll (one question) then tabulate the responses. As you will see in chapters 7 and 8, questionnaires can be used in both qualitative or quantitative research. For example, you could ask the research question, "How many people know what their caloric intake should be?" This research question could be revised into a qualitative research question: "Why do people feel the way they do about their calorie intake?"

Are specialized equipment needed or useful for measuring X?

If you need specialized equipment to measure X, then the measurement will often be quantifiable, so you will ask quantitative research questions such as "how many" or "when." In fact, we can even look at the previous example about calories and ask, "How many calories are in this food?" We could also measure how people feel quantitatively by measuring pulse, breathing, and perspiration when confronted with a written record of the calories in their favorite foods; such a research question wouldn't be "why" but instead be "How do people respond physically when they are shown how many calories they consume in their favorite foods?"

Do only a few people know about X?

If only a few people know about X, then you want to collect as much data from those few people as possible—thus, you want to ask qualitative questions using "how, " "what" or "why." Because there are so few who can offer you the data you need, you need to ask as much as possible. Research questions such as "What was it like on the beaches of Normandy?" or "How did you learn to write?" require the in-depth response of individuals and not a large collection of responses.

Can I easily observe X in its natural state?

If you can observe X in a natural setting, then you want to write a qualitative research question, using "why" or "how". The purpose is to collect as much data in that setting as possible.

Questions such as "How do women behave differently than men at the grocery store?" or "Why do people hang out at the local coffee shop?" or "How do chimpanzees react to heavy metal music?" can be answered by observations. Now, you can do quantitative observations as well, but it will lead to quantifiable research questions. The previous questions become, "Do more men than women ask for help in a grocery store?" "Do teens spend more time at coffee shops than middle-aged people?" and "How many beats-per-minute in music does it take to get a reaction in chimpanzees?"

Is there a lot of previous research about X?

In some ways, all research begins as we read what past studies have and haven't said about our research topic. Research questions that lead to meta-synthesis, literature reviews, and analyses (see chapter 2) usually are the most basic—they ask, "What is known about X?" Sometimes, you can use quantitative and qualitative data that has already been published with another research question as a way to ask a new research question. If there isn't previous research about X, then you can look for previous research on topics or issues around that topic and attempt to create a larger picture for X by comparing research that is related to X in some way. However, if there is a lot that has been already researched about X, you might want to consider asking a new research question. The point of conducting research is discovering new knowledge, so avoid asking research questions that you and everyone else already knows the answer to. An obvious research question would be a quantitative question such as "How many students want school to be over by the end of spring term?" or a qualitative question such as "Why do students want school to be over at the end of spring term?" Obviously, in the quantitative research question, most if not all students will want school to be over and, in the qualitative research question, the answers are usually obvious: students are tired after working hard all school year, they have exciting summer plans, the weather has become warmer after months of being cold and dreary, they can't wait to spend time with their friends who will also be out of school, etc.

Am I assuming too much about X before I conduct my research?

Good research is as unbiased as possible because the whole purpose of research is to discover something new we didn't know before we started. Of course, we all have biases and preconceptions about the world which are often unconscious, so remaining unbiased while conducting research can be difficult. To help you remain as unbiased as possible, make sure to phrase your research question so that it is neutral and as unbiased as you can make it. For example, avoid asking a research question such as "Why are all teenagers irresponsible?" This question generalizes all teenagers as irresponsible, which of course is not true. A better question would be "Why do college students procrastinate with writing assignments?" This not only narrows the question down by defining who specifically is engaging in this behavior—college students—but it also defines the specific behavior—procrastinating on writing assignments. It also doesn't over generalize; it is focused on college students and writing assignment behaviors, so it remains fairly neutral.

Are there written or photographic records around the time/place of X?
If published research isn't available for a specific topic, then you can attempt to study it through other means such as photographs, letters, movies, diaries, novels, toys, technology, clothing, art, and even an absence or abundance of any of these things. In other words, the context of everything surrounding the research topic can provide an outline of that topic. Of course, you can also examine those objects as a way to do text-based or archival research, looking at them in a particular way (see chapter 6).

Once you have established what you are researching and how you intend to research it, you can then formulate a research question. It should avoid making predictions, especially if your approach is qualitative, and you should keep it simple—if you have multiple research questions, then ask them separately. For more about formulating qualitative research questions, see chapter 7; for more about formulating quantitative research questions, see chapter 8.

Discussion and Practice

1. Begin by looking at the following topics:

Blogs	Business ethics	Civic responsibility
College students	Fast food	Football
iPods	News reporting	Political activism
Suburbs	Television	Videogames

    a. List at least three "issues" within one of the topics that you would be able to research. Think about the different research traditions as you consider naming these issues.
    b. Select one of the issues to write a research question about. As you formulate your question, think about alternatives to the question words you might use— who, what, where, when, how, why, how many. Also, remember to consider whether it is interesting and significant.

How Do You Make a Research Plan?

Once you have a research question, you need to begin making a plan for how you will answer it. This plan is not your method (we will discuss specific ways to do research in chapters 6, 7 and 8); the plan is the practical step-by-step instructions to yourself for conducting and writing about your research. In some cases, you might even have to provide this plan for projects that require teacher approval or involve applying for grants or other types of funding. Nevertheless, it is helpful to write out your research plan, if nothing else than to keep you on track. More practically, a written plan can become the first draft of your research project as you develop your steps. The research plan consists of a clear research question and descriptions of how you will carry out your research, including preliminary library research and how you will analyze your results. Lastly, the research plan consists of a timeline for when you will do preliminary research, develop a method, carry out that method, analyze the data, write the project first draft, and review/edit the project before submitting.

Developing a Timeline

Begin by creating a timeline that lists major steps of the project and when they should get done. Successful projects (and students) have a plan with time-on-task reminders along the way. Looking at the following steps here, from surveying your topic to reviewing your project, write a paragraph about each and assign yourself a due date. We want to stress that different research traditions and rhetorical situations will require different amounts of time on each of the following steps. Sometimes you won't have the time to devote as much as you want on certain stages. The more research you do, the better you will be at gauging how long each stage should take. As you develop a timeline, the best advice we can offer is to develop them in reverse, beginning with when something is due and ending with the day you write your Research Plan.

Surveying your topic and preliminary research

You want to begin by looking at your research topic and issue. If other research has been done on your topic, what have they failed to find or account for? This is a good moment to begin writing your introduction. Your introduction draft can come when you have determined your research question, why it is important, and why other researchers haven't answered the research question. However, you might find that little has been written about your topic, and you will need to spend more time doing library and internet research. This process can continue throughout the research process, so while you might begin here, you might also end up back here as well.

Developing your method

How will you answer your research question? You want to outline the process of collecting your data. If doing text-based research, you want to begin by setting aside time in your schedule to read and think about a topic. Reading articles at the last minute will often not give you time to process connections. Set up a schedule where you spend a number of hours each week just doing research. If conducting a qualitative or quantitative study, begin scheduling when and how you will collect your data. Finally, develop how you will analyze your data. Don't wait until after you have collected your data to come up with the way you will interpret it—figuring out how you will work with your data beforehand can help you ask the right interview questions, observe the best locations, or compose the most precise survey questions.

Analyzing your data

In qualitative studies, this involves reviewing your observations, reviewing responses to interview questions, categorizing them, and analyzing the observations/interviews by looking for patterns. In quantitative studies, this involves statistical or mathematical modeling against measures of significance. We discuss these things in more depth in their respective chapters, but we wanted to remind you to leave time to do the analysis. *Whether text-based, quantitative, or qualitative research, you will spend more time analyzing data than in the other stages*. Make sure to leave plenty of time.

Writing your first draft

If you have taken notes along the way and drafted each step, the first complete draft of your project should be a matter of cutting and pasting some parts, and thinking through other parts. It is better to give yourself a couple of days to work on the draft rather than try and do it all in one sitting. Writing is difficult; the secret to a stress free writing experience is to plan a few hours each night rather than trying to cram all of those hours into one night. That said, we recognize that personality differences and the constraints of everyday life introduce a lot of variety into this equation.

Reviewing your project

Most researchers review their projects up until the final due date, and even then, they might go back and wish they had revised the project some more. Give yourself a *minimum* of 24 hours after completing your final draft in which to review, revise, and edit your document one last time. If possible, seek feedback from your professor, peers, or a consultant at your campus writing center.

Discussion and Practice

Imagine you have exactly two weeks to conduct a study of one of the following research topics. On your own or working with one other classmate, develop a brief timeline for one of the following research projects:

 a. Music preferences of college students at your school
 b. Food buying habits at a local fast food restaurant
 c. The shift from using midwives to surgeons as means of delivering babies in the 19th century
 d. The rhetoric of advertising in print-based sports publications
 e. Gender differences in clothing shopping

Chapter 6
Synthesizing and Applying: Text-based Research

In the 2012, Walt Disney released *Wreck-It Ralph*, an animated story of a video game "bad guy" who is tired of being the villain in his 30-year-old game. He decides to leave his game to earn a medal, and thus, be a hero. He eventually ends up in a more modern game called *Sugar Rush*. The premise of the story borrows heavily from movies like *Tron* before it, in which the insides of a computer game are inhabited with sentient beings, but beyond that, much of the movie's humor relies on cultural reference. In other words, to get the jokes in the movie, you have to be aware of other movies, books, and cultural artifacts that they are referring to. For example, the police in the movie are two donuts named Duncan and Winchell, a reference to the chains, Duncan Donuts and Winchell's Donuts. However, Winchell's donuts are mostly located in the western United States, so somebody from the east coast might not fully get that joke. Furthermore, the concept that the two characters are donuts is a reference to the idea that police hang out at donut shops, the origins of which could be connected to the fact that a few decades ago, the only places open late at night or in the early morning were donut shops. This cultural reference has sometimes been used to cast negative light on police officers, as the long running joke of Chief Wiggins in *The Simpsons* always eating a donut, and a simple Google search of "police and donuts memes" reveals. The police donuts in *Wreck-It Ralph* are further shown to be quick to pull out their batons to beat up Ralph even though he was trapped in a cupcake, as well as portrayed as ineffectual at their jobs generally throughout. When we look at cultural artifacts like movies, novels, paintings, or video games, we see layers of meaning that, if we have the references, we can readily interpret, whether that interpretation is humor or some other insight into the human condition. But sometimes, when we don't have all the information, we need to seek out other sources to fully understand, interpret, or make connections with what a text means.

What is Text-Based Research?

As we discussed in Chapter 3, almost every type of research project involves some textual research. Scholars in all fields and research traditions study and cite previously published research in order to provide background, define terms and methods, or locate their research within a larger disciplinary conversation. In this chapter, however, we will focus on the kinds of research that emphasize the study of texts themselves, whether the goal is to gain a better understanding of the texts studied or the culture that produced them. We use the term text-based research to highlight this distinction and separate this type of interpretive research from qualitative and quantitative studies that use published texts differently.

You are probably familiar with some kinds of text-based research from your previous English classes, and the interpretive skills you gained analyzing poetry or writing essays about literature will continue to be useful. Text-based research goes far beyond the English classroom, however, and we hope to expand your notion of what counts as a text, what disciplines study texts, and what purposes textual analysis and writing about texts can serve in academic, professional, and civic contexts.

What is a text?

This seems like a simple question, and a lot of people might give an answer like "words on a page." Others will immediately think of novels, short stories, or poems. From another perspective, the entire world is a text. For our purposes, however, let's define text as an artifact of communication. Artifact, which the OED defines as "Anything made by human art and workmanship," helps us limit our scope to texts/objects that were made with some intention, and "communication," further limits our definition to those artifacts created with the goal of "imparting, conveying, or exchange of ideas, knowledge, information, etc. (whether by speech, writing, or signs)." So, what are some of these artifacts of communication?

Books	Web Sites	Movies	Cereal Boxes	Bumper Stickers
Magazines	Blogs	TV Shows	Graffiti	T-Shirts
Newspapers	Posters	Viral Videos	Songs	Billboards
Pamphlets	Paintings	Commercials	Poems	Photographs

The list goes on. The important thing to remember is that conducting text-based research doesn't mean you will have to spend hours in the library stacks (though that is one option that can be more fun than you'd think).

Discussion and Practice

1. Survey the texts in your life. We all surround ourselves with texts—to-do lists, video games, novels, textbooks, television shows. What texts are you most familiar with? What texts do you encounter the most?
    a. Keep a text/media log for several days and try to record as many of the texts you see and read as possible.
    b. In small groups, review and compare your logs. What do they tell you about your textual experiences? Which texts are most important to you? Why? How do you gain information or entertainment from different kinds of texts?

Where Does Text-based Research Come From?

As listed above, text-based researchers examine a wide variety of publications and artifacts, and they almost always combine primary and secondary texts. These texts come in many forms and both types of texts can play different roles for an author. For

example, a literary critic studying a novel may read the author's letters to see how the writer's life at the time influenced the story. On the other hand, a scholar may focus on an author's correspondence and use other archival materials to interpret the letters. In either case, **the original documents**— whether they are poems, letters, magazine ads, films, or clerical registers—**are primary texts or sources** that can be analyzed, synthesized, and interpreted. For example, in both the text-based article examples later in this chapter, the primary texts are horror movies.

Figure 1. Tu Delft University, Netherlands

As discussed in Chapter 3, **secondary sources** include articles, books, and documentaries in which other scholars and critics have presented their own analyses, syntheses, or interpretations. Secondary sources can help a writer support his or her analysis or interpretation of the primary text. Textual researchers may apply previous scholars' theories to a new text or they may contradict a previous critic's reading of a primary text. Scholars frequently synthesize multiple perspectives on a work or issue and place their own argument about a text within this larger conversation of scholars. Perspectives differ on when in the research process a scholar should turn to secondary sources. Some suggest that you should conduct a close reading of your primary text(s) to generate your own questions and possible answers before you read others' interpretations, but in other cases it may make sense to let a particular critical approach based on secondary sources guide your reading from the start.

Whichever approach you choose, your goal in studying primary and secondary texts is to select evidence to support or contradict a particular interpretation of a text or culture. How you include this evidence in your own writing will depend on the type of text and your purpose, but you will likely use the skills of summary, paraphrase, and quotation discussed in Chapter 3. When analyzing visual and aural texts, you will also need to provide detailed descriptions. For example, a song's lyrics and music may pose interesting contradictions. The music from Nine Inch Nails' "We're in this Together Now" is heavy and dark—mechanical and sparse during the verses, a brutal wall of noise on the chorus—but the lyrics are a celebration of solidarity and endurance. Any study of Trent Reznor's work needs to account for the content of the lyrics and the way these lyrics are presented musically to the audience and thus would benefit from a technical and/or evocative description of the music and direct quotations from the lyrics. And, of course, to better understand a song or album, you might look to the rest of Reznor's

discography for patterns in his music and read what other critics have said about the music, the way it is created and produced, and its cultural significance.

Who Does Text-Based Research?

Researchers from diverse fields, including English studies, rhetoric, history, communications, social sciences, cultural studies, marketing, political science, and film studies rely on text-based research methods. People in different academic disciplines and professions study various texts in different ways and for different purposes. Consider the following research situations:

Legal studies and **linguistics** are two fields that rely heavily on textual interpretation, and occasionally the two overlap. In 2008, the United States Supreme Court deliberated on the case of *District of Columbia v. Heller,* which questioned the constitutionality of Washington DC's Firearms Control Regulations Act of 1975. This was the first time the Supreme Court had considered if the right to own a handgun is an individual right guaranteed by the Second Amendment, and many individuals and organizations filed *amicus*

IN THE
Supreme Court of the United States

No. 07-290

DISTRICT OF COLUMBIA, *et al.,*
Petitioners,

v.

DICK ANTHONY HELLER,
Respondent.

On Writ of Certiorari to the
United States Court of Appeals
for the District of Columbia Circuit

BRIEF FOR PROFESSORS OF LINGUISTICS
AND ENGLISH DENNIS E. BARON, Ph.D.,
RICHARD W. BAILEY, Ph.D. AND
JEFFREY P. KAPLAN, Ph.D.
IN SUPPORT OF PETITIONERS

STATEMENT OF INTEREST

With the written consent of the parties, Dennis E. Baron, Ph.D., Richard W. Bailey, Ph.D., and Jeffrey P. Kaplan, Ph.D., submit this brief as *amici curiae* pursuant to Rule 37 of the Rules of the Supreme Court of the United States.[1]

[1] Both parties have consented to the filing of *amicus* briefs in support of a party in this case and copies of their letters have been filed with this Court. Counsel of record for all parties received timely notice of the intention of *amici curiae* to file this

Figure 2. *Amicus curiae* brief filed for District of Columbia v. Heller, one of over 70 such briefs filed for this case.

curiae (friend of the court) briefs urging the Court to uphold or overturn the appeals court ruling to overturn the District of Columbia's handgun ban. Because so much of this case hinged on the wording of the Second Amendment, several professors of Linguistics and English—Dennis E. Baron, Richard W. Bailey, and Jeffrey P. Kaplan (2008) —filed a brief arguing that the Supreme Court should reverse the appeals court decision because the original text does not support handgun ownership as an individual right, but only as a collective right for maintaining "a well regulated militia." This argument was based on a thorough analysis of the constitutional language that considered the historical, linguistic, and grammatical contexts of its composition. To understand this context, the authors studied a variety of primary texts, such as letters, grammar guides from the time, and other writings by those who drafted the constitution—as well secondary texts about the Second Amendment. In this situation, the researchers used many texts to provide a clear interpretation of a single text that has great significance for current policy deliberations.

Figure 3. Grace Coolidge, wife of U.S. President Calvin Coolidge, with her pet raccoon.

Researchers in **history** also often use a variety of primary and secondary texts to gain a better understanding of specific periods or cultures, though they often place a higher value on original archival documents. Historian Ingrid Tague (2015) became interested in how the status of pets and pet-keeping in the 18th century reflected changing attitudes about nature and humanity. Tague pursued this idea by studying a wide range of 18th century texts, including letters, newspaper ads and articles, essays in magazines, poetry, pamphlets, natural histories, children's literature, and portraiture. To find these texts and artifacts, she searched electronic collections, such as *Eighteenth Century Collections Online,* and physical ones, like the British Library's Rare Books collection. She also made use of images from the National Portrait Gallery and local library holdings in print and microfilm. By analyzing a variety of media pertaining to pets in the 18th century, Tague discovered certain patterns of representation and could interpret their cultural significance. For example, 18th century discussions of pet keeping debated whether it is ever acceptable to dominate over another sentient being—and thus whether slavery is acceptable. The rise of pet keeping as a socially acceptable behavior also shows a new understanding of nature as something not merely to be feared or dominated but as benevolent—humans began to think that a close emotional connection to the natural world was a sign of virtue. Historical studies like these paint a clearer picture of the past and can help us gain a greater understanding of our own cultural practices and attitudes.

A variety of disciplines, such as **Marketing, Political Science,** and **Semiotics,** study modern texts to explain contemporary cultural practices and attitudes. Semiotics is the study of signs, symbols systems, and how we use them to make meaning. Semiotics is commonly associated with literary criticism and cultural studies, but it has become a common tool for a variety of fields. Stephen H. Linder (2010), for example, is a political scientist and public health and policy specialist who drew on research in marketing and semiotics for a textual study of advertisements about global warming. Linder collected over 30 print, TV, and mixed media advertisements from several countries by searching image and advertising databases and gathering current examples on his own. He then applied specific theories of semiotics to interpret these texts. Linder includes a number of visuals and rich descriptions to support his analysis, which demonstrates patterns in how not-for-profit social marketing (public service announcements) emphasizes risk claims and personal responsibility for combating global warming. He then traces how

some for-profit advertisers co-opt the content and cultural significance of these social marketing campaigns to link their products to positive actions (e.g. "green" products) while others invert or parody risk or responsibility (e.g. a Foster's ad that urges viewers to forget about global warming and enjoy "global cooling" by drinking beer). Linder is concerned that such advertisements might limit the effectiveness of public service campaigns and suggests further research on this pattern of appropriation and its effects.

What are some Advantages and Disadvantages of Text-Based Research?

As the examples above suggest, text-based research can help us understand the past, make us more informed readers of the present, and suggest policies and action plans for the future. Text-based research is better suited to some kinds of inquiry than others, however, and may need to be combined with work in other research traditions to fully answer some research questions.

Naturally, a great deal of text-based research focuses on literary texts. Many scholars are devoted to studying the works of different times, places, and movements. Matthew Arnold (1994) defined culture as "a pursuit of our total perfection by means of getting to know, on all the matters which most concern us, the best which has been thought and said in the world," and many literary scholars would argue that novels, short stories, poems, plays, and other works of fiction and non-fiction represent a culture's wisdom and values.

In addition to preserving a culture's literary heritage, text-based research can illuminate concerns and trends in contemporary societies. The fields of cultural studies and popular culture studies have grown considerably in the last several decades as scholars have adopted methods traditionally applied to high culture in the study of more commonplace popular culture texts. Some literary research questions are primarily aesthetic and focus on the technique and style of particular works or genres, while others examine texts for representations of larger philosophical issues. While we can gain many insights from text-based studies, work in this tradition is rarely definitive. Aesthetic judgments are subjective. An author's intention is difficult, if not impossible, to ascertain. The fact that a single sonnet can generate thousands of pages of scholarship makes text-based research thrilling for some and frustrating for others.

Text-based research is also particularly well suited to research on historical topics. A great deal of what we know about ancient cultures is based on texts that have survived. Thus, we know quite a bit about ancient Greek and Roman societies based on their writings, which have helped shape our current ideas about philosophy, rhetoric, and politics. On the other hand, only a limited number of texts survive from some periods, and those cannot always be trusted. For example, a lot of information about Socrates has been derived from the writings of Plato, rather than Socrates himself, and some scholars argue that Plato misrepresented Socrates for his own rhetorical aims. For more

recent historical periods and events, we have a more complete textual record. In cases where there are no survivors to speak for themselves, researchers often support evidence from one text by looking to other texts and artifacts from the period. For more recent events, researchers might corroborate textual evidence by interviewing those involved.

Because much text-based research involves the interpretation of texts, it usually cannot provide the types of more verifiable data valued by certain fields. It can, however, provide avenues to create new research questions or establish where connections between past and present research might exist. Consider the practical design choice of a bridge. Some people might want to make a statement with a bridge design, contrasting or emulating other bridge designs as a way to identify with another place or ideal; however, the bridge's design also has to be driven by quantitative research determining its integrity to support traffic, and it should be of practical use to its community or culture, something qualitative research might respond to. The process consists of beginning with different texts to influence the bridge design, but in using quantitative and qualitative measures to complete the design. Bridge design, then, cannot wholly be text-based, but it can be influenced by it.

Text interpretation is a rich tradition that relies on many different perspectives, so conclusive arguments are not really possible. Whether the television shows *American Idol* or *The Walking Dead* or book *Twilight* are blights or boons to our existence, text-based research can't tell us—but the conversations and interpretations born out of their existence enriches our understanding of ourselves and our culture. In other words, text-based research is not designed to disprove or prove a hypothesis, or seek a generalizable trend, but it can perpetuate, unify, and complicate the texts that it uses, and by extension, the cultures that produced those texts.

Discussion and Practice

1. Besides those issues we have already discussed, what are some further disadvantages of text-based research? What are some further advantages?
2. Alone or in small groups, brainstorm a list of research questions that might be answered using text-based research. One approach might be to list the kinds of texts you would like to study, followed by what kinds of information you might be able to gather from them. Another approach would be to brainstorm a list of interesting research questions, then discuss if text-based research could answer the question fully or partially.

How Do Researchers Study Texts?

Text-based research involves much more than finding texts and summarizing or describing them, though these are important first steps. The researcher has to do something with the texts, to make meaning from them. In order to gain a better

understanding of a text or group of texts, the researcher must move beyond summary and into **analysis, synthesis,** and **interpretation**.

What is Analysis?

Analysis involves breaking a text or context down to gain a better understanding of how its components fit together. The goal of analysis is to break a text down into its constituent parts in order to figure out what a text means or how it works. To break apart a text, researchers apply analytical categories that they or others have generated. For example, to conduct a rhetorical analysis of a speech, a scholar will systematically investigate how specific parts of the text make logical, ethical, and emotional appeals. In a previous class, you may have been asked to analyze a short story by considering plot, characters, the point of view of the narrator, and literary techniques like metaphor or irony. Researchers use different systems to analyze a variety of data, as we will discuss in Chapters 7 and 8, but our focus here is on the analysis of previously published texts.

When you are assigned to write an essay about one specific text, analysis will usually be the appropriate place to start. Your professor may suggest analytical categories, or you might select the most significant features of the text to discuss. In either case, you will need to read the text once to make sure you understand its general meaning and then re-read the text more systematically to find passages that illustrate how the text functions based on your analytical categories. Analysis often precedes interpretation, which we discuss later in this chapter. Whether it is a film critic analyzing a movie's cinematography, lighting, and editing before interpreting what effects these strategies have or what effect the director may have intended, or a literary scholar looking at how a scene or character is described, analysis often leads the researcher to look at a pattern and ask, why. For example, an analysis of Kate Chopin's novella *The Awakening* reveals several recurrent objects and images. You must first identify these patterns through analysis before you can develop an interpretation. For example, critics often note the levels of meaning associated with Edna's wedding ring and how she cannot break free from the culture and bonds it represents, even when she throws it off and stomps on it. Another example is the television show, *The Office*. Even though the show is shot in a documentary style, an analysis reveals that no two characters on the show are similar, and in many cases, the characters are almost unrealistically different. One analysis might be that these extreme differences reveal certain personality archetypes in a typical working environment. In both examples, the analysis, or breaking apart, had to come first, to lead the researcher to ask, why? Why do these objects keep appearing in *The Awakening*? Why are the characters in *The Office* such extremes?

Scholars follow a similar analytic process when examining a group of related texts. As the Vampire Weekend example above illustrates, we often gain a better understanding of one text by reading it alongside other texts by the same writer or artist. Thus, after reading many poems by William Blake, a literary scholar might notice recurring use of

words and images associated with light and dark. She could then read through a collection of poems with this analytical frame in mind to locate appropriate light/dark passages and how they work within the poems before developing an interpretation of how Blake uses light and darkness to represent the nature of humanity and the divine. Researchers in a variety of fields take similar approaches to works grouped by artist, genre, time period, medium, or other logical division in order to develop and apply appropriate analytical frames that will provide a clearer understanding of the text and support interpretation.

In moving from analysis to interpretation, you must demonstrate how the text meets or fails to meet the criteria you have established by using specific evidence from the text. The common pattern for developing an analysis is to make a claim, present one or more pieces of evidence through quotation, paraphrase, or summary, and then explain clearly how the evidence supports your claim and extends our understanding of the text. Don't rely on your readers to make these connections themselves.

Discussion and Practice

Advertisements are rich sources for textual analysis. Compare the two vacuum cleaner ads (Figures 4 and 5). Begin by looking at the graphics. What graphics are used in the two advertisements? How are the vacuum cleaners represented? Next, look at the text. How is the text formatted? How is color used?

Figure 4. 1948 Hoover advertisement printed in *LIFE* Magazine.

Figure 5. 2006 Dyson advertisement printed in *Wired* Magazine.

Chapter Project: Step 1

In the chapters devoted to each research tradition, we present a series of activities that build toward a larger paper project. These process steps are labeled in several Discussion and Practice sections throughout the chapter.

On your own, find several print advertisements—either multiple ads for the same product or multiple ads from the same publication that are directed to the same audience. Most campus and public libraries have a wide selection of current periodicals you can search; just make color copies of several related ads. You can also find advertisements by searching Google Images. Analyze how the ads use graphics, color, and text to capture the audience's attention and present the product. Compare your ads and analyses in pairs or small groups.

What is Synthesis?

Synthesis moves in a different direction than analysis by bringing elements together to make meaning. As such, synthesis is an important thinking skill that we employ every day as we connect new information to old or recognize similarities between things we learn in different contexts. This notion of bringing elements together is represented in interdisciplinary uses of the term: scientists synthesize elements to create new compounds; musicians synthesize multiple instruments or tones to make new sounds; literary scholars define literary synthesis as the act of bringing multiple characters and plot points together and tying up loose ends at the end of a novel or play.

Other important uses of synthesis range from philosophy to psychology. For example, in philosophy, the dialectic is the process of inquiry in which two differing arguments are given, with both participants looking to find error in the assumptions of the other, or addressing alternatives to synthesize a resolution. In psychology, conflict resolution usually arises out of finding common ground, in which different perspectives come together to synthesize a new solution to a problem.

In textual research, synthesis can involve bringing multiple contexts or theories together in order to examine one text or examining multiple texts from an author, time period, or region together to find patterns or anomalies. As discussed in Chapter 3, which also provides a more detailed discussion of the synthesis writing process, a synthesis can be explanatory or argumentative. In text-based research, synthesis provides a means for exploring textual content and is a key step in developing a particular theory or interpretation (we'll discuss that stage below). Consider the role of synthesis in the following research scenarios.

Cheri is studying Twain's *Adventures of Huckleberry Finn* for one of her classes, and one topic that came up in discussion was the racist language in the book. She decides to write a paper about whether the book is racist. A likely process would be for her to read multiple texts that offer conflicting interpretations, synthesizing the main points in favor

of labeling the text racist and the main points in arguments that the text isn't racist. In the process of comparing the two sides in the debate, Cheri might find one position more persuasive than the other. If she decides the novel is racist, most of her essay will focus on the synthesis of sources that support her argument, but she will still want to include some synthesis of points on the other side to show that she has considered counterarguments. Another possible outcome is that Cheri isn't completely convinced by either side, but sees valid points for each position. In that case, she might take a more dialectical approach, fairly presenting both sides and then formulating her own claims about the book by synthesizing points from both sides. So, for example, she might conclude that while some of the language and representations in *Huckleberry Finn* are racist, the relationships and actions of the main characters challenge racist stereotypes. Recognize that synthesis is not indecision but the creation of a new position based on the available texts. So far, Cheri's analysis of this debate has been based on secondary sources—articles written by other literary scholars. To write her own text-based synthesis, Cheri would need to read the book for passages that she would argue are racist or that challenge racism. She could then synthesize her own interpretation with those she found in her research.

In "Dead Man Still Walking: Explaining the Zombie Renaissance," the scholarly example later in this chapter, Kyle Bishop (2009) relies on synthesis in a couple of ways. His ability to discuss "the fundamental genre conventions of zombie cinema" relies on the fact that previous film critics have analyzed numerous films and synthesized these analyses to argue that a specific genre of zombie films exists, and that they share multiple characteristics beyond including zombies. Bishop can then apply the older zombie film framework to the recent wave of zombie films; he explains how they follow or diverge from genre conventions by citing specific examples from two or more films to illustrate each point, which is another act of synthesis. Even in tracing the historical and recent popularity of zombie cinema, Bishop synthesizes release dates, business data from movie studios, and comments from other film scholars. Here, too, synthesis is part of a larger process that includes analysis and works toward interpretation. Bishop not only analyses specific films within a larger synthesis of current zombie cinema features,but he does so to support an interpretation of how these films reflect and shape current cultural concerns.

Discussion and Practice

Return to the vacuum cleaner advertisements (figures 4 and 5). There are many arguments that can be made about how and why certain features of the advertisements work. Imagine, then, that you were asked to create an advertisement that combined elements of both for a new ad campaign to run in the magazine *Popular Science*. What might such an ad look like?

Chapter Project: Step 2

Create a synthesis advertisement based on features of the ads you found and analyzed for Step 1. Choose an appropriate publication for the ad that will help you think about how to appeal to a specific audience.

a. Create a list of similar features in the ads.
b. Create a list of features that are different in the two ads.
c. Cross off elements that might not work for your chosen audience; for example, some graphics or appeals that are appropriate for a men's magazine like *GQ* might not translate to *Southern Homes and Gardens.*
d. Synthesize elements from both campaigns, as well as some new ideas that might have arisen during your analysis. Describe the new advertisement and the choices you made. You Might want make a graphic representation using drawings or desktop publishing software.

What is Interpretation?

Analysis and synthesis are essential skills in researching a text, but they are part of a larger goal—that of interpretation. Interpretation involves making intellectual connections between the parts of a text or texts within some larger context. For example, let's take Leonardo da Vinci's famous painting, Mona Lisa (see figure 6). We can analyze it in a hundred different ways—we might look at the clothing as representative (or not) of the period, or if or why she is wearing a veil, speculate at the source of the mythological background, take apart the brush strokes, or sample the dyes used in the paints, or maybe the technique of shadow and perspective. As you can see, the analysis can go on forever, and more importantly, not really accomplish anything. We all can analyze a thing into a million pieces, but rampant analysis does not an argument make.

We can also synthesize aspects of da Vinci's masterpiece. For example, we can compare everything we analyzed earlier to other Italian renaissance paintings looking for similarities or differences so as to make a larger argument about clothing, backgrounds, brush strokes, paint dyes, and technique. Such synthesis is the hallmark of good academic research because it provides a type of

Figure 6. Mona Lisa by Leonardo da Vinci, c. early 16th century.

corroborating evidence for making textual arguments. However, we cannot try to do everything since such a synthesis would never end, as we can never know when difference or similarities ever end.

Figure 7. Marcel Duchamp's L.H.O.O.Q.

We can also synthesize the image itself to create new arguments. For example, the famous painter Marcel Duchamp added a goatee and mustache to the painting in 1919, and gave a vague but nonetheless offensive caption under the image (see figure 7). The artist Andy Warhol colorized da Vinci's Mona Lisa, turning her into popular art. Given the prevalence of digital photo editing and the storage and distribution possibilities of the Internet, many since have turned the Mona Lisa into everything from Pokemon's Pikachu to LEGO.

The goal of interpretation is to use analysis and synthesis to explain the meaning or significance of the text, object, or trend being interpreted. Some scholars refer to this step as making an "interpretive leap." While some people are suspicious of theory and think of textual studies as reading too much into a text, it is more accurate to define interpretation as *reading out from* the text as well as applying outside perspectives to the text. In that case, interpreting a text is a common, everyday occurrence. Interpretation arises from an understanding that there are multiple ways to read a text. All interpretations are not created equal, however. In order for an interpretation to be valid, it must be supported by evidence in the text.

The evidence scholars emphasize is shaped in part by their **interpretive lens**—their way of looking at texts and contexts that is informed by a specific theory or school of thought. To better understand this idea of the interpretive lens, imagine that you are out with some friends, chatting with them as you wait to cross the street at a red light. One of your friends suddenly interrupts the conversation by blurting out, "Back up!" You hear the screech of tires on the pavement and the crunch of metal on metal. Getting over your surprise, you realize a blue sedan has rear-ended a black truck that was waiting at the light. Your experience of this crash was very different than that of the people in either the car or the truck. It was also different than your friend that told you

to get out of the way. It can be said that you each have a different perspective on the collision.

The more topics you study in school, the more books you read, the more television and movies you watch, and the more cultures you come into contact with, the more your ways of seeing and interpreting texts will increase. In other words, the more you immerse yourself in culture, the more interpretive lenses you will have to work with. While there are many ways to view texts, it is useful to divide these interpretive approaches into three over-arching categories based on the researcher's motivation.

> **Rhetorical** approaches are concerned primarily with how texts work and tend to emphasize specific textual features (organization, style, diction, allusions, literary devices, etc.), how they affect the meaning of texts, and how they affect audiences. Rhetorical analysis based on the appeals discussed in Chapter 2 fits into this category, as do some types of literary criticism.

> **Ideological** approaches are concerned more with how texts shape and are shaped by specific cultural contexts. An ideology is a collection of beliefs and values that form a way of looking at the world, which in turn shapes people's actions. Competing groups promote different ideologies; some defend the status quo and present the way things are as common sense, while others challenge the assumptions that underlie the status quo and argue for change. Ideological interpretation may examine blatant or subtle bias within texts, seek to recover texts—such as those written by women or people of color—that have been ignored by previous scholars, or investigate the relationships between texts and cultural beliefs. Marxism, gender studies and queer theory, feminism, race theory, and post-colonialism are common ideological lenses.

> **Disciplinary** approaches are concerned with applying specific theories or bodies of knowledge from a field of study to texts in order to gain a better understanding of the text and/or the discipline For example, imagine hieroglyphics in an Egyptian tomb. An anthropologist might read such a text to better understand the cultural practices signified. A linguist, on the other hand, might read the text looking for systematic or inconsistent patterns in the structure of the message to better understand the language. And a business historian might read the text looking for examples of how business transactions were recorded—in fact, some of the earliest known writing in any language was the recording of business transactions. Sometimes, researchers will use disciplines outside their own to read a text; for example, literary scholars might apply a psychological or historical lens to a text.

These categories are not exclusive or exhaustive, of course. It would be possible to do an interpretation that involved a rhetorical analysis of sexist language in a speech from a

women's studies perspective, for example. Also, some disciplines, such as cultural studies, are defined primarily by their ideological approaches to research, and it is common for scholars to combine interpretive lenses, particularly as more researchers undertake interdisciplinary projects. We find it useful to think about the rhetorical, ideological, and disciplinary motivations of textual studies, however, because every theory implies a specific vision of the roles of author, text, audience, and context that shapes the reading process and the evidence scholars emphasize in their interpretations.

Ideally, your rhetorical situation will suggest an appropriate interpretation to the text. Different interpretive lenses cause us to focus on different elements of a text or context, however, so it is worthwhile to re-read the text(s) through this interpretive lens to find specific evidence. For example, reading a selection of newspaper articles from the 19th century American West using a rhetorical lens will reveal certain qualities about the writing purpose and style, but it also might reveal certain patterns of behavior that would be interesting if looked at with an ideological lens. In finding an interpretive lens, keep in mind that often a pattern or its significance isn't clear until the end of a novel or after you have read four academic articles about a particular phenomenon. Recognizing such connections requires a comprehension of the texts and an ability to synthesize. There are also elements of intuition and serendipity that are difficult to codify.

We have indicated that you can interpret a text rhetorically, ideologically, and disciplinarily. These lens can provide a clear purpose to your research efforts so you don't get overwhelmed trying to capture everything that a text represents. However, you still may find that you have so many texts or contexts to contend with that you might need to further winnow down your choices. One way is to filter your interpretive lens to make your study more unique. Here are some possible filters to use:

- Historical – When was the text produced? What was going on at the time? What physical or philosophical conditions might have affected the author/text/audience? Most of the contexts discussed below can have an historical element.
- Geographical – Where was the work produced? How might national, regional, or local factors have influenced the work's production and reception?
- Cultural – In addition to cultures attached to places and nationalities, consider how ethnic, religious, sexual, or subcultural orientation of the author, audience, and/or subject matter shape texts.
- Psychological/Social – What are the manifest psychological motivations in the work? How does the work impact the groups that read it or that it is about?
- Critical/Evaluative – Is the work successful at achieving its purpose? Is it "good" or "bad"?

- Political – The political views of authors/composers and the dominant politics of their homelands can determine what they write about and how. You might consider obvious political links—such as how some authors satirize government figures—as well as more subtle influences—such as codes or metaphors an artist might have used to avoid persecution.
- Artistic/Aesthetic – Is the work part of a larger artistic movement? If so, how does it confirm or depart from the trend? Is the text representative of some genre? Is that a good thing?
- Biographical – Who was the author/creator? What was his or her life like? To what extent might the text(s) be autobiographical? When considering biographical influences, it is important to avoid assuming that an element or character represents the author.
- Bibliographical – consider the text within the larger body of work produced by the artist/author/speaker/director. How does the text compare to works that came before or after in terms of content, style, quality, etc.?

If your interpretive lens is your primary purpose, the filter becomes a way of focusing that purpose further. So you might want to study the rhetoric of presidential speeches, but you can filter that by studying the politics of the rhetoric. Or, you can study the aesthetics or the history of such rhetoric. What you want to avoid is trying to study too much. After all, different researchers will approach the same text with different purposes and approaches, and that is expected in text-based research. Although it is useful to cast a wide net early on in the research, when you get close to being able to compose an argument about your topic and selecting what is relevant and what is not, you will want to narrow your focus.

Discussion and Practice

Consider the interpretive lens (rhetorical, ideological, and disciplinary) and the proceeding filters. Name some combinations of lens and filters that would be useful for interpreting the following texts for the listed audiences

Text	Audience
The film *Drag Me to Hell*	Film students
The Declaration of Independence	Scholars interested in Thomas Jefferson
19th century maps of the Caribbean	Anthropologists
World War II, U.S. government posters	Women's studies scholars
Native American masks	Contemporary artists
"Because I Would not Stop for Death" by Emily Dickinson	Literary scholars
Airplane blueprints from the 1950s	Mechanical engineers

The list of filters above is not complete by any means. What are some other ways that you could interpret texts?

Chapter Project: Step 3

Return to the advertisements you worked with for Steps 1 and 2; take a closer look at them through the following interpretive lenses.

     a. Perform a rhetorical analysis of each advertisement. What strategies do the marketers use to appeal to audience emotions, establish the credibility of the product or its producers, and make logical arguments for purchasing the item?

     b. Next, try to view the advertisements through a more ideological lens. What does each ad suggest about the values of the culture that created it? What might it suggest about our society's views on gender, race, economics or other issues?

     c. Although this depends a lot on how much experience you have had in your major, attempt to read the ads using a disciplinary perspective in your major. This may be difficult, but attempt to read the ad as a history, biology, physics, or English major. Is it possible? What does such a reading reveal?

     d. In small groups, discuss your rhetorical, ideological, and disciplinary interpretations of print advertisements. You might compare your interpretations of the same types of ads or those for very different products and publications to see how appeals and suggested values vary in different rhetorical situations.

How Do You Do Text-based Research?

In this section, we will first discuss how scholars find texts to study. Then, we will consider two major approaches to interpretation.

Most scholars select which texts they will study based on either the needs of a particular research question or their affinity for certain texts or genres. Someone studying changing representations of female beauty over the last 100 years might look for advertisements and articles in women's magazines from each decade. Someone who is a science fiction fan might read many sci-fi novels or watch sci-fi movies and generate topics based on their knowledge and experience with these genres. We discussed how to find and work with published textual sources in Chapter 3. Many of those strategies apply when searching for various other texts as well, though media-specific databases, such as the Internet Movie Database (http://imdb.com) or Allmusic music database (http://www.allmusic.com) may prove more effective than general internet or library search engines. (Remember that all texts are subject to copyright and should be cited appropriately.) Finding well-known literary or historical texts or contemporary popular media, as well as secondary research about these texts, should prove relatively easy if you follow the guidelines from Chapter 3 or ask a research librarian for help. Another important avenue for discovering appropriate primary texts is archival research, which is probably less familiar to you than hitting the library or Googling a topic.

What is Archival Research?

Archives are collections of texts or artifacts with historical research value. These collections vary greatly in size, organization, and purpose, from an individual's archive of his grandparents' letters and scrapbooks to a government's archive of immigration records. Archives are maintained by individuals, churches and organizations, businesses, publications like newspapers, universities, and government bodies. Some archives consist solely of texts from a given historical period, while others are living archives to which items are added frequently. Many archives are housed in public or university libraries. Your college probably hosts a number of special collections, including an archive of documents and memorabilia tracing the history of the school. Today, many primary texts are being digitized and placed on the Internet. You can find early folk song recordings from the 1920s at the American Folklife Center, social guidance films from the 1950s collected by Rick Prelinger, and images of America's triumphs and tragedies at The National Archives.

You can explore the following online archives for examples of how these archives are managed and to generate possible research topics:

- George Eastman House http://www.eastmanhouse.org/ -- The once home of George Eastman, inventor of camera film and marketer of the Kodak camera, has become recognized as the oldest film museum in the world, housing over half a million images. The George Eastman House digital archives provide a large sampling of those images from 1839 to the present.
- Internet Archive http://www.archive.org/ -- this open archive houses everything from concert recordings (over 50,000) to old videos and websites. The Internet Archive is also the home of the Prelinger archive, a collection of over 60,000 educational and industry films, many produced as early as the 1920s.
- Library of Congress Digital Collections http://www.loc.gov/library/libarch-digital.html -- The Library of Congress has digitized images, maps, documents, rare books, and sounds from our cultural and social histories. Sections on Folklife, American popular culture, and war provide a great variety of texts to use in archival research.
- The National Archives Online Exhibits http://www.archives.gov/exhibits/ -- The National Archives have digitized many important images and documents of our nation. Images of the U. S. Constitution, love letters from presidents, and maps of the country's earliest forts are digitized and viewable online.

Archives give you access to primary documents that you can't find elsewhere, especially if they are historical documents. Some scholars visit archives to study rare books, original manuscripts, and foreign language documents because reprints, new editions, or translations can alter or obscure some textual details. Different types of archives are also valuable as records of day-to-day life that may not have been formally recorded elsewhere. For example, women's correspondence from the civil war can paint a picture

of domestic life and the effects of war in a different way than the official records of battles and fatalities can. Sometimes, individuals or organizations take great care in selecting items to archive based on what they value and hope to preserve. In other cases, archives develop more by chance and may include items and documents that the original users or authors never intended to preserve. Thus, in conducting archival research, one must remember that each collection offers only a partial representation of history and what is left out may be as telling as what is included.

Figure 10. *National Archives Online*, "The Deadly Virus" exhibit front page.

Discussion and Practice

1. Many families keep their own "archives" in the form of photo albums, scrapbooks, family trees, and memory boxes. In small groups, discuss what kind of texts and artifacts your families save. What do these collections tell you about your families, specifically their culture and their values?

2. Visit the National Archives Online exhibit on the Influenza Epidemic of 1918 at http://www.archives.gov/exhibits/influenza-epidemic/ (see figure 10). What kinds of texts and artifacts are included? What do they tell us? What kinds of texts and artifacts might you include in a collection about the H1N1 flu epidemic? You might search online for texts and images and explain why they would be useful for future researchers.

How Do You Conduct Archival Research?

If you are going to conduct archival research for a class, your professor will probably offer advice that is specific to the discipline. There are also a number of archival research guides available online. The following are some general suggestions for conducting archival research.

- **Locate relevant archives and determine if visiting them is feasible for your project.** Your professor or reference librarian can often point you to relevant archives, and your library probably subscribes to an online database, such as ArchivesUSA, that allows you to search collections. Because searching private collections and national archives can be expensive and time consuming, you need to decide if visiting remote collections is worthwhile for your project.

- **Once you determine which archives to visit, it is important to plan ahead.** Many archives have restricted access and specific rules of use, so you should contact the archive as far in advance as possible to see when they are open, if you are allowed access to the archive, and if you can schedule an appointment. You may need to register or present specific identification before using the archive.

- **You should also check the collection's rules** for what you can bring with you and what options you have for copying. For example, archives only allow pencils, not pens, and generally will not allow food or drink inside to prevent damage to documents. Likewise, you probably can't take in a bag or overcoat to prevent theft. Some archives will let you bring in a laptop for note-taking purposes. You might have the option to make photocopies yourself or have items copied for a charge. In the case of rare or delicate documents, however, you will probably need to transcribe the text yourself.

- **Make sure to take good notes on what you read**, copying important passages verbatim, and make sure to record the reference numbers and catalogue information of all documents you use so that you can cite the documents accurately in your writing and return to the documents if you need them again.

- **Don't be afraid to ask for help.** All archives have one or more archivists who manage the collection. These experts know more about the collection and how it works than anyone, and they are usually happy to assist eager and polite researchers.

- **Online archives often have special requirements and rules about how you use an artifact you find there.** Although basic copyright protection allows you to use images from any source for purposes of research and commentary, in many instances you cannot reproduce (copy or paste in a document) without

permission from the archive owners. Consult the archive you are using for special rules regarding how you can use the image, sound, or movie in your own projects.

In addition to serving as the main object of textual research, archival materials can be used to understand other texts. Whether your texts come from an archive, the library, the web, or some other media, you can work with them in similar ways through analysis, synthesis, and interpretation.

Discussion and Practice

Chapter Project: Step 4

So far, you have been studying contemporary ads. Now, visit an online advertising archive or library collection to find older advertisements for similar products and/or publications. Consider:

- *The Advertising Archives*, a UK-based collection of British and American advertisements from 1850 to the present.
  http://www.advertisingarchives.co.uk/index.php

- Duke University's *Ad Access*, an archive of US and Canadian advertisements from 1911 to 1955.
  http://library.duke.edu/digitalcollections/adaccess/

- Your campus library may also have a number of older periodicals in print or on microfilm that you can search for advertisements from previous decades. Make sure to print a copy and record the source for any ads you select.

Next, analyze one or two historical advertisements for their use of layout, graphics, and text to appeal to their audience. You should also consider how the ads reflect the culture and values of their time. How do these older ads compare to the recent examples you've been working with?

How Do You Interpret Texts and Contexts?

Using Outside Information to Understand a Text

Text-based research often requires collecting multiple texts to better understand one primary text. This **text-directed** research involves looking for both corroborating and contrasting texts to help us better understand a primary text. For example, an art professor may ask her students to study a painting and take notes on their personal interpretations of the work before having them read the artist's statement and discuss how this information changes their reading of the artwork. Other projects are far more complex in terms of the outside sources applied to a text. When linguistic experts Baron,

Bailey, and Kaplan wrote their amicus brief for the Supreme Court regarding the interpretation of the Second Amendment, they cited 4 legal cases, 8 constitutional provisions, 3 statutes, 12 letters, memos, and opinions, 19 dictionaries and grammar texts, and 17 other authorities in the form of primary texts. What these projects have in common is the goal of understanding the text itself.

Using Texts to Understand a Context or Culture

Another type of textual research involves using texts to gain a greater understanding of a specific context or culture. Whereas the text-directed studies discussed above generally focus on one text or a number of related texts, **context-direct** interpretations are more likely to use a number of representative texts. For example, a researcher interested in the Romantic reaction against Enlightenment Rationalism might study multiple poems by Wordsworth, Coleridge, and Blake. By tracing common themes in these poetic works, and perhaps reading the poets' correspondence and more general histories, the researcher can gain a greater understanding of this time in history—an understanding that this scholar or another might then apply to a cross-context comparison of that period and current tensions between our reverence for science and nature. Such an approach to research is not only academic. For example, advertisers will often collect ads from competitors and their products to learn how they can both imitate and separate themselves from the more common advertising strategies. In any case, these types of studies may emphasize one genre or media, such as poetry or music videos, but they also often include a variety of texts.

How Do You Conduct Interpretive Research?

Because the processes of **text-directed** and **context-directed** interpretation are closely related, similar ways of thinking and working through your primary and secondary sources apply in either case.

Survey your Possibilities

An important part of textual research is locating strong primary and secondary texts to help you create your interpretation. The research skills discussed in Chapter 3 will help you do so. But beyond accumulating a pile of texts, you need to select the best text for analysis or the most useful context documents to synthesize. Sometimes these texts will conflict, and other times they won't—all texts, however, can offer you some insight into your topic. The selection process calls for a lot of skimming at first to look for patterns in primary texts or critical commentary on a text or topic to help you create your interpretive lens. Once you generate an interpretation, pattern, or angle that intrigues you, you can conduct a more refined search for texts that speak to your topic. As you conduct this research, make sure to record the bibliographic information for all of the texts you review—even those you doubt you'll use—in case you decide to return to them later.

Read and Take Notes

Once you know what text(s) you will be working with, you should conduct a close reading. Indeed it is likely that you will need to conduct multiple readings in order to gain a clear understanding of the text(s) and begin to see salient points for analysis and synthesis. First, read for comprehension and make sure that you really understand what the text is saying. Consult dictionaries, reference books, and secondary articles if necessary, especially for historical documents or theoretical works. Next, look for patterns and consistencies as well as anomalies and contradictions. What features of the text(s) or context(s) stand out to you? What surprises or confuses you? As you read, annotate your printed text(s) or take copious notes about non-print texts.

Select and Apply Your Interpretive Lens

In some academic situations, the content of a course or instructions for a specific project will dictate your interpretive lens. In other contexts, you will choose your interpretive lens and filters based on personal interest or what seems most appropriate for the texts at hand. As you read and take notes, consider the interpretive lenses and filters discussed earlier in this chapter. Do you notice patterns that suggest an appropriate lens? Do you find yourself asking questions that might be answered by investigating some contextual angle? In selecting and developing your interpretive approach, you will probably find it helpful to read other interpretations of your primary text or other textual studies that use similar interpretive lenses or filters. Again, your professor might provide these texts or you may need to gather appropriate secondary sources using the strategies for finding and evaluating sources discussed in Chapter 3.

Whether your interpretive lens is assigned or arises naturally from the text or context under consideration, your goal will be the same—to determine how the theory helps you gain a better understanding of the text. In some way, the interpretive lens should help you re-see the primary text you are examining in a way that you had never thought of before. Remember that interpretation is a cyclical process. As you refine your lens or filters, you should revisit all or part of the text to look for new evidence that supports or challenges your interpretation. As you write about your own analysis, synthesis, and interpretation, you help your readers see your primary text in new ways as well; this is why interpretive lenses are called lenses in the first place. Your analysis should explain how and why the interpretive lens allows readers to gain a new understanding of the text or context under investigation and follow through by systematically applying your lens to specific evidence from the text and offering clear commentary about connections and implications. In the scholarly example later in this chapter, Kyle Bishop (2009) applies a cultural studies lens to zombie cinema to provide a greater understanding of how horror movies reflect our cultural concerns and how recent events shape our reactions to these films.

As you develop your interpretation of a text, you should continue to check your theory against the evidence and continue to think about the relevance and usefulness of your

interpretation. It can be tempting to think that interpretation is just subjective and that everyone is entitled to an opinion about a text, but it is important to note that not all interpretations have equal status. Credible text-based research provides clear evidence from primary sources and often draws on secondary sources for context or support. You'll definitely want to keep this in mind when writing an academic argument that uses non-academic sources to build your interpretive lens or apply your interpretation. A thoughtful psychological or feminist interpretation of *Juno* in a peer-reviewed journal will have more credibility than a review in your local newspaper. Even a popular website like *metacritic.com* weights reviews, noting that they: "assign more significance, or weight, to some critics and publications than we do to others, based on the overall stature and quality of those critics and publications." However, if your primary texts are recent, you will likely have difficulty finding scholarly secondary sources that address them directly. In this case, it may be acceptable to turn to well respected popular magazines, newspapers, and blogs for additional information and analysis. Decisions about which primary and secondary texts to use should always informed by the needs of a given study as well as the conventions and expectations of the audience for which it is written. Beyond the issue of finding credible evidence to prove a point, you should also keep the "so what" factor of your points in mind. Who will be interested in this interpretation? What can they learn from it? How does this research help us better understand the texts and contexts that shape our culture?

How Do You Write About Text-Based Research?

How Do You Choose Texts and Topics?

When undertaking a text-based project for a class, you might have limited options in terms of texts or contexts from which to create your interpretive lens. For example, you might be required to read *The Red Badge of Courage* and write about it as an example of American realism, or as a commentary on the horrors of war, or as a coming-of-age story. In other situations, you may be assigned a text, but given freedom in the approaches you can use to create your lens, or you may have the option to apply an assigned interpretive lens to a text or texts of your choice. Your project will be most successful if you use the choices you do have to your advantage by pursuing texts and/or contexts that are most interesting to you. It is also important to select texts and topics that are narrow enough for the amount of writing you are assigned. As we have indicated, selecting an interpretive lens and a filter can help you narrow down a large and unwieldy project. For example, it is unlikely that you could conduct a full comparison between the classical epic *The Odyssey* and the film *Oh Brother Where Art Thou?* in a four-page paper, but you might discuss the significance of similarities and differences between the characters of Penelope and Penny using a feminist ideological lens and psychological/social filter.

Ultimately, writing about text-based research is about answering questions about what a particular text means and how it communicates that meaning.

In this chapter thus far, you have had the opportunity to consider and collect a lot of different texts from different sources. As you begin thinking about what to write about those texts, think about audiences and purposes for your interpretation of those texts. Who would be interested in an interpretation of a vacuum cleaner advertisement? Where might you publish a text-based analysis of the H1N1 flu? Consider the following:

    a. What are some academic audiences who would be interested in text-based research? Where does this work appear?

    b. What are some popular or public audiences who would be interested in text-based research? Where does this work appear?

    c. Considering these two audiences, what are the similarities between the purpose, writer's persona, and audience? What are some differences?

Chapter Project: Step 5

So far, you have collected a number of contemporary and historical advertisements and looked at them from several perspectives. Review the work you've completed and think about what aspects and approaches you find most interesting. How can the context for one or more of the ads—time, region, publication, etc.—help us better understand and interpret the ad(s)? How can a collection of ads help us better understand the culture that produced them? Did you enjoy the synthesis process, or were you more interested in your rhetorical, ideological, or disciplinary interpretations?

In the end, what do you most want to say about the ads you've been studying and what genre would be appropriate? You should also brainstorm some audiences outside your classroom who would be interested in your text-based research on advertising. You might consider a formal rhetorical analysis for an academic audience, an ideological argument about the ads' content for magazine readers, or a new ad campaign proposal for a company or marketing firm.

How Do You Develop a Thesis?

Most text-based research writing is *thesis-driven*. In other words, the author offers a specific argument or interpretation and supports his or her reading of the text(s) from this specific interpretive lens with specific evidence. A good thesis is specific, arguable, and appropriate in scope. While many texts include a clear thesis statement near the beginning, some text-based studies use a delayed-thesis structure. For example, an author might present several possible interpretations of a poem before explaining which one she thinks is more plausible in her conclusion.

The important thing to remember about your thesis in text-based research is that it is *yours*. While your interpretation doesn't have to be completely original, it does have to originate from you in some way. If you are just summarizing a work and/or what everyone else has said about it, you are writing a report and not an argumentative research paper.

The following sequence illustrates one progression from a general topic to an effective thesis:

> Initial Interest: *Fight Club*
> > *That's too broad. Are we talking about the book, the movie, or a comparison of the two?*
>
> Topic Idea: Comparing the book and film of *Fight Club*.
> > *Okay, but what features?*
>
> Issue: The ending of the film version of Fight Club differ significantly from the conclusion of the book.
> > *That's obvious—you need to say something more and take a stand about that fact.*
>
> Thesis: The explosive ending of *Fight Club* provides the Hollywood ending that movie-goers expect, but the more ambiguous conclusion of the book highlights the narrator's ambivalence toward "normal" society.
> > *Better. This thesis sets up an evaluation—the book ending is superior—based on implied criteria—the book ending is an extension of character development and the book's themes, and the film should be true to the book.*

A common mistake made by many text-based scholars is to chain themselves to this initial thesis. Instead, you should treat this thesis as a work in progress—a first-step towards organizing your writing. As you continue in the process, you might want to revise this thesis. For your purposes in text-based research, consider this a "working" thesis. Once you have established a working thesis, you should return to your texts and notes to find support. You may continue to refine your thesis statement, and for larger projects you might end up with several related theses. As you (re)read your primary texts and consult secondary texts related to your thesis, you will likely develop a number of points or arguments and find a lot of evidence that you could use to develop each. The next step is to move from the gathering stage to selection and organization.

Discussion and Practice

Much like in the *Fight Club* example, consider some other comparison between two texts originating from the same source. Comic books, novels, television shows, movies, and toys are often transformed from one media into another, or evolve in other ways (for example, G.I Joes and Barbies have changed with the times, movies are remade, etc.). Think of one such comparison that you are familiar with.

- Describe the topic—what are you comparing?
- Describe the issue—what element or elements between these two texts are different
- Draft a working thesis—what is your interpretation or why do you think this difference exists?
- Name an audience who may be interested in such an interpretation.
- What sorts of primary and secondary texts would you need to research/collect for this project and this audience?

Chapter Project: Step 6
Construct a thesis that your audience might be interested in about the ads you have selected. If you are having difficulty, consider the lenses and filters we described earlier. Remember, this is a working thesis, so it could change as you write. Next, brainstorm a list of points or claims that support your thesis.

How do you Select Evidence?

Selecting evidence to support your interpretation will be an ongoing process throughout your research. You will, of course, begin with a lot of texts, and most you won't even use in your final interpretation. How do you narrow down what might be useful and what isn't? You might begin by looking at those texts that support the interpretation you think you want to make. Sometimes, you will have to do more research as you continue to develop your argument. Selecting the right amounts and types of evidence will depend on your writing situation. Some audiences require certain types of texts. For example, an academic article will require evidence from other academic sources. Purpose and audience also determines how many primary and secondary texts you might use. In more public writing, you want to avoid too many references to outside sources because popular audiences don't necessarily have the patience or knowledge to be able to process those sources.

For most text-based arguments, there are two important principles:
1. The more unusual or original your argument, the more corroboration you will need for your claims.
2. The more removed from the primary text your sources are, the more evidence you will need.

Let's use the analogy of a crime scene investigation to further explain these two principles. If you have a suspect that comes out and admits to a crime, the argument is over. However, most cases don't progress that way. Investigators have to look for evidence to support the case. The more removed or circumstantial, the more evidence prosecutors have to have to make their case. For example, in "Dead Man Still Walking" later in this chapter, Kyle Bishop (2009) presents a variety of evidence to support his claim that zombie films have cultural and political significance. In some cases, Bishop can cite testimonial evidence from directors that confirm their intentions

and leave it at that. He supports other points with multiple, specific examples from zombie films and commentary from other authors.

How do you know when you have enough evidence? That is a question that depends on your audience and the rhetorical situation you are writing within. As a general rule, consider using at least two pieces of evidence per claim, but recognize that more may be better.

Discussion and Practice

1. We have already referred to Kyle Bishop's (2009) "Dead Man Still Walking" article in this chapter. When you read through this article more closely, count the number of primary sources and secondary sources Bishop uses to support each claim in his interpretation. Remember, this is not the total sources used because Bishop uses some sources to provide background about his topic.

2. During World War II, the U.S. Government used a massive advertising campaign to support the war effort. Figure 12 is an example from this campaign from a National Archives' special exhibit, *Powers of Persuasion*.
   a. How much evidence and what types would you need to support a rhetorical analysis arguing that this was an effective design?
   b. How much evidence and what types would you need to support an ideological interpretation?

Figure 12. Victory waits. NARA, *Powers of Persuasion* exhibit.

Chapter Project: Step 7

Textual analyses can be based solely on the evidence present in a text, but they are far richer if other texts are brought in for comparison or support.
   a. First, select specific evidence from your ad(s) to support each of your claims; write vivid descriptions of visual elements and choose quotations from the text.
   b. Next, find at least one other ad that supports a claim that you are making. For example, if discussing an emotional appeal is made with the font or typeface selection, describing the typical font pattern found in other ads can help strengthen your argument.

    c.   Now, use your library's database to find some secondary sources. For example, you might find journal articles by academics who study marketing or the effects of advertising on consumers. Or, you might find articles in professional or popular magazines about content or design elements that interest you or about the company whose ads you are discussing.

As you search for and select evidence, think about what will best support your claims and what kinds of evidence will be most persuasive for your particular audience.

How Can You Organize Your Writing?

The formats and organizational structures of text-based research are pretty flexible—form tends to follow function. Unlike the method or process-driven subdivision of headings (usually the IMRAD structure) common in qualitative and quantitative research, text-based writing tends to rely more on transitions within the text. If an author chooses to use subdivisions or headings, they are usually topic-driven and help highlight the specific types of analysis or interpretation being done. Still there are a few common organizational patterns that can help you present your ideas clearly to meet audience expectations.

Abstract
Many academic articles provide an **abstract**, which briefly introduces the texts being studied, the interpretive lens applied, and the author's thesis or findings (see Chapter 7 for a fuller discussion of abstract writing).

Introduction
Articles or essays that do not include an abstract may begin with a summary **introduction** that lays out the major texts and points that will be covered. Not all texts present a clear thesis statement at the beginning, but most will at least provide a forecasting statement to preview the contents of the article and let the audience know what to expect and how the primary text will be analyzed.

Literature Review
Most textual studies begin with a **review of previous scholarship** on the topic. Although textual scholars may not set aside a separate section for this purpose like qualitative and quantitative scholars are likely to do, it is still important for them to show how their research relates to previous readings of the same text or context. The literature review shows how the study is part of a larger conversation and helps to establish the author's credibility by demonstrating his or her familiarity with the topic and field. The review of the previous scholarship also establishes an argument for why the author needs to present his or her analysis or interpretation of the primary text and usually establishes that the author's reading of the primary text will be new in some way. In other words,

the review of the previous scholarship serves to highlight what has already been said on the topic but also what has not been said before, which is what the author will add with his or her analysis or interpretation.

It is important to note that while a literature review for text-based research is still a review of previous scholarship on the topic of study, just like in qualitative or quantitative research, it is usually written with a much different structure. The list below outlines in more detail the different components of a literature review for a text-based study. These components can appear in any order, depending on how you are constructing the argument in your literature review.

- The researcher will **likely define the interpretive lens** by summarizing key texts, defining terms, and perhaps explaining why this interpretative approach is appropriate for the study. By explaining their interpretive lens, authors demonstrate that they have a clear plan for their study, that they are reflective about their process, and that they understand that other interpretations are possible.

- In order to orient the reader, textual scholars almost always provide a **summary of the texts and contexts at hand**. For traditional print texts, this may take the form of a plot summary, an introduction to main characters and themes, an explanation of genre, etc. For visual and aural texts, like movies or music, the author might also include detailed descriptions to capture the experience of the text. For contexts or cultural phenomena, the author might offer an initial characterization that he or she will develop with textual examples. However, this summary is never exhaustive or overly lengthy; instead it serves to highlight and fully explain to the reader the parts of the text that will be especially important in the interpretation to come.

Application and Discussion of the Interpretive Lens
After explaining to the reader the texts and interpretive lens that will be used, the author can proceed to the **application and discussion** section, where the author applies the interpretive lens to the text. This part is usually the bulk of the work. Here, the researcher presents direct textual evidence and discusses in detail how the interpretive lens explains the text.

Common Patterns for Organizing the Application and Discussion of the Interpretive Lens

Authors might employ a variety of organizational or developmental patterns for applying and discussing their interpretive lens to a text. Using common patterns of compositions and maintaining consistent patterns within a piece of writing is another way to set and meet expectations for an audience and help them follow your line of reasoning.

How you structure the body of your paper depends largely on your content and purpose. For example, if you are using a rhetorical interpretive lens and writing a rhetorical comparison of two proposals, you will want to apply the same criteria to both texts. You might discuss the logos, ethos, and pathos of each work, or perhaps the content, organization, and style. Once you establish your main topics, you must decide if you want to follow a text-by-text or point-by-point comparison:

Option 1	**Option 2**
I. Text A	I. Ethos
A. Ethos	A. Text A
B. Logos	B. Text B
C. Pathos	II. Logos
II. Text B	A. Text A
A. Ethos	B. Text B
B. Logos	III. Pathos
C. Pathos	A. Text A
	B. Text B

Whichever pattern you choose, you should apply it consistently, following the same order in each section or paragraph.

When dealing with a broader range of texts, the topics or examples you are covering might suggest one of the following organizational patterns: chronological, genre-based (by type of text or media), spatial or geographical, thematic, general to specific, cause and effect, increasing importance or strength of arguments.

Some of these arrangements are also reflected in patterns for developing text-based paragraphs, which depend largely on the paragraph's purpose. Consider the following common paragraph purposes and strategies:

Illustration – Begin the paragraph with a topic sentence that makes a claim, provide one or more pieces of evidence, and then explain how the evidence supports the claim. Another way to remember this structure is PIE—point, illustration, explanation. Often, the illustrations will include quotations, which should always be clearly introduced and cited. One common complaint professors have about student research writing is the "dropped quote," which is when you insert quoted material without introducing it or explaining why it is significant. The final portion of the paragraph—the explanation—should be, well, explicit; readers might need more elaboration on a connection that seems obvious to you.

Definition – Introduce a key term and present a definition or offer one or more examples. Except in cases when a highly technical or historical definition is

required, it is usually best to come up with your own definition by drawing on multiple sources rather than quoting a dictionary definition. "According to Webster's" isn't a particularly intriguing way to begin a discussion, and you will increase your credibility by tailoring your definitions to the particular writing situation. Likewise, you should provide examples that are relevant to your audience, germane to the topic, and, if possible, drawn directly from texts you are discussing in your paper.

Description – Introduce the object to be described or an overall impression, choose an appropriate progression based on the type of object, and provide concrete details and connections between features. For example, you might describe a painting or photo spatially (left to right, top to bottom, foreground to background) or song based on lyrics, instrumentation, and tempo. Choose specific and concrete details to evoke the scene, artifact, or experience of the text/media for your audience—especially if you can't expect them to have seen it for themselves. This is the difference between "The model was skinny," and "the teenaged model was tall and painfully thin—attributes which were highlighted by her platform shoes and a bikini that showed every rib and vertebrae in stark relief." You should, however, avoid the opposite extreme of providing too much detail, which can get in the way of your main point. Only describe passages or attributes that relate directly to your main point, do so in as much detail as is practical and relevant, and make sure to conclude your description with some statement about the overall effect or significance of the matter being described.

Consequences/Effects – Introduce a possible or realized consequence of the claim and provide evidence for how such a consequence could be enacted. Sometimes these consequences are hypothetical, an interpretation that imagines what an effect would have if applied to other situations and contexts. In other instances, there are more direct effects. For example, biographer Patrick McGilligan revealed that film director Alfred Hitchcock had an overly controlling mother. The effect of this might be revealed in Hitchcock's movies and the portrayal of mothers in those movies.

Contrasts – Introduce a counterargument to a primary argument in your text, followed by a rebuttal of that claim. Contrast paragraph development is important in academic and public writing because it demonstrates to the audience that you, the researcher and writer, have at least considered alternative viewpoints. Despite the apparent fairness of including an alternative viewpoint, the important point is that the paragraph should emphasize the rebuttal, demonstrating how a conflicting claim may be wrong.

Categorization/Modeling – Introduce a system of categories or models of analysis to explain complex claims. In the example articles on horror movies in this chapter, the authors all use slasher and horror interchangeably. However, one might imagine a claim that these are different movies (the student example alludes to this at one point, but doesn't really develop it much further). One claim might be that there are four or five different types of horror movies, and evidence for each might provide insight for comparison.

Precedent – Introduce scholars or texts that have made similar claims before. A paragraph developed through precedent is useful for establishing the credibility of an argument because it is using corroborating evidence to substantiate one or more claims.

Conclusion

The **concluding paragraph(s)** can serve a number of functions. This is generally where the author recaps main arguments, discusses the limitations of the study, and makes suggestions for future research. Perhaps the most important function of the conclusion, however, is establishing or restating the "so what" factor or the significance of the study.

Discussion and Practice

Chapter Project: Step 8
We have presented a number of organizational patterns for larger projects and for individual paragraphs. For your advertizing project, the pattern you select will depend on your thesis and the type of audience you are writing for. Consider thinking through the following situations

    a. Write a short paragraph using each of the seven paragraph development patterns (illustration, definition, description, consequences, contrasts, categorization, and precedent). Consider these as experiments in writing, thinking about how each might help develop your advertisement paper. Which ones are most interesting? Which ones are difficult given your current evidence?

    b. Considering your audience and purpose, as well as your thesis, what organizational structure do you think would work the best for your paper?

What Style is Appropriate for Text-Based Research Writing?

Because researchers in many disciplines practice text-based research and present their results in a wide range of academic and popular publications, style and tone can range from highly theoretical and serious to accessible and humorous, as the examples in this chapter illustrate. Because text-based research relies heavily on the author's interpretation, however, even relatively formal works are likely to include first-person

pronouns in descriptions of methods as well as clear statements of opinion or evaluation.

Some types of interpretive and critical research—such as literary criticism and cultural studies—have historically been accused of being difficult to read due to reliance on theoretical jargon, long-winded descriptions, and obscure style. We recognize that authors writing for other experts may find certain technical terms useful and may be able to assume a particular body of knowledge. On the other hand, there is something to be said for making research as accessible as possible. Our advice to researchers and writers is to be as clear, coherent, and concise as possible and to remember that even traditional research papers are directed to readers who will appreciate an engaging style and clean prose.

Discussion and Practice

Chapter Project: Step 9
Consider the topic, genre, and audience for your advertizing project. Based on these factors, what style is appropriate for the rhetorical situation? Decide if your writing should be formal or informal, if you should use first person, and what level of vocabulary and diction your audience will be comfortable with.

Step 10
You've completed several types of invention and research, narrowed your topic and thesis, selected evidence, organized your points, and made decisions about style. Now it's time to bring all of your work together in a full draft. Share your draft with other students in your class and/or your instructor, ask for feedback, and then revise and edit your work.

As you complete this project, reflect on your process, what you learned about the benefits and limitations of text-based research, and how you can apply the strategies you have learned to future research projects.

Scholarly Example

Dead Man Still Walking: Explaining the Zombie Renaissance
Kyle Bishop
Southern Utah University

Bishop is a lecturer of English composition, American literature and culture, film studies, and fantasy literature at Southern Utah University. He is currently

completing his dissertation on the theoretical and cultural significance of zombie cinema at the University of Arizona. This article was published in the *Journal of Popular Film and Television*, a peer-reviewed journal whose contributors use "the methods of popular culture studies to examine commercial film and television, historical and contemporary. Articles discuss networks, genres, series, and audiences, as well as celebrity stars, directors, and studios. Regular features include essays on the social and cultural background of films and television programs, filmographies, bibliographies, and commissioned book and video reviews."

> The **abstract** is a common feature of academic articles. As an example of an abstract using text-based research, Bishop states his **thesis**, suggests his **cultural studies interpretive lens**, and provides a brief overview of zombie film traits

Abstract

Since the terrorist attacks of September 11, 2001, zombie movies have become more popular than ever, with multiple remakes, parodies, and sequels. This renaissance of the subgenre reveals a connection between zombie cinema and post-9/11 cultural consciousness. Horror films function as barometers of society's anxieties, and zombie movies represent the inescapable realities of unnatural death while presenting a grim view of the modern apocalypse through scenes of deserted streets, piles of corpses, and gangs of vigilantes—images that have become increasingly common and can shock and terrify a population that has become numb to other horror subgenres.

Wars and other tragedies affect cultural consciousness like the blast from a high-yield explosive or a massive earthquake. The ensuing shockwaves reach far and wide, and one of the best ways to recognize and understand these undulations is by analyzing the literature and film of the times. For instance, the use of atomic weapons at the end of World War II ushered in nuclear paranoia narratives like the films *Godzilla* (1954) and *Them!* (1954), and fear of the encroaching Communist threat inspired alien invasion stories like Jack Finney's novel *Invasion of the Body Snatchers* (1955) and the movie *Invaders from Mars* (1953). The terrorist attacks of September 11, 2001, caused perhaps the largest wave of paranoia for Americans since the McCarthy era. Since the beginning of the war on terror, American popular culture has been colored by the fear of possible terrorist attacks and the grim realization that people are not as safe and secure as they might have once thought. This shift in cultural consciousness can be most readily seen in narrative fiction, particularly through zombie cinema.

Since 2002, the number of both studio and independent zombie movies has been on a steady rise. Hollywood has re-embraced the genre with revisionist films like *28 Days Later* (2002), video game-inspired action movies like *Resident Evil* (2002), big-budget remakes like *Dawn of the Dead* (2004), and comedies like *Shaun of the Dead* (2004). The zombie craze continued with 2007 seeing the theatrical releases of *Planet Terror*, *28 Weeks Later*, and *Resident Evil:*

> This is Bishop's thesis. Notice how his thesis also forecasts his interpretive lens: an interpretation of how current events influence zombie films.

> Bishop cites **multiple, specific examples, quotes from experts,** and **quantitative data** to support his claim about the resurgence of zombie films since 9/11.

Extinction—the Sundance Film Festival even featured two zombie films that season—and with a remake of *Day of the Dead*, Romero's own *Diary of the Dead*, and *Zombie Strippers* all coming out in 2008. David Oakes's *Zombie Movie DataBase* web site confirms this increased interest in zombie cinema with data showing a marked rise in all kinds of zombie narratives over the past ten years; more than 575 titles are listed for 2006 alone. Peter Dendle, Pennsylvania State University professor and zombie scholar, observes that the number of amateur zombie movies has "mushroomed considerably" since 2000 (interview). Although the quality of many of these backyard, straight-to-video, and Internet-based productions remains a matter of debate, the striking surge in the genre's popularity and frequency cannot be denied.

The fundamental genre conventions of zombie cinema fit post-9/11 cultural consciousness well. During the latter half of the twentieth century, zombie movies graphically represented the inescapable realities of unnatural death (via infection, infestation, or violence) and presented a grim view of a modern apocalypse in which society's infrastructure breaks down. The twenty-first-century zombie movies are no different from their historical antecedents, but society has changed markedly since the World Trade Center towers were destroyed. Scenes depicting deserted metropolitan streets, abandoned human corpses, and gangs of lawless vigilantes have become more common than ever, appearing on the nightly news as often as on the movie screen. Because the aftereffects of war, terrorism, and natural disasters so closely resemble the scenarios of zombie cinema, such images of death and destruction have all the more power to shock and terrify a population that has become otherwise jaded by more traditional horror films.

> Bishop briefly summarizes the **cultural context** within which he situates recent zombie films. He will make more specific connections between these fictions and reality throughout his

The Developmental Cycle of Zombie Cinema: Establishing the Renaissance

The modern zombie movie has been around for almost forty years and, like other genres, it has gone through periods of feast and famine. According to film scholar Darryl Jones, the genre was born in 1968 with the release of George A. Romero's *Night of the Living Dead* (161), in which a motley group of people, led by an African American antihero named Ben (Duane Jones), must spend the night in a besieged country house, waiting for the authorities to arrive. When the county militia finally does show up, its first response is to shoot and kill Ben, the only survivor of the supernatural abattoir. The violence and graphic images in this low-budget horror film were unprecedented at the time, and the movie functions largely as a metaphor for the atrocities of Vietnam and racism. Called "hippie Gothic" by film theorist Joseph Maddrey (51), *Night* protests the war by graphically confronting audiences with the horrors of death

> Before discussing recent films, Bishop provides a **literature review** to summarize the **history** of the **zombie movie genre** and **related scholarship** about the **cultural and political**

and dismemberment and by openly criticizing those who use violence to solve their problems. The politically subversive film gained a cult following and eventually made more than $30 million worldwide ("Business Data for Night").

Recognizing the potential market and profitability of such movies, other filmmakers began to experiment with the story line in little-known films like *Garden of the Dead* (1972), *Return of the Evil Dead* (1973), and *Horror of the Zombies* (1974). In 1978, Romero released *Dawn of the Dead*, a lampoon of capitalism and rampant consumerism. It depicts a group of reporters and SWAT team members forced to barricade themselves for weeks into an abandoned shopping mall surrounded by zombies. Dawn was almost immediately followed by Lucio Fulci's unofficial sequel *Zombie* (1979), about a global zombie infestation originating on a voodoo-laden Caribbean island. The two films firmly defined the genre, with *Dawn* becoming a huge hit that grossed $55 million worldwide ("Business Data for Dawn"), and they spawned a veritable surge of classical zombie movies, such as *Night of the Zombies* (1981), *Revenge of the Zombies* (1981), *Mansion of the Living Dead* (1982), and *Kung Fu Zombie* (1982).

In spite of the proliferation of these movies and their success on B-reel screens, they seem to have played themselves out by the mid-1980s, especially after the arrival of Michael Jackson's "Thriller" video in 1983. This campy short film tried to be uncanny and frightening, but once the walking dead started to dance and jive with the King of Pop, zombies became nothing more than a joke. Although Romero tried to revitalize zombie films in 1985 with *Day of the Dead* (the metaphor this time addressing Cold War fears and paranoia), the genre was in its death throes. *Day* failed at the box office, and Maddrey supposes that "audiences in the carefree, consumer-friendly 1980s apparently did not feel the need for such a serious examination of personal and societal values" (129). Instead consumers wanted comedic movies like Dan O'Bannon's *Return of the Living Dead* (1985), which flagrantly abuses Romero's genre rules by featuring zombies that can talk and by introducing the now-quintessential eating of brains. With such unmemorable titles as *Zombie Brigade* (1986) and *I Was a Teenage Zombie* (1987), things only got worse as budgets plummeted and camp took the place of scripts.

Bishop cites another film scholar to further establish the connection between cultural climate and how films are

Historically, zombie cinema had always represented a stylized reaction to cultural consciousness and particularly to social and political injustices, and America in the 1990s saw perhaps too much complacency and stability for zombie movies to fit the national mood. The Cold War was over, the Berlin Wall had fallen, Ronald Reagan's Star Wars defense system was proven unnecessary, and George H. W. Bush's Gulf War had apparently been resolved. In fact, aside from some skirmishes in third-world countries, Americans were largely insulated from global warfare. Furthermore, in the Clinton decade, sexual impropriety took headlines

away from global genocide and tyrannical massacres. With nothing specific to react to or protest against, cinematic versions of the zombie genre declined steadily throughout the 1990s, although Peter Jackson's *Dead Alive* (1992) provided some fresh ideas by inventing a subgenre commonly called "splatstick" comedy, where blood and guts are the primary comedic medium. Nevertheless, virtually no new or original stories were produced in the decade at all, although Dendle observes that no-budget, direct-to-video productions continued to flourish (*Zombie Movie* 10).

Even though zombies were no longer a source of terror on the silver screen, young people found renewed interest in zombies through violent video games. In 1993, id Software released a revolutionary first-person shooter game called *Doom*, which features zombified marines; however, these basically two-dimensional foes use guns instead of teeth, and the game's plot is more science fiction than horror. While zombies continued to play bit parts in other games, the first true zombie video game—Capcom's *Biohazard* (since renamed *Resident Evil*)—did not appear until 1996. This game takes its central story line directly from Romero's movies, for players must explore an isolated country manor while shooting reanimated corpses and trying to avoid being eaten—although unlike Romero's movies, there is a lot more "fight" than "flight." Nevertheless, the terror and action of zombie movies translated quite logically from the big screen to the video screen, and a nontraditional form of narrative incubated the genre until it was ready to reemerge in theaters in 2002 with the release of two mainstream movies.

> Here and throughout this section, Bishop **tracks zombie content and themes across different types of media,** highlighting the intertextuality of modern media. **Tracing influences and**

By returning to the classical form of Romero's films, British director Danny Boyle began the zombie renaissance with the first truly frightening zombie movie in years. Riding high from his *Trainspotting* (1996) success, Boyle created a new version of the zombie story with *28 Days Later*, in which a man wakes from a coma to find London abandoned and full of decaying corpses. Boyle also introduced faster, more feral zombie creatures, keeping the monsters alive rather than dead, and audiences responded as if the genre were new, instead of just newly re-visioned. The film's $8 million budget eventually resulted in a $45 million gross in the United States alone ("Business Data for *28 Days Later*"). At about the same time, mainstream Hollywood was also trying to kick-start the genre by capitalizing on the popularity of the video game circuit with Paul W. S. Anderson's *Resident Evil*, an action-packed science fiction movie that is more video game than narrative. More big-budget films have followed, like the two *Resident Evil* sequels (2004 and 2007), remakes of *Dawn of the Dead* (2004) and *Night of the Living Dead* (2006), the revisionist comedy *Shaun of the Dead*, and Romero's return with 2005's *Land of the Dead*.

The popularity of the zombie continues to inundate other media as well. The shooting-gallery nature of zombie survival—the more you kill, the more keep popping up—still spawns new video games every year in which players become part of the action. The *Biohazard* series now has over a dozen titles, and Romero's latest zombie movie inspired the game *Land of the Dead: Road to Fiddler's Green* (2005). The zombie also found a logical home in graphic novels, most notably Steve Nile's George A. Romero's *Dawn of the Dead* (2004) and Robert Kirkman's ongoing epic series *The Walking Dead* (2004-present). Zombies can be found outside of narrative fiction in the humorous yet strangely eerie *Zombie Survival Guide* (2003). This parody of popular survival guides is a straightfaced, seemingly nonfiction effort by Max Brooks to prepare the public for an actual zombie infestation. Even a number of hard-rock bands have jumped aboard the zombie bandwagon (e.g., Zombie Ritual and their 2004 album *Night of the Zombie Party)*.

However, in spite of this evidence of a resurgence in the popularity of the zombie monster, no one identified the movement as having an official "renaissance" until Romero—the "Shakespeare of zombie cinema" (Dendle, *Zombie Movie* 121)—re-entered the game with *Land of the Dead*. In early 2006, Steven Wells wrote an article reacting to Showtime's made-for-TV movie *Homecoming* (2004), in which "Americans killed in Iraq rise from their flag-draped coffins and slaughter their way to the polling booths so they can vote out a warmongering president" (2). Wells shows an even broader impact, claiming that "there were zombies everywhere in 2005," from an all-zombie production of *Romeo and Juliet* to online zombie blogs and a zombie appearance on *American Idol* (2). Zombies even showed up in the sixth Harry Potter novel, if only for a brief cameo.

> Here and throughout the rest of this section, **Bishop is still writing his literature review**. However, he moves from discussing previous films to create context for his later interpretation to **using writing by other scholars and critics that support his thesis and help build his**

The appearance of zombies in print media other than graphic novels is perhaps the most notable evidence of a renaissance for the more mainstream public. According to Don D'Auria, an editor of horror novels, "Until three years ago [zombies] were really unseen. Then they just seemed to pop up everywhere" (qtd. in St. John 2). In a 2006 *New York Times* article, Warren St. John provides a number of examples of the zombie literary invasion: Brian Keene's *The Rising*, a novel about "smart zombies"; David Willington's *Monster Island*, about a zombie infestation in Manhattan; and *World War Z: An Oral History of the Zombie War*, another faux nonfiction creation from Brooks (1, 13). In addition, Stephen King, the unequivocal master of modern literary horror, finally released a full-blown version of the zombie story with his 2006 novel *Cell*, a chilling morality tale in which unnamed terrorists turn the majority of Americans into enraged cannibals by brainwashing them with a mind-scrambling cell phone signal.

While the zombie renaissance is basically a given to zombie scholars and fans, such coverage from mainstream publications like the *New York Times* gives

Wells's observations greater credibility as well as publicity. The return of the zombie, most obviously and prolifically in film, has fully come to the public's attention. St. John summarizes the renaissance: "In films, books and video games, the undead are once again on the march, elbowing past werewolves, vampires, swamp things and mummies to become the postmillennial ghoul of the moment" (1). All this evidence points to one unavoidable fact: "zombies are back" (2).

The Primary Characteristics of Zombie Cinema: Understanding the Genre

The twenty-first-century zombie movie renaissance seems fueled in part by the popularity of zombies in other media and by the relatively low cost and ease of making splatterfest films. But to explain this phenomenon and to understand the post-9/11 social relevance of zombie cinema, the essential characteristics of such films must be examined and the genre must be differentiated from other horror genres. Unlike many other tales of terror and the supernatural, the classical zombie story has very specific criteria that govern its plot and development. These genre protocols include not only the zombies and the imminent threat of violent deaths, but also a postapocalyptic backdrop, the collapse of societal infrastructures, the indulgence of survivalist fantasies, and the fear of other surviving humans. All of these plot elements and motifs are present in pre-9/11 zombie films, but they have become more relevant to a

modern, contemporary audience.

The most conspicuous feature of zombie movies is naturally the zombies themselves—both what the creatures are and, perhaps more important, what they are not. Audiences fear these ghouls for a number of obvious reasons: they are corpses raised from the dead, and, more significantly, they are the corpses of the known dead, what horror scholar R. H. W. Dillard calls "dead kindred" (15). In addition, the zombies pursue living humans with relentless dedication and kill people mercilessly by eating them alive. Because zombies are technically "dead" rather than the more romantic "undead" (i.e., ghosts and vampires), they possess merely a rotting brain and have no real emotional capacity. Toward that end, zombies cannot be reasoned with, appealed to, or dissuaded by logical discourse. Other supernatural foes devised by authors and Hollywood filmmakers are generally conscious, thinking individuals. In fact, in recent years, traditional supernatural monsters have become sympathetic protagonists and misunderstood heroes, like the ghosts in *The Sixth Sense* (1999) or *The Others* (2001), the vampires in Anne Rice's tales, or characters like Angel and Spike in the

Here Bishop lists the exact genre features he will discuss. He indicates that he will use a categorization/ modeling pattern in this section, using the genre features

Notice how Bishop explains again that these genre features will support his thesis

In this paragraph, Bishop discusses the first genre feature of his analysis of zombie films: zombies themselves. However, he doesn't just list zombies as a genre feature and then stops. He explains exactly why zombies in particular are more terrifying than other monsters in order to better support his thesis of how 9/11 could have influenced them. He also illustrates and

television series *Buffy the Vampire Slayer* (1997-2003) and *Angel* (1999- 2004). Such qualities for zombies are logical impossibilities.

What's more, in contrast to other supernatural or undead creatures, the zombie directly manifests the visual horrors of death; unlike most ghosts and vampires, zombies are in an active state of decay. Simon Pegg, cowriter and star of *Shaun of the Dead*, observes, "Metaphorically, this classic creature embodies a number of our greatest fears. Most obviously, it is our own death, personified. The physical manifestation of that thing we fear the most" (133). It is no coincidence that the modern cinematic zombie cycle began "on the eve of the Tet offensive in Vietnam" (Maddrey 122), when the general populace was being exposed to graphic images of death and violence on the nightly news. In addition, the inescapable realities of mortality ensure that every viewer could both fear and relate to the zombie; although no one expects to rise from the grave as a cannibalistic ghoul, everyone will die and rot.

> In the next two paragraphs, Bishop includes two other good reasons for why zombies are particularly terrifying.

As audiences have become more familiar with special effects and more accustomed to images of violence, cinematic depictions of zombies have had to become progressively more naturalistic and horrific. In *Night of the Living Dead*, the ghouls are basically just pasty-faced actors; even the scenes of cannibalistic acts are less shocking because the film is in black and white rather than color. By *Dawn of the Dead*, the zombies have become more realistic (yet strangely blue), and scenes of death and dismemberment are shockingly graphic and naturalistic—thanks for the most part to special effects wizard Tom Savini, who claimed that "much of my work for *Dawn of the Dead* was like a series of portraits of what I had seen for real in Vietnam" (qtd. in Skal 311). Now, after thirty more years of global warfare and bloodshed, the twenty-first century audience, largely desensitized by graphically violent video games and other media, almost demands an upping of the ante. In response, *28 Days Later* and *Land of the Dead* feature zombies with missing limbs, decaying flesh, and only partially constituted heads and faces; even the rather light *Shaun of the Dead* (a self-proclaimed "romantic comedy" zombie film) has some particularly gruesome ghouls and nauseating dismemberment scenes.

> Note how Bishop uses **clear transitions (which are highlighted in grey)** throughout the genre features section to **highlight the network of concerns and fears** these films tap into. Here he moves onto the next genre feature that forecasts and builds his interpretation to come that our fears from 9/11 influenced

Yet even though zombies are certainly uncanny and frightening by themselves, such monsters would not prove much of a threat if they appeared in the modern-day world; certainly the police or military would be around to exterminate the monsters. But zombie movies are almost always set during (or shortly after) the apocalypse, when those reassuring infrastructures cease to exist. In *Night of the Living Dead*, the zombie infestation seems limited to just one backwoods county, but by *Dawn of the Dead*, the impression is rather clear that the whole world is overrun. Romero's feckless survivors hide out in a

shopping mall for an indeterminate amount of time, waiting in vain for the resumption of media broadcasts and for help that never arrives. *28 Days Later* is based on the premise that all of the United Kingdom has been decimated in just under a month, and *Land of the Dead* is even bleaker: the film is set in a zombie-dominated world, where Pittsburgh has been set up as a city-state unto itself. In all of these scenarios, the virus, plague, or infestation has been so rapid and complete that cities are quickly overrun, buildings abandoned, posts deserted, and airwaves silenced.

One of the greatest—or at least the most detailed—literary imaginings of the apocalypse is King's *The Stand*, a novel with no zombies but with most of the other zombie motifs: the story explores both the utter fall and eventual resurrection of the United States following a devastating and global viral pandemic. King's novel blames the end of modern society on the governmental military complex, tailoring the deterioration of America's infrastructure on William Butler Yeats's description of the end of the world: "Things fall apart; the center cannot hold." This poignant image is central to zombie cinema; Brooks describes the new world order in his *Zombie Survival Guide*:

> When the living dead triumph, the world degenerates into utter chaos. All social order evaporates. Those in power, along with their families and associates, hole up in bunkers and secure areas around the country. Secure in these shelters, originally built for the Cold War, they survive. Perhaps they continue the façade of a government command structure. Perhaps the technology is available to communicate with other agencies or even other protected world leaders. For all practical purposes, however, they are nothing more than a government-in-exile. (155)

Once people start to die at an uncontrollable rate, panic rages through all levels of the government and the military, and most would be more interested in saving themselves and their families than in doing their jobs.

The breakdown of social order leads to one of the more curious allures of zombie films: their ability to play out survivalist fantasies. Extreme followers of the survivalist credo hoard foodstuffs and ammunition in their isolated mountain cabins and basement bunkers, just hoping for the day when society will collapse and their paranoia will finally be justified. Like Brooks's book parodies, numerous survival manuals and Web sites—such as Jack A. Spigarelli's *Crisis Preparedness Handbook* (2002) and Joshua Piven and David Borgenicht's *The Complete Worst-Case Scenario Survival Handbook* (2007)—encourage and direct such behavior and apocalypse narratives allow their followers some cathartic enjoyment. Furthermore, as realized in movies like *The Omega Man* (1971) and *Night of the Comet* (1984), the end of the world means the end of capitalism, and everything

becomes free for the taking. As a matter of survival, looting becomes basically legal—or at the very least, there is no law enforcement presence to prevent wanton theft. Anyone can own a Porsche, wear the latest Paris fashions, or go on an unbridled shopping spree.

The best depictions of this contradictory "fun amidst the terror" are found in the 1978 *Dawn of the Dead* and the 2004 remake by Zach Snyder. Both films take place primarily in shopping malls, locations that afford both security and sustenance. In the '78 version, Romero presents a light-hearted montage showing the four remaining survivors at play among the many shops available to them—playing basketball, eating exotic foods, and putting on makeup and expensive clothes—living out what horror scholar David J. Skal calls "consumerism gone mad" (309). Snyder's film includes a similar montage: finding themselves relatively safe from everything but boredom, the survivors play games, try on expensive clothes and shoes, watch movies on big-screen televisions, and even play golf. In a sick way, the mall is the ultimate vacation resort—they just can't ever go outside. An abbreviated version of the same idea is present in *28 Days Later*: in a parody of game shows like *Supermarket Sweep* (1990-2003), the four survivors race around a grocery store, filling their carts with all the goods they can carry.

Such sequences show that once the survivors take both the law and their protection into their own hands, establishing some kind of defensible stronghold—like a shopping mall, a bunker, an ordinary house, or the neighborhood pub—the zombies cease to be much of a direct threat and become more animals to be avoided. Instead, the real fear comes from the other human survivors-those who can still think, plot, and act. As Dillard points out, "The living people are dangerous to each other, both because they are potentially living dead should they die and because they are human with all of the ordinary human failings" (22). In most zombie films, the human protagonists eventually argue, fight, and even turn against one another; cabin fever can make those inside the strongholds more dangerous than the zombies on the outside (Jones 161-62). In addition, the journey from survivor to vigilante is a short one; with the total collapse of all governmental law-enforcement systems, survival of the fittest becomes a very literal and grim reality. Those with power, weapons, and numbers simply take whatever they want. However, in the new zombie economy, everything is free—except other humans, of course. For lawless renegades, the only real sports left are slavery, torture, rape, and murder, which appease base appetites that cannot be satisfied by simply going to the mall.

In the 1978 *Dawn of the Dead*, the peaceful haven of the shopping mall is destroyed by the violent arrival of a vigilante biker gang. These bandits, whose primary aim is to loot the stores, disrupt the careful

After **defining existing conventions** of the zombie film genre, Bishop is able to explain how **more recent films adopt or adapt these features** for contemporary audiences. This is where he applies his interpretive lens of contemporary society to his text which is recent horror films. For instance, here he directly states that our fears from 9/11 heighten our fears of the apocalypse that is a genre feature of most zombie films.

balance established between the zombies and the remaining survivors; as a result of the bikers' intrusion, more people die and all security is lost. In *28 Days Later*, this vigilante scenario is all the more frightening because the primary threat comes from the military, soldiers who are supposed to protect citizens, not abuse them. In a misguided attempt to repopulate the world, the soldiers threaten the female protagonists with rape, and Jim (Cillian Murphy) narrowly escapes execution for defending them. The threat of the zombies remains a fundamentally frightening part of the movie, but because the threat of bodily harm and rape are real world potentialities, they are all the more terrifying.

The Twenty-First-Century Zombie: Explaining the Renaissance

The post-9/11 zombie film remains remarkably true to the genre's original protocols. Although the zombies are not always literally dead, as in Romero's films, the apparent apocalypse and collapse of societal infra-structures remain central features. In addition, the genre tends to emphasize certain causes for the end of the world, including infectious disease, biological warfare, euthanasia, terrorism, and even immigration. Although the genre is forty years old, these concepts resonate more strongly with present-day Americans than ever before, where events like the September 11 attacks, the war in Iraq, and Hurricane Katrina provide comparable forms of shocking ideas and imagery.

The end of the world is the ultimate societal fear, made all the more real by current weapons of mass destruction, and Snyder's remake of *Dawn of the Dead* depicts this apocalypse through a sequence of shocking events most zombie films simply imply. Ana (Sarah Polley), the film's protagonist, wakes one morning to find the world she knew collapsing around her. Her husband is trying to kill her, neighbors are shooting one another with handguns, and explosions of unknown origins rock the skyline. The chaos, disorientation, fear, and destruction she witnesses are disturbingly similar to the initial news footage broadcast on September 11, 2001. Although Jim in *28 Days Later* wakes after the apocalypse is essentially over, the film nevertheless presents a disturbing sequence of images of a metropolitan London void of all human presence. At the time of its conception, this moment in the screenplay was probably intended to simply shock audiences with its foreignness, but after September 11, the eerie street scenes take on new meaning.

Screenwriter Alex Garland joins Boyle on the *28 Days Later* DVD commentary track, where they discuss the historical antecedents of the film's imagery. The screenplay was written and filming had begun before September 11, so Garland and Boyle drew from other international crises and disasters for apocalyptic images. The scene in

> Notice how in this paragraph, Bishop uses an illustration organizational pattern. He first makes his claim that the apocalypse is our worst fear and zombie films heighten this fear. He then gives specifically examples from zombie films to illustrate this point.

> Bishop uses **direct quotations** to illustrate how film influences the way people see reality, as well as how changing realities shape how audiences view films. Bishop quotes directors about the **intended cultural and political commentary** to further support his thesis about zombie films and 9/11 and to build his critical lens examining how current events have shaped zombie films. Note how author, audience, and artifact all inform Bishop's analysis.

which Jim picks up stray pound notes off London's empty streets was directly inspired by footage from the "killing fields" of Cambodia during and after the reign of Pol Pot. The street billboard displaying hundred of photos and notes seeking missing loved ones, which has a direct tie to 9/11 now, was based on an actual street scene following a devastating earthquake in China. The abandoned city, overturned buses, and churches full of corpses were all inspired by existing moments of actual civil unrest and social collapse.

Such images of metropolitan desolation and desertion certainly resonate strongly with contemporary audiences. According to Brooks, "People have apocalypse on the brain right now. . . . It's from terrorism, the war, [and] natural disasters like Katrina" (qtd. in St. John 13). During and after the collapse of the World Trade Center towers in New York, numerous journalists and bystanders commented on how the events seemed unreal—like something out of a movie. After Hurricane Katrina, Kevin Lair, who lived with his family near where the 17th Street levee burst, told reporters, "The whole thing looks like something out of a science fiction movie" (qtd. in "It's Like"). Additionally, John Graydon, who rode out the aftermath of the storm in the Superdome, called his father in England and said, "It's like a scene from *Mad Max* in there" (qtd. in Beard). Nightly news clips showed the deserted streets of New Orleans as if the city were a film set, with abandoned cars, drifting newspapers, and stray dogs. Of course, these events may not directly affect the production of zombie movies, but they certainly affect an audience's reception of those films.

Romero's movies, like all great fantasy texts, have always offered critical metaphors, and the great twenty-first century zombie films continue in this vein. According to Andy Coghlan of *New Scientist* magazine, "Infectious diseases are indeed the new paranoia that's striking Western society" (qtd. in James); fittingly, *28 Days Later* is about the risks of an unstoppable pandemic, in which a blood-borne virus can wipe out the entire United Kingdom in just under a month's time. Furthermore, the film makes the somewhat abstract potential of zombification a much more visceral reality. Boyle's characters refer to the ravenous monsters as "infecteds," not "zombies"—the creatures are not technically dead at all, but hapless people infected with a psychological virus that makes them ultra-aggressive and violent. This kind of zombie is more frightening than the traditional fantasy monster, and instead of just being a horror movie, *28 Days Later* crosses into science fiction: it could happen. In fact, Boyle calls the movie "a warning for us as well as an entertainment" (qtd. in James).

The psychic plague of *28 Days Later* is most likely a reference to AIDS, but it could just as easily reference cholera, smallpox, or anthrax. In fact, in an unsettling irony, England experienced a devastating outbreak of foot-and-mouth disease during the filming of *28 Days Later*, resulting in the slaughter of millions of

livestock (Boyle and Garland). Similarly, the *Dawn of the Dead* remake was shot during another scare: the SARS epidemic of 2003. Snyder noticed the alarming parallels between his film and the nightly news; both were fraught with panic and misinformation (Snyder and Newman). The threat of infestation and other biohazards is hardly less significant today; it is hard to view either film—or any zombie movie, for that matter—without thinking of the recent threat of bird flu or avian influenza.

The idea of a terminal, debilitating illness or infection leads to the less obvious issue present in all zombie movies: euthanasia. These films raise the question: is it better to murder loved ones or to allow them to become something monstrous? In Romero's *Land of the Dead*, those bitten by zombies are given the choice of being killed immediately, since the virus takes time to work. Like a terminally ill patient, those infected by the zombie virus have time to say goodbye, put some affairs in order, and determine the method of their own death, enacting a kind of morbidly poignant "living will." In *28 Days Later*, however, anyone infected must be killed at once—and often brutally; the virus takes only twenty seconds to fully manifest its insanity. When Selena's (Naomie Harris) traveling companion is bitten in a zombie attack, Selena immediately hacks off his injured limb and butchers him with a machete. In an even more pathetic scene, young Hannah (Megan Burns) barely gets the chance to say goodbye to her father (Brendan Gleeson) before the British military shoot him. The slaughter of the infected living becomes an essential form of mercy killing; the choices of the zombie landscape are hard ones, but survival is the top priority.

All of these narrative motifs and cinematic images can resonate strongly with modern viewers of the zombie movie, but the primary metaphor in the post- 9/11 zombie world is terrorism. According to St. John, it does not take much of a stretch to see the parallel between zombies and anonymous terrorists who seek to convert others within society to their deadly cause. The fear that anyone could be a suicide bomber or a hijacker parallels a common trope of zombie films, in which healthy people are zombified by contact with other zombies and become killers. (13)

The transmission of the zombie infection is a symbolic form of radical brainwashing. Because anyone can become infected (i.e., conditioned) at any time, everyone is a potential threat; thus, paranoia becomes almost as important as survival. Those bitten often hide the injury, so even friends and family members cannot be fully trusted. In fact, the first zombie encountered in the *Dawn of the Dead* remake is a young girl, her apparent innocence making her violence all the more shocking.

Romero's *Land of the Dead* depicts a post-zombied society, a world where the enemy is literally at the gates. Pittsburgh has been converted into an island stronghold, with rivers and electric fencing keeping the zombies out (and the residents safely in). Class division is more critical than in other zombie films: the upper class lives an opulent lifestyle in Fiddler's Green, a luxurious highrise, while ignoring the problem; the commoners, however, must face reality while living in the slums below. In a documentary by Marian Mansi about the making of *Land of the Dead*, Romero comments, "Thematically, what the film is about is a bunch of people trying to live as though nothing has changed. Or at least that's what the administration believes. The protagonists understand that the world has completely changed." To keep the wealthy properly fed and supplied, the poor and industrious must risk their lives by venturing outside the city's fortifications, scavenging the countryside in an ever-increasing radius. They see the grim horrors of death and infection every day, much like soldiers on the front line of combat.

> This passage is an example of **ideological interpretation**, as Bishop discusses how the film challenges the values of capitalism and highlights economic inequality.

The wealthy elite in Fiddler's Green are literally isolated from the grim facts that make their lifestyle possible. To ensure the status quo, Dennis Hopper's Kaufman, the self-appointed leader of Pittsburgh, constructs the world's most extreme border security-blown up and barricaded bridges make the rivers impassable, and electric fences and armed guards protect the area from any intrusion; in an extreme example of xenophobia, soldiers shoot any intruders on sight. These forms of immigration control have become even more jarringly familiar with recent debates about erecting a fence between the United States and Mexico and the redeployment of National Guard troops to guard the United States' southern border during George W. Bush's presidency. *Land of the Dead* is certainly not subtle in its critique of modern American foreign policy; in fact, in Mansi's documentary, Romero goes so far as to identify the fascist Kaufman as Donald Rumsfeld and the Fiddler's Green tenants board as the Bush administration. Like Americans in the years immediately after the 9/11 terrorist attacks, the residents in Land of the Dead are asked both to continue their lives as if no real threat existed and to behave in certain ways because of the threat that does exist.

Conclusion

Although the conventions of the zombie genre remain largely unchanged, the movies' relevance has become all the more clear—a post-9/11 audience cannot help but perceive the characteristics of zombie cinema through the filter of terrorist threats and apocalyptic reality. Dendle emphasizes that the problem is "sorting out whether the movies really are doing something different in the post-9/11 world, or whether it's simply that audiences can't help but see them differently now" (interview). Most twenty-first-century zombies are faster, more deadly, and symbolically more transparent, but otherwise the films follow the

mold Romero invented back in the 1960s. Yet they are different now, at least from the perspective of reception. As Dendle says, "we all view the world differently now, and . . . filmmakers and audiences alike are inherently attuned to read themes and motifs through different lenses than they would have before" (interview).

Initially, zombie movies shocked audiences with their unfamiliar images; today, they are all the more shocking because of their familiarity. In fact, fans of horror films, particularly apocalypse narratives like zombie movies, may find that the movies even help prepare them for reality. Dendle was approached in the summer of 2005 by a law student who had survived the horrors of September 11 firsthand. Although the experience was understandably shocking, this student claimed he had been emotionally prepared for the tragedy not by his family, community, or government, but by his long appreciation for zombie movies (interview). Perhaps zombie cinema is not merely a reflection of modern society, but a type of preemptive panacea, and that potential gives the genre both cultural significance and value.

> Bishop concludes by providing a final, **concrete example to support his thesis** about how 9/11 has shaped zombie films. However, in his conclusion here, he goes even further, explaining how interpretations of zombie films could positively influence society for change.

NOTES

> **End notes** are common in academic writing. They allow the author to provide additional **explanations and references** without interrupting the logical flow of their main argument.

1. These were Andrew Currie's Fido and The Signal, written and directed by David Bruckner, Dan Bush, and Jacob Gentry.

2. Oakes uses a rather liberal definition of zombie movies on his Zombie Movie Data-Base, including in his numbers any film that features undead or otherwise reanimated creatures, such as golems, mummies, and creatures possessed by demons.

3. This article is limited in scope to those films that openly embrace the genre conventions established by George A. Romero in his series of zombie movies (i.e., stories that feature hordes of cannibalistic human corpses that relentlessly pursue an isolated group of survivors and can only be killed by a gunshot or blow to the head). While zombies can be found in a variety of films prior to 1968, the majority of zombie movies made since September 11 follow Romero's genre lead, not those films addressing voodoo enslavement or alien invasion.

4. For more detailed readings of Night of the Living Dead, see Maddrey 49-51, 122-24; Jones 160-63; Dillard; and Paul Wells 80-82. For an in-depth psychoanalytical reading of the film and an investigation of terror in general, see Connolly 422-24.

5. For a discussion of the symbolism and capitalist critique in Dawn of the Dead, see Jones 163; Maddrey 126; Paul Wells 82; and Wood 125-27.

6. For more detailed discussions of Day of the Dead, see Jones 163-64 and Maddrey 128.

7. For instance, the direct-to-video films Rise of the Undead (2005) and Swamp Zombies (2005) boast total production budgets of $10,000 and $12,000 respectively, according to the "Business Data" sites for both films.

8. Two notable exceptions must be addressed. First, in the noncanonical "zombedies" of the 1980s and '90s, like Return of the Living Dead and I Was a Teenage Zombie, the protagonists do become zombies, and the plots of such films often revolve around turning the hapless heroes back to normal. As mentioned earlier, however, such films are not true zombie horror films. Second, Romero has been experimenting with the idea of zombie evolution, a concept progressing toward sentient ghouls. For example, in Day of the Dead, a quasidomesticated zombie named "Bub" is taught to use a razor, pick up the phone, and hold and fire a gun; in Land of the Dead, a former gas station attendant named "Big Daddy" leads a zombie attack, figuring out how to circumvent the humans' fortifications. Such an evolution seems illogical, but it is hard to argue against Romero, should he choose to adjust his own genre. Nevertheless, in spite of these experiments, the true zombie protagonist has not yet arrived.

9. Shaun of the Dead is certainly the most thought provoking and relevant of the zombedies, although the comedy is one of satire rather than just jokes and slapstick. Director Edgar Wright is suggesting that a zombie infestation would probably go unnoticed by the average middle-class worker; as depicted by Simon Pegg's Shaun, modern society has already turned everyone into zombies.

10. In fact, Romero considered filming a screen adaptation of The Stand, which Maddrey points out "would have been the one [of King's works] most suited to Romero's vision of America" (127).

11. This unpleasant possibility, that those hired to protect would actually cut and run, was manifested in New Orleans during Hurricane Katrina, when a number of local law-enforcement officers fled with their families ("N.O. Police").

12. This is one of the more interesting aspects of the zombie scenario, but it is one that cannot be fully explored in a two-hour film. Romero's Land of the Dead shows the breakdown of social structure most fully, but it would be best demonstrated by serialized narratives, such as Kirkman's graphic novels or a television series.

13. Once again, a zombie movie eerily echoes contemporary headlines: Land of the Dead was released the same summer that Americans debated the tragic case

of Terri Schiavo, who ultimately was taken off life support at the behest of her husband.

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Scholarly Example Reading Questions

1. Identify passages where you think Bishop uses analysis, synthesis, and interpretation. How do these text-based research strategies work together?

2. In several places, Bishop cites directors as a way of indicating what messages they hoped to convey in their films; this is commonly known as *authorial intention*. At other times, he notes that films now have meanings the authors could not have intended and focuses on what is known as *reader response—the interpretation of the reader instead of the author*. Where does Bishop use each

type of interpretation? How do you think these readings conflict with or supplement one another?

3. Although Bishop draws much of his material from zombie films as primary sources, he also cites previously published criticism. Locate passages where he does so. What kinds of information does Bishop cite from other scholars? What do these citations add to his article? How does he use these sources to support his thesis?

4. In Bishop's literature review, what is his interpretation doing that is new? In other words, how is his interpretation or "reading" of zombie films different from what anyone else has done before?

5. The side-comments include zombies and apocalypse as prominent genre features of zombie films. What are the other genre features of zombie films that Bishop includes?

6. The side-comments list two organizational patterns in the essay—categorization/modeling and illustration. Look back at the organizational patterns discussed on pages 30-31 of the textbook and see if you can locate any other organizational patterns. Why do you think these organizational patterns are used? How do they better support Bishop's thesis?

7. Bishop first analyzes zombie films as a genre—breaking down for his readers what the major genre features of a zombie film are—before he actually starts applying and discussing his interpretive lens of exactly how recent events, specifically 9/11, have shaped zombie films. Why do you think he does this analysis first before he does the application?

8. Bishop uses the interpretive lens of current events, specifically 9/11, for his "reading" of recent zombie films. What other interpretive lenses could you use to "read" or interpret recent zombie films?

9. a. From your own experience watching recent zombie films, did you agree with Bishop's interpretation of them? Why or why not? b. How would you interpret recent zombie films? What specific interpretive lens would you use? What details from recent zombie films would you use to support your interpretation?

10. Read through Bishop's end notes. What kinds of information do they contain? Why do you think he put this material into notes instead of integrating it into his article?

11. Transitions are important in long, complex explanations and arguments. Identify the transitions Bishop uses throughout his article. How are they structured and how do they tie one point to the next?

Students as Scholars

Remaking Horror: An Investigation of Horror Films and their Remakes

Jacqueline Evans
University of Denver

> A Denver native, Jacqueline Evans graduated in 2005 with bachelor's degree in Anthropology and Spanish. "Remaking Horror: An Investigation of Horror Films and Their Remakes" was written for the Cultural Narratives seminar led by anthropology Professor Bonnie Clark.

The study of narrative has often been left to the field of literature; however, it is a subject for a growing number of anthropologists. Formerly, scholars looked at the stories people tell as just that: stories. They were not necessarily considered to have any real importance in the understanding of a culture because the stories are often fiction, or cannot be proven to be "true." Stories were considered entertainment, and as such, as having little effect on a culture or its values. However, anthropologists increasingly understand that narrative performs an important role in culture. Cultural narratives, be they creation myths, stories that entertain, or even the writings of scientists and scholars, form a reflection of a culture. This function may be derivative of a culture's values and beliefs, but it also serves to reinforce a cultural identity. In hearing a story, a person is reminded of who his or her people are and what they, as a group, believe in.

> Evans sets the **context** for her article by introducing the concept of narrative as culturally significant and noting that narrative has recently become a research topic for anthropologists, which sets the disciplinary framework for her investigation.

An effective way to access this complex understanding of the identity of a group is to talk to people and find the stories they tell. The way the narrative is constructed, orally, in writing, through movies or song, and within genres can give insight to the way the culture forms its view of people. For example, as I will discuss later, the Western Apache think highly of the creative capacities of all people and therefore give little detail in the telling of a story. They leave it to the listener to paint the full setting and exact series of events upon hearing the story.

> **Forecasting statements like this one** let the reader know what will be discussed in the paper.

As I have argued, we reaffirm who we are through the stories we tell and the ways we tell them. When I think about this, it makes me wonder what we are saying about ourselves as a culture with

> Evans provides a forecasting statement, but not a clear thesis statement at the outset. However, this statement does forecast what she will do in the rest of the paper—a

horror movies. Horror movies are the films that are made to terrify. They are often not intellectual because they play on our base fears. They do not explain the source of danger, and the characters usually do not try to understand it; they just want to stop it. Often, the films include some bit of the supernatural or some "pure" form of evil—the killer with no motive and no remorse, who cannot be caught except possibly by those he tries to kill. Many of these stories are told and re-told repeatedly. They start as urban legends or as novels that are then made into movies, which are in turn remade. The horror genre is hugely popular, but what does it tell us other than the fact that we like to be frightened? Unfortunately, I cannot even begin to answer that question with a small project like this, but I was able to look at the retelling of horror stories to see what the changes in the telling might say. In the following, I will analyze some reasons why horror films successfully frighten us, and also some reasons why they fail.

> Here Evans clearly narrows down what she will do in her paper and also forecasts how she will do it.

For my research, I viewed four well-known films and their remakes. I watched *The Haunting* (1963 and 1999), *The Texas Chainsaw Massacre* (1974 and 2003), *Psycho* (1960 and 1998), *Ringu* (1998) and *The Ring* (2002). Watching originals and remakes made it possible for me to look at the changes made to alter the telling of the story to make it more appropriate for current American audiences. I also sent out a questionnaire through e-mail and asked the same questions of people I know through work and school, getting information from thirteen respondents. The sample group contained eight males and five females, ranging in age from nineteen to thirty. The questions I asked them regarded their opinions of the horror movies they have seen and the reasons they watch them (see Figure 1 at the end of the paper). I used their responses to affirm or contradict my own conclusions after watching the movies and analyzing any available commentary on the DVDs, and to get some insight into how remakes are received in the community. My research was informed by current theories about and research into cultural narratives. While watching the movies, I noted that the philosopher Mikhail Bakhtin's model of narrative as a dialogic process helped me understand what makes movies succeed. The article, "Narrating the Self," by anthropologists Elinor Ochs and Lisa Capps reinforced the role of dialogue in the reasons people tell or re-tell stories.[1] In addition, I found that *Wisdom Sits in Places* by Keith Basso, an ethnographer of the Western Apache, holds yet another clue to what makes a horror film effective.

> Here Evans introduces the sources that inform her **interpretive lens**. This passage also serves as another forecasting statement, telling readers to expect more references to these secondary sources as Evans analyzes her primary film sources.

> In addition to her **textual analysis**, Evans conducts a small-scale **qualitative survey**. We discuss more fully developed qualitative research in Chapter 7 and mixed-method research in Chapter 9.

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[1] Elinor Ochs and Lisa Capps, "Narrating the Self," *Annual Review of Anthropology*, Vol. 25 (1996) 30.

In "Narrating the Self," Ochs and Capps indicate that narrative is a way of creating community through evaluating communal norms and ideas. If this is the case, then, horror films as a genre bring to light and evaluate the fears of our culture. They deal with murder, ghosts, the undead, and fear itself. When they are effective, they touch on the fears of the widest segment of the population. One of the young women I interviewed considers *Fried Green Tomatoes* to be a horror movie because the appearance of the Ku Klux Klan in the film frightened her so badly as a young girl that she had nightmares for a month.[2] While most people would agree that the KKK is an ugly organization with a history of violence and that it would be normal for a ten-year-old Jewish girl to be afraid of them, they would not classify *Fried Green Tomatoes* as a horror film. This illustrates the idea that every member of an audience "is an author of an emergent narrative," and that each person will "link the telling to their particular lived and imagined involvements in the world."[3] Thus, as with any narrative, the audience must be able to connect with the story of a horror film. They must be able to put some part of themselves into it, or the terror of the story will not reach them.

> This paragraph follows a **point-illustration-explanation pattern** of development to establish a key claim for Evans' analysis.

For this reason, movies are remade, and the stories are retold to reach a wider audience. The world of the movie is brought up to date with the latest trends of popular culture and enacted by currently popular actors. The effects are the best the budget and current technology will allow. Without exception among the movies I viewed for this project, the remake of a movie is more. It is more offensive, has more graphic visual elements, more audio stimuli, more sex, more violence, more gore, more detail. In most cases, this "more" makes the movie less. It is less interesting and, unfortunately, less frightening. This can be because giving too much detail is insulting, as they say among the Western Apache.[4] The American audience of a narrative may not consider it an insult to receive huge amounts of detail, but they are often disappointed by the horror movie that gives too much. A large part of the terror of a good horror film is what the audience makes up in their own minds, what they think they see, and how they fill in the blanks for explanation and reasoning. This idea shows up repeatedly in the interviews I conducted, with the idea of the "psychological" element being the most frightening. Few people said that gore is what truly scared them although they might be admittedly disturbed by it. As the Western Apache informants told Basso, the imaginative capabilities of the audience are stunted when a story has too much detail, "blocking their thinking," or "holding down their minds."[5] This is why the remakes of horror films are often less frightening, even with more gore and better effects.

> Here Evans states her **thesis**, which she will support with **evidence** from the films and their remakes.

> Evans provides her references in **Chicago style footnotes,** which allows readers to identify sources without interrupting the text.

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[2] Survey, subject 8.
[3] Ochs and Capps 21.
[4] Keith H. Basso, *Wisdom Sits in Places* (Albuquerque: University of New Mexico Press, 2000) 85.
[5] Basso 85.

The audience is no longer allowed to make up their own subtext or interpret freely the presented material. The interpretation is often given clearly and without alternative, leaving few details to the imagination.

The impact of this idea closely parallels the impact of the application of Bakhtin's dialogue. The dialogue Bakhtin presents is between three parties: the teller, the audience and another who has already "used the worlds employed," in this case including the images and sounds used.[6] In this theory, all three parties have a voice in the telling of the story. The narrator obviously has chosen what story to tell, and the audience has a part in the telling because they evaluate and respond to what they are being told. The "other" has a voice because the information given is necessarily given through the filter of the meanings with which he or she already imbued the words. The author of a story must recognize these other voices and respect them, leaving them room to speak for themselves.

Evans **makes connections and synthesizes her sources**. Here, she introduces the work of Mikhail Bakhtin, a famous Russian **theorist** who has been particularly influential in literary criticism and semiotics— the study of signs and symbol systems.

The opposite of dialogue is a monologue. In this case, the teller speaks to an audience that "remains wholly and merely an *object* of consciousness, and not another consciousness."[7] This person, like the person giving too much detail to the Western Apache, does not respect that his audience will create their own telling of the story, evaluating what he has said and changing it to make sense and be more effective to themselves. This is crucial in a horror film because each person is most afraid of a different aspect of the story. If the teller of a story tells the audience they should be afraid of only one idea or aspect present (overshadowing other possibilities), the person who does not carry the appropriate fear will not be afraid. If the telling is more open, more of the audience will find something to be afraid of. They do want to be afraid; after all, it is a horror movie they have chosen to see. A monologue tries to be Truth, leaving no room for other possibilities, and in doing so closes the book on the story told. Monologue "closes down the represented world and represented persons."[8] This is especially detrimental to a horror film where the effectiveness is measured in terror and a good part of the fear is the idea that the story presented might be real; that one could meet the characters, go to that terrifying place, or be otherwise affected by the events shown, or at the very least, similar ones.

After defining her **interpretive lens**, Evans begins to **apply** the lens to specific films by using the narrative and Apache theory discussed above. By starting with "The first film I will apply these ideas to," Evans again forecasts that she will analyze multiple movies.

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[6] Rosemary A. Joyce with Robert W. Preucel, Jeanne Lopiparo, Carolyn Guyer, and Michale Joyce, *The Languages of Archaeology* (Padstow, Cornwall : Blackwell Publishers, 2002) 8.
[7] Joyce, et al 9.
[8] Joyce, et al 9.

The first film I will apply these ideas to is the remake of *The Texas Chainsaw Massacre*.[9] It was made to update the movie, and make it more accessible to the current generation. When the producers did this, they took the original film and changed the storyline in order to add effects (mostly gore) and to change some character and plot elements.[10] Most of my informants who mentioned having seen the remake mentioned it as having lots of "shock value" and saying that it "went too far."[11] The filmmakers made the movie more in keeping with current trends: it is faster moving, the heroine "saves the day" (in a sense), and there is sex (although there are no sex scenes, the fact that the characters do have sex with each other is directly implied with scenes of making out and explicit references in the dialogue, instead of a wink and a nod as in the original). The original movie has many long, tension-building scenes where nothing happens and all is quiet, even after the first murders have occurred. In the original, the audience waits for something to happen. The remake allows no waiting. There is almost constant dialogue until the first death occurs—in front of all the young characters. Even in the scenes where the audience and the protagonists are waiting for something to happen, the protagonists talk or move to fill the space. All this movement and talk in the newer version give the audience something to think about other than when something might happen, and what it will be when it does.

The original film in this case is a slasher. There is never much to it except for gore, and the motives of the enemies are not present. In the addition of so much detail and so many explanations, the writers of the remake do well by adding in some ambiguity. The cast of characters is broadened. Instead of the killer, Leatherface, living with his father, brother and grandfather, as in the original, the people involved are now Leatherface, the sheriff, the grandfather, two women, and a young boy. This widens the possible source of fear. Not only do you have to worry about a crazy man with a chainsaw, but it becomes a conspiracy. A whole town (as small as it may be) is out to kill whoever stops on the way through. In addition, a whole new set of frightening thoughts is present to work with. Also added is a possible interpretation of a feminist attitude, in spite of the main character remaining a sex object as a result of her wearing a wet, white tank top. The main character in the remake, as played by actress Jessica Biel, gets away and keeps her wits, stealing away with a baby the townspeople had kidnapped, and running over the sheriff several times, killing him. In the original, the main character laughs

> Here Evans begins an **organizational pattern** that she will follow in discussing the next movie as well. She begins with a **description** of the remake and comparison to the original. Note how she blends her **evaluation** of each film into the **summaries** and **descriptions**. Then, she **interprets** the film in light of Apache and Bakhtinian narrative theory.

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[9] *The Texas Chainsaw Massacre*, dir. Tobe Hooper, 1974, DVD, Pioneer Entertainment, 2003.
[10] *The Texas Chainsaw Massacre*, dir. Marcus Nispel, 2003, DVD, New Line Home Entertainment, Inc., 2004.
[11] Survey, subjects 3 and 4.

hysterically from the back of a pickup truck that drives her off to safety. As a quick summary, although much more detail is given, the movie is updated to include current attitudes and leaves some room for interpretation, making the movie not much less upsetting than the first.

The 1999 remake, *The Haunting*, is a film originally based on the novel *The Haunting of Hill House* by Shirley Jackson.[12] The original film, also based on the book, was made over three decades earlier in 1963.[13] The remake makes no mention of the original movie anywhere in its liner notes, on the box, or in the "behind the scenes" documentary, which lists a number of other older horror films. The producers mention wanting to make a "psychologically based" and "character driven" movie.[14] This is interesting considering the abundant special effects used in the depiction of scenes in which the house itself moves and attacks the characters. Another digitally added treat is the number of ghosts one sees in detail—to the point of seeing their faces. Upon watching the remake, it seems to be a movie driven by special effects and grandiose sets. Susan Arnold, one of the producers, says that, "the scariest thing is what you don't see."[15] Ironically, she is in agreement with what my informants say, that the psychological component of horror is what frightens people, and then she makes a movie that virtually leaves nothing to the imagination.

> Here Evans draws on **secondary material**—producer commentary and survey information—to make a point about the monologic narrative of *The Haunting*.

The original *The Haunting* leaves everything to the imagination. If the viewer doesn't pay attention and get into the film early on while viewing, he or she would be very bored. The only physical threats shown in this movie are a doorknob slowly turning, as if the door will open, and a wall bowing out towards the company in the parlor. The aforementioned scene with the doorknob is scary because the viewer knows that no person is on the other side of that door. The viewer also understands the door doesn't open even though it is unlocked. The film never reveals what force turns the knob or makes the wall bend. In addition, the storyline in this movie is simple. The house was "born bad" and several women have died there under suspicious circumstances. At the end of the movie, the house has claimed another life, and it is still standing, and still "bad."[16] The viewer gets to fill in what more happened there, whether it was the house or the husband who killed the women and what caused the house to be "bad." A lot of scenes have only silence in the background, leaving you to fill in any noises in your head or explain away the occurrences. Plus, the house works on the mind of the

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[12] *The Haunting*, dir. Jan de Bont, 1999, DVD, DreamWorks Home Entertainment, 2002.

[13] *The Haunting*, dir. Robert Wise, 1963, DVD, Warner Home Video, Inc., 2003.

[14] Ted Nicoloau, dir., *Behind the Scenes Feature: The Haunting*, DVD, DreamWorks Home Entertainment, 2002.

[15] Nicoloau.

[16] Wise.

character of Eleanor, the one it wants. There is never any proof that she does not kill herself of her own accord, or that she is not schizophrenic.

The second version is drastically different. Early on in the movie, the physical threat is made clear and immediate. In the scene equivalent to the original's with the banging noise and slowly turning knob on the unlocked door, the banging rattles the doors, almost breaking the locks holding them closed.[17] There is little doubt that whatever it is would have come in if the door had not been locked. In the remake, it is not the house itself that is bad; it is the spirit of the man who built it. Great detail is used in painting Hugh Craine (the man who built and lived in the house) as an evil man, who without a doubt killed many of the children who worked in his textile mills and then trapped their spirits in his house.[18] In the film, the ghosts of the children tell their story to Eleanor, one of the house visitors. Meanwhile, Eleanor turns out to be a descendant of Craine, and as such is the only one who can set these children free.[19] That is the reason, missing in the first film, why the house wants her. At the end of the movie, Eleanor dies, yes, but she dies a martyr by sending Craine's soul to Hell and freeing the ghosts of the children directly in front of the other characters. The evil has been explained— and removed.

In the remake of *The Haunting*, the Bakhtinian dialogue has been shut down. The tellers of the story attempt a monologic narrative. There is no respect towards the first filmic telling of the story. There is not any mention of it. The idea of putting this story on film is presented as original and without precedent, and yet blocking of the actors in some scenes and even the physical aspect of some of the characters is very similar to the first. This is disrespectful to those who made the original movie—it shuts them out of the narrative. As far as the third member of the dialogue, the audience, is concerned, it is afforded very little respect. The viewer is left unable to influence what has been presented, as nothing is left to interpretation. The viewer is along for the ride, and when the movie ends, the ride is over. There is nothing to think about once the movie is over. There are no events one can wonder about or meanings to question. There is nothing left to fear. With this movie, the teller has insulted his audience, as the Western Apache would say.[20]

> Evans shifts from summary, description, and evaluation to a more explicit application of her interpretive lens.

The Japanese film *Ringu*[21] has also been remade by American studios into *The Ring*.[22] In contrast to the previous two movies discussed, this was not an

> Note that in this paragraph Evans discusses the original first, then the remake, in contrast to the pattern used in comparing the three other films. Do you think this is intentional?

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[17] de Bont.
[18] de Bont.
[19] de Bont.
[20] Basso 85.
[21] *Ringu*, dir. Hideo Nakata, 1998, DVD, DreamWorks Home Entertainment, 2003.
[22] *The Ring*, dir. Gore Verbinski, 2002, DreamWorks Home Entertainment, 2003.

attempt to update a story previously told in movies. This was made to Americanize a contemporary foreign film that had already seen large international success. It was made to reach the large portions of the population who find movies with subtitles inaccessible, or at the very least, unappealing. In the original movie, the issues of teen sex and single parenting are explored, and in the remake the same situations are mirrored with only slight alterations. One of these changes is in the relationship between the mother and her son. In the Japanese version, the young boy spends most of his day at home without supervision, fixing his own meals and helping his mother in various ways. In one scene, he prepares her outfit for a funeral they are going to. In the American version, he helps his mother by preparing outfits, and she shows up late to pick him up from school when she loses her baby-sitter, but she has a baby-sitter for him. Unfortunately that sitter is one of the young people claimed by the killer. Thus she remains mostly absent, but what might be seen as neglect by an American audience is averted.

Another example of these changes in the remake is the killer reaching out from the other side. She is a different kind of illegitimate daughter. In *Ringu*, she is the daughter of a professor and his test subject/partner. The mother has extra-sensory perception capabilities, and her daughter is able to kill just by thinking or wishing it.[23] In *The Ring*, she is the daughter of a married couple, but under strange circumstances. The couple tries for years to get pregnant, but never can. One year, they go on vacation, and when they return the wife is pregnant.[24] Nothing more than that is told. The audience is left to make up why this is an ominous occurrence explaining the strangeness of the child. This evil in the daughter is expressed differently in the movies as well. In the Japanese original, the daughter kills a man who ridicules her mother by way of her own thoughts and runs away while her mother chases her, accusing her of murder. In the American version, there are the mysterious and repeated deaths, at sea, of horses. The only implication of the girl's guilt is the continued occurrence of the deaths coinciding with her presence on the island.

The Ring still doesn't escape the trend of adding more to the film. The victims are more disgusting after their deaths, taking on a greenish hue that implies instant decomposition. There is blood that does not appear in the first: the victims get bloody noses before they die, and the sea turns bloody in the scene where a horse goes crazy and jumps off a ferry, getting hit by the watercraft's propeller under the water.[25] This last scene was twice mentioned in the interviews, indicating that violence toward horses disturbed American audiences, while not insulting them

> Evans is able to **identify a trend by analyzing** multiple remakes, just as Bishop identified trends in traditional and contemporary zombie movies.

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[23] Nakata.

[24] Verbinski.

[25] Verbinski.

too much.[26] In *The Ring*, length is added to the video the victims see before they die. The detail added in this is never explained away any more than in the original movie and simply adds more disturbing and disgusting images. In this second movie, the dialogue between the narrator and the audience is kept open with the viewer's imagination being required to fill in many details. Not surprisingly, seven of thirteen respondents mentioned *The Ring* or scenes from it as being very disturbing or frightening. It was also the only movie I watched for this study that I couldn't say felt contrived or forced, but rather like a well-made original film.

I left the discussion of *Psycho* for the last because it is the most different type of remake. Director Gus Van Sant chose to remake Hitchcock's original by leaving the story unaltered and modernizing it instead.[27] It uses the same script as the original with only minor changes.[28] One of these is the amount of money the main character and first murder victim, Marion, steals. It is increased to match inflation, so that the ramifications of the theft are equal and so it makes sense within the time period of the story. Another change is obvious product placement. In a scene towards the end of the remake in which Marion's sister goes to find the sheriff, a line is changed so that she is no longer asking for a moment to get her coat, but instead to get her Walkman. The former change is helpful in the modernization of the performance; the latter is painful. It does not make sense. Why would a woman worried for the lives of her sister and the man who had been helping her find her sister pause to get a Walkman?

> In discussing each film, Evans notes **similarities** and **anomalies** between the specific **example** and the **genre**. Her transition also explains why she discussed the four films in this particular order.

Another problem with the remake of Hitchcock's *Psycho* is that the lines do not fit with the year 1998, and the actors do not deliver them naturally. Much of the dialogue is delivered in a stilted, wooden fashion. One major exception is actor William H. Macy as the detective. Although his delivery is natural, he comes off as a man out of 1960 stuck in the late 1990s. Thus, as good as his performance is, he still doesn't fit. In addition to the time period not fitting the dialogue and in spite of the fact it is a frame-by-frame remake, the director adds, as one of my informants puts it, "things that don't need to be there."[29] In the famous scene in which killer Norman Bates watches Marion undress, we now hear him unbuckle his belt, unzip his fly, and masturbate, complete with slapping noises and movement in his shoulder.[30] The additions do not add to the story or effectively update it. Any viewer could guess that Norman might masturbate after watching her—the sexual connection is obvious even though it is only implied. It is not necessary for this action to be shown for us to know that he is attracted to

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[26] Survey, subject 3.

[27] *Psycho*, dir. Gus Van Sant, 1998, VHS, Universal Studios, 1999.

[28] *Psycho*, dir. Alfred Hitchcock, 1960, DVD, Universal Studios, 1999.

[29] Survey, subject 6.

[30] Van Sant.

Marion. In the end, seeing the movie feels like watching events of the past enacted by people in the present with current ideas of what is acceptable in a movie, and that is just what it is.

The reasons for remaking this movie are unclear, although it seems to be a tribute of sorts to Alfred Hitchcock. The original version remained popular and well known without any changes. The director makes an attempt not to change the movie by using the same script, and only adding small bits. The outcome is that the *Psycho* remake fails to work, which can be seen in the fact that the original is easy to find, while it is difficult to find the remake in retail or rental stores, as well as libraries. The story, or at least the lines, must be changed to reflect current society if one is to retell a story of the past and locate it in the present. Once again, the dialogue is not functioning properly. The story no longer reaches out to the audience because the audience knows that people in this day and age would respond differently to the situations with which they are presented. The director, in an attempt not to remove the popular parts of the movie, has overlooked this and in so doing has not given his audience credit for being able to evaluate what he is presenting. Thus, the audience critiques the movie and finds that it is less suspenseful or interesting because they are distracted from the story by its delivery.

In looking at the remakes of popular horror movies and talking to a small portion of the audience, I have affirmed that horror movies are remade in an attempt to update or Americanize popular tales. If the updated version is to be successful, it must respect earlier versions and the methods those directors used to frighten audiences and still make what changes are necessary to reach modern audiences. *Psycho* failed because it did not make changes that touch modern audiences. *The Haunting* failed because it did not respect the previous version. A measure of success was achieved by *The Texas Chainsaw Massacre* because it reached out to the modern audience and still respected the original version. *The Ring* was successful because it was both faithful to the original movie, taking scenes almost line for line (albeit translated), and still made changes so that an American audience would care about the characters just as much and understand them as well, relating to them and putting themselves in the same situations. Taking into account the perception of the audience of a film is what makes or breaks the retelling of a story.

> Here Evans restates her general thesis before recapping how the evaluative criteria apply to each film.

> For academic writing that uses qualitative or quantitative research, it is common to mention the **limitations** of the study as well as its **significance in the conclusion**.

Although a more thorough investigation would yield more complete results, this research has provided insight into how the telling of horror films effects the way they are received. It is not just the content of the narrative that reaches people; it is the way the narrative is conveyed and the way audiences are included in the telling that makes films culturally salient. An approach such as this one that includes looking at both the narrative as a text

> This serves as a general "**suggestion for future research**."

and the people who are involved is a valid approach to understanding the complex nature of narrative within culture. Anthropology should investigate all kinds of narratives as parts of the functioning of culture, even those of the mass media. Without the stories we tell, we have no way to affirm who we are and why we do what we do.

Figure 1: The questions as sent out in the survey.

> Do you watch horror movies? Why or why not?
> What was the first one you saw? Can you tell me the story?
> What was the scariest you have seen? Why?
> What was your favorite? Why?
> Is there any particular story or scene you can't forget? Why?
> Have you seen any of the movies that have been remade?
>   What did you think?

> Presenting the survey questions as a "figure" at the end of the article is somewhat unconventional. As we will discuss in Chapters 4 and 5, authors often include research instruments and/or raw data in appendices.

Students as Scholars Reading Questions

1. What interpretive lenses and filters does Evans use in her examination of horror films? How does her interpretive lens and filter affect her definition of a successful remake? How effectively does Evans establish her interpretive lens and make connections to it in her discussion of each film?

2. What other interpretive lenses could you use to "read" or interpret remakes of horror films?

3. In addition to her text-based interpretation, Evans includes a survey of horror movie viewers. What is the effect of including this data? How does Evans use audience response to support her own reading?

4. Evans frequently uses a point-illustration-explanation strategy for paragraph development. How many of these paragraphs can you locate? Which ones are strongest and weakest? Why?

5. Look back at the organizational patterns discussed on pages 30-31 of the textbook and see if you can locate any other organizational patterns. Why do you think these organizational patterns are used? How do they better support Evans' thesis?

6. Evans makes comparisons between the original and remake of each film as well as among the adaptations. Locate an effective comparison in the article.

What sentence structures and transitional phrases help the reader follow Evans' analysis?

7. Reread the last two paragraphs. What common concluding moves do they accomplish? Do you find the conclusion effective? Why or why not?

Popular Example

Comin' to Getcha

Mike D'Angelo
Esquire Magazine

> Mike D'Angelo is a film critic for *Esquire Magazine* and maintains *The Man Who Viewed Too Much*, a website that provides film reviews, links, and "semi-regular (to put it politely) cinematic musings of a man who should know better than to squander his valuable time in this manner at all." He has also written for *Entertainment Weekly* and *Time Out New York*. *Esquire* is a men's magazine that covers fashion, health, entertainment, technology, and financial matters. According to their media kit, *Esquire* targets "affluent, educated, and successful professionals."

The latest Japanese import? Pure, unadulterated fear.

> This first line is called a **lead** or "**hook**" in popular journalistic writing. It is meant to instantly grab the reader's attention. It also acts as a type of thesis, forecasting D'Angelo's argument.

THE MOST TERRIFYING MOMENT I've ever experienced in a movie theater happened four years ago, at the Toronto Film Festival, roughly half an hour into a Japanese picture called Pulse. Like most Japanese horror films of the past century, *Pulse* is a ghost story, and like much recent "J-horror" (as the genre has come to be known to U. S. film buffs), it's predicated on a fear of modern technology, with a plot involving a haunted Web site. The scene that got the hair on my forearms and the back of my neck doing the wave, however, is decidedly low tech. It's also peculiarly Japanese in that it achieves its effect not by being overtly threatening but by being almost completely inexplicable.

> D'Angelo opens by discussing his personal reaction to a horror film and using humor. This conversational style is appropriate for popular articles, as it effectively keeps the attention of the audience, but it would not be acceptable in most academic writing.

In this scene, a young man enters a "forbidden" room—one of several in the film that's been pointedly sealed off with bright-red duct tape—and finds it empty. After a moment, the figure of a young woman materializes across the room and walks slowly toward him. And that's it, basically—her advance, his retreat, amplified by some eerie music and lighting. What's bloodcurdling about the encounter isn't our knowledge that the woman is a ghost, nor is it any murderous intent visible in her

features; if anything, she just looks curious. No, what's frightening is the woozy, unearthly deliberateness of her gait, and in particular the way her progress is chillingly interrupted at one point by a hitch in her step—an abrupt loss of motor control that metamorphoses into something like a Kabuki dance step. Think about it for a moment: When was the last time you saw a movie's relentless force of evil stumble in mid-stalk?

American horror movies, whatever their other merits, virtually never inspire that sense of uncertainty, the unnerving feeling that rationality is a luxury we can no longer afford. Which is odd, because most of the horror movies coming out of Hollywood these days are slavishly faithful remakes of J-horror classics. The phenomenon was kick-started three years ago by the success of *The Ring*, inspired by Hideo Nakata's *Ringu*; this month sees the release of the inevitable *Ring Two*, loosely based on the original's sequel. Last Halloween's sleeper sensation, *The Grudge*, is virtually a scene-by-scene reconstruction of a film called *Ju-On,* right down to the design of the creepy house in which most of the action takes place. Another Nakata remake, *Dark Water*, arrives in multiplexes this August, with Jennifer Connelly in the lead role. Even *Pulse*, far and away the artiest and least accessible of these films, was snapped up by Dimension, which planned a version starring Kirsten Dunst and directed by Wes Craven, though the project was ultimately shelved.

Critical tradition demands that I now dismiss the popular Hollywood films as refuse—shoddy, opportunistic replicas that pale beside their Japanese counterparts. But fuck critical tradition. The spooky inexplicability of the originals does invariably wind up lost in translation, and that's a shame. But the American versions have corresponding strengths of their own. *The Ring*, for example, is a much better film than *Ringu*, though both suffer from the same dopey, antisuspenseful premise, in which you're given one week *to* live after viewing the killer videocassette. Granted, that isn't a cheery proposition, but if the audience knows that nothing terrible is going *to* happen until day seven, a title card that reads DAY THREE isn't especially ominous. It's as if a serial-killer movie were to open with the madman calling his victim long-distance and announcing his intention of wreaking some seriously bloody mayhem...just as soon as he finishes the long cross-country drive *to* the victim's house. And then were *to* keep calling in periodically en route with updates. ("In Des Moines now, little truck

D'Angelo briefly **describes** the scary scene, giving the **details** that led to his fear; then, he offers an **analysis** of why this scene made him afraid. He does not summarize the entire movie—just this relevant scene. In most humanities writing, you will want to do the same thing—**only summarize the parts of a text that are pertinent to your analysis**. However, this summary is important because it acts as support for D'Angelo's interpretation.

This is often called a "nut graf" in popular journalistic writing. It is designed to describe what the article is about after the author has hooked you with the lead. Here, D'Angelo makes a claim and then provides several examples to support it.

D'Angelo notes that critics usually pan American horror films, but his flippant dismissal of that argument, while fine for his *Esquire* audience, would be completely inappropriate in an academic article. In an academic article, he would carefully refute at least one or two theorists that make this claim that popular Hollywood films are "shoddy."

This humorous hypothetical is simultaneously a digression and a commentary on a key feature of most horror films—the element of surprise.

stop just off I-80. Decent burgers, wretched coffee. Still comin' to getcha....")

BUT I DIGRESS, just like the movie. What keeps *The Ring* watchable, even during the long stretches when nothing terribly scary is happening, is the commitment that Naomi Watts brings to the main character, investigative reporter Rachel Keller. The first time we see Rachel, she arrives to pick up her young son at school, where the boy's concerned teacher launches into an impromptu conference. Ms. Compassion offers Rachel a chair; Rachel promptly takes a seat on the desk, towering over her inquisitor, one leg and ass cheek already overboard, ready to bolt at any moment. This single gesture conveys more about the woman who makes it than we learn about *Ringu's* bland heroine over the course of the entire film.

> This passage concisely develops another **contrast** between the American and Japanese films.

Indeed, J-horror films in general tend to be heavy on atmosphere and light on character. When I heard that Sarah Michelle Gellar was to star in *The Grudge*, I couldn't for the life of me figure out which character she would play, since *Ju-On* is little more than an abstract procession of faceless victims, not one of whom even remotely resembles a protagonist. In this instance, however, the remake was entrusted to the director of the original, Takashi Shimizu, who struggles to retain *Ju-On's* experimental piecemeal structure while also providing the identification figure that American audiences allegedly demand. Gellar disappears for a while, in keeping with the original film's scrambled chronology and sense of random foreboding, but she ultimately reemerges with a boyfriend to save and a mystery *to* solve—conventional elements in which Shimizu all too clearly has zero interest. The result is a genre effort that's half Japanese, half American, and entirely muddled. If we're going to Hollywood these movies up—and the evidence so far suggests that we should—half measures are the worst possible approach.

> D'Angelo demonstrates an understanding of how **cultural context** influences film-making and forwards an argument based on his knowledge of film from both cultures.

Still, it's worth making an effort to remain true to the aspects of the genre that made J-horror worthy of our attention in the first place, even if that entails frustrating the doggedly literal-minded. That means preserving the essential strangeness that makes the Japanese films, despite their willful absence of psychology and their stubborn reliance on the power of suggestion, so incredibly creepy. Take the killer video in *Ringu*: Most of its images are disturbing precisely because they connote nothing in particular, whereas the (much longer) version in *The Ring* is chockablock with clues pointing *to* the tragedy that inspired it. The more the video is explained, rationalized, freakin' annotated, the less frightening it (and the movie) becomes.

> Throughout the article, D'Angelo juxtaposes formal and informal language and ideas; this style is appropriate for his **popular but educated audience**.

> Note the **attention to detail**; this kind of **close reading** is important in text-based research.

Likewise, where *The Ring* slathers its climactic coaxial ghoul in ooga-booga makeup, all we see of the ghost girl's face in *Ringu* is a single accusing eye, terrifying because it looks so profoundly wrong. And if you have the nerve to freeze-frame the shot (*Ringu* is readily available on DVD, as is *Ju-On*; you can find *Pulse* and the original *Dark Water* for sale online if you dig around a bit), you'll discover why it looks so bizarre: The eye is upside-down. A simple, surrealistic effect—perhaps all they did was place the fright wig on the actress's chin instead of her skull—but the cognitive dissonance it produces is far more potent than the generic zombie approach, all mottled flesh and gnashing teeth.

We've seen rotting corpses before; they're familiar and, hence, in a weird way, comforting. If you really want audiences cowering beneath their seats, stop making sense.

> D'Angelo ends with a succinct **restatement of his thesis** and comment on our cultural reaction to these films. As with most "**kickers**," or conclusions in popular journalistic writing, he is also looping back to his lead, in this case, fear.

Popular Example Reading Questions

1. Who is the audience for this article? How do you know that this is the audience? What is the article's purpose? Does the article effectively achieve its purpose with its intended audience? Why or why not?

2. D'Angelo begins his piece with a personal reaction. What is the effect of this conversational beginning? What else does D'Angelo accomplish in his introduction?

3. Evans applies existing theories to horror films, while D'Angelo uses several films to generate a new theory about why they are scary. What is D'Angelo's theory? How does it arise from his analysis?

4. What are the most effective descriptive passages in the article? Why? Because popular articles tend to be much shorter than academic articles, choosing the right details and descriptions is even more important. How does D'Angelo achieve the purpose of adding details and descriptions within the concise format of a magazine article?

5. What role does humor play in D'Angelo's article? Locate phrases or passages that you find entertaining or think his readers would find funny. Why do they work given the topic and audience?

Combined Reading Questions

1. Bishop and D'Angelo are writing for very different audiences. What are some of the differences between their target readers and publications? How do these differences affect the content, organization, and style of their writing? What changes would Bishop need to make to his article if he wanted to publish it in a popular men's magazine? What changes would D'Angelo have to make if he was writing for an academic forum like the *Journal of Popular Film and Television*?

2. Even though the three articles printed above vary in scope, interpretive lens, and audience, they all employ several of the same strategies for text-based research. What can you deduce about important conventions of the text-based research tradition from these articles?

3. The authors mention generally negative critical attitudes toward horror films. Why do they do this? Why do you think those negative attitudes exist? Do you think horror films are a valid subject for an academic research project?

Text-Based Case

Context-directed Interpretation of Pop Culture Artifacts

1. **Visit the Authentic History Center: Primary Sources from American Popular Culture at <http://www.authentichistory.com>. Historian Michael Shawn Barnes has compiled a multi-media collection organized by time period and topic. There are several options for analyzing and writing about items in this collection.**

2. **Choose a decade or event category. Study the images, audio files, and or videos provided. What can you deduce about American values and concerns at the time based on the collection of popular artifacts?**

3. **Examine the collections pertaining to Pearl Harbor and the 9/11 Attacks. How were the poplar reactions to these events similar? How were they different? What do you think the comparison says about our culture?**

4. **Choose one of the groups represented in the section on Teaching Diversity with Multimedia. What stereotypes are represented? How do they reflect the historical and/or cultural contexts that produced them? Do you find them offensive? Why? Can you locate similar representations in contemporary popular culture?**

Text-based Activities and Projects

1) *Archival research* – Using primary source documents for information, choose some aspect of your school's history to investigate and write about by visiting the school's archives or reading old campus newspapers. Combine these primary sources with other primary or secondary textual sources to draw conclusions about campus culture at that point in history.

2) *Textual Synthesis* – Find multiple sources of information about a specific topic or event—newspapers, archives, books, television shows, and other objects—and create a composite interpretation of this phenomenon. Explain how and why different media offer different representations of your object of study.

3) *Understanding Texts in Context* – Consider how one or more contexts of a text's creation or cultural use shape the text's meaning. One example would be to interpret a song within particular contexts (hint: your favorite new mp3 might not be the best choice). To do this, find multiple sources about the song. For instance, find out how the song has been used in movies, television shows, or advertisements; find any interviews with the musician(s) about the song; if the song makes any reference to a person, places, or historical events, find credible magazine or journal articles about this reference. Use your new understanding of these contexts to write an essay about the song's meaning or cultural significance.

4) *Analyzing Genre Patterns* – Each of the articles about horror films reprinted in this chapter discusses some conventions of the genre. In fact, horror plots and techniques are so predictable that they are often parodied. The web site http://www.dodgethekills.com spoofs scary movies by providing webisodes about how to survive horror films. There are also many lists of varying quality about how to survive slasher films, such as http://literaryunderworld.blogspot, com/2005/10/how-to-survive-horror-movie.html, and http://www.geocities.com/dreamyemmy16/rulestosurvive.html, that make fun of the formulaic nature of these movies. (If you browse several, you will no doubt notice that some websites do not follow the rules for borrowing source materials that we discussed in Chapter 3.) Choose a film genre of your own—chick flicks, action movies, film noir, etc.—and analyze several examples for common themes, plot devices, stock characters, effects, etc. Write an academic article or popular web-list to share your findings.

5) *Remake Analysis* – In the last decade, cinematic remakes have become increasingly common in Hollywood. Kyle Bishop and Jaqueline Evans wrote about remakes that update older horror films, while Mike D'Angelo discussed remakes of Japanese films for American audiences. Select a relatively recent

movie that is a remake of an older version and watch both films. Write an essay in which you compare the two versions and interpret the significance of similarities and differences given the times in which they were produced.

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Chapter 7

Qualitative Research: Interpreting Observations and Interviews

What is Qualitative Research?

Imagine that you are at a party on a Saturday night. There are a lot of people, some you know, others you don't, weaving through the crowds as music blasts in the background. At the party, you hear complaints that the guys and girls at the party are not really interacting that much. The guys are clustered around activities like Guitar Hero, darts, and pool while the girls are in groups talking together. You wonder if this is true, so you look around to see if this is actually the case. You also ask more of your friends about it to see if they have noticed the same thing and why they think this happens. Most agree that they usually expect this to happen at parties. Some give reasons for this difference between how boys and girls act at parties such as guys are more competitive, girls just like to gossip, or the guys act like jerks when they play so the girls don't like playing with them. After hearing several of these explanations from your friends, you can't help observing the girls' and boys' behavior more closely to see if these reasons are true. Do girls just gossip when they talk to each other or is this an erroneous stereotype most of the time? Are guys really more competitive than girls? Are guys really that rude to the girls who play against them or is this also an erroneous stereotype?

Believe it or not, you are now informally engaged in qualitative research at this party. **Qualitative research** is concerned with observing and interviewing people to learn about their social and cultural context, recording as much **descriptive detail** in the process as possible. In fact, where **quantitative research is numerical**, **qualitative research is descriptive**. By studying people in their natural contexts, qualitative research tries to understand more about how specific cultures shape how and why people do things. In the previous example, you were observing the social phenomenon of how the guys and girls interacted in their natural context of the party. You then interviewed your friends to find out more about why this social phenomenon occurred. And then, after hearing their responses, you relied on a more focused observation to see if the reasons they gave you actually happened.

In qualitative research, culture can be defined broadly as someone's national or ethnic culture, such as the cultures of Samoans or Cherokee Native Americans. Because larger ethnic cultures are so complex, qualitative researchers will spend many years immersed within that culture before they even begin to gain an understanding of it. For instance, pioneering anthropologist Margret Mead spent years in Samoa studying the Samoan culture through observation and interviews.

However, culture can also be defined in smaller ways as a subculture. A subculture is a group of people who are part of a larger ethnic or national culture but who are also joined together by a specific place and set of social practices—a set of activities and rules for those activities. In this way, almost any group of people can be identified as a subculture. A subculture could be a group of skaters, fraternity brothers, or bus commuters. You are already part of many

subcultures. By attending a college or university, you become part of that subculture. Your writing class will also form its own subculture and create its own rules for behavior and other social practices within the class. Some of these social rules will be the same as your other college classes, but others may be quite different and unique to your writing class. Just by being in the class and participating—reading the syllabus, listening to class discussion and asking questions, and talking individually to your teacher and classmates—you will undoubtedly learn the social rules of the class and how to perform the activities involved in finishing your assignments and participating in class. Because subcultures are smaller, it is not always necessary for researchers to spend as much time studying them as they would if they were studying an entire ethnic culture. However, researchers will often still spend several years studying a subculture, especially if it is a fairly large subculture. For instance, researchers might spend several years immersed within a specific skater culture before they feel they can begin to really know it.

Qualitative research is also concerned with studying social systems, such as a school, a prison, or a family, to understand how that social system works and how it shapes the people within it. For example, a researcher could use qualitative methods to examine how and why violence occurs within prisons. Also, the social system of the college or a university you attend shapes you in various ways—where you live, how you live, how you study, where you study, who you can socially interact with, etc.

Why Do Qualitative Research?

Because qualitative research provides a level of descriptive detail and depth that is impossible to achieve with other types of research, it is the best form of research for studying ***how*** and ***why*** individuals interact within social contexts. While quantitative research is good at generalizing about large groups, qualitative research is concerned with the many deep layers of detail about a small group. For instance, quantitative surveys can easily be distributed to hundreds, possibly thousands, of people, and they can get at some self-reported motivations for why people do things within certain social contexts; however, surveys are unable to accurately examine how these individuals actually interact within the social contexts they describe. Qualitative research often generates a large amount of data as well, but instead of numbers researchers may gather hundreds, possibly thousands, of pages of detailed observation and interview notes. Furthermore, to study a social context fully, researchers often must observe for a long time. Margaret Mead spent many years in Samoa amassing many hundreds of pages of observation and interview notes. Of course, the more focused and shorter term qualitative projects you will be responsible for can also provide valuable insights about specific subcultures and practices.

When deciding whether or not to conduct qualitative research, consider your audience and purpose. Will your audience be more persuaded by the numerical information that quantitative research can provide, or will your audience be more persuaded by the nuanced, in-depth, descriptive detail and analysis of specifics that qualitative research can provide? In educational

research for example, administrators are primarily interested in quantitative, numerical data with breadth because they are interested in how the whole system of the university works. However, teachers are usually most interested in examining learning in context and examining its complex subtleties so that they can better teach individual students. For this reason, teachers often turn to the specific detail that qualitative research provides, even though this research may only cover one class or a few students in depth. In other words, in deciding whether to conduct qualitative research, figure out first if your audience would be more persuaded by the breadth of the big picture and how everything works together as a whole that quantitative research provides or whether your audience would be more persuaded by examining how the individual parts work within the details of the smaller picture that qualitative research provides.

Discussion and Practice

1) Imagine that you have a free round-trip ticket and $3000 to take a one week vacation to London. You are trying to research the best hotel to stay at for seven nights. (Don't forget to calculate food and other necessities into your budget.) Go online and look and find the best places to stay on your budget.
   a. What online hotel information was most helpful in finding out the best hotel for you to stay at? Was the most helpful information qualitative, quantitative, or both? Why?
2) Make a list of the many subcultures that you belong to. These can be larger groups such as gender, age or education, but also smaller groups such as specific hobbies or interests. If a researcher were studying how two or three of these subcultures overlap, what could qualitative research capture that quantitative or text-based research couldn't? Why?

What are the Advantages and Disadvantages of Qualitative Research?

The level of descriptive detail needed in qualitative research means that it tends to be quite specific. Most qualitative research will only study one particular social scene within a subculture in depth—one local group of skaters, one particular class, one fraternity, etc. In other words, to acquire this level of detail through observations and interviews, it is often impossible to study more than a small number of specific cultural settings or social scenes at a time. Unfortunately, this also means that it is impossible to accurately generalize what is learned about one cultural setting to another cultural setting. For example, if a qualitative researcher only observes one classroom to find out why students do not turn in work, it is impossible for her to generalize what she has learned about that classroom to all other classrooms because their social contexts might be quite different; the reasons students have for not turning in homework in one class might not be the same ones they have in another class, etc.

Because qualitative research examines individuals within a larger social or cultural context, it is also impossible to replicate qualitative research. Each social context is unique, and it changes from moment to moment. For this reason, a full social context is impossible to control or

replicate completely. In conducting education research, if you were to observe how students interacted within the social context of a specific classroom, this would vary from day to day. Students would not act exactly the same on Wednesday as they did on Monday, nor would they act the same at the beginning of a term as at the end of the term. Qualitative research has often been critiqued because it cannot be replicated. It is impossible to fully conduct someone else's qualitative study and get the same results to see if the original study was accurate.

Despite its limitations, though, qualitative research is valuable because it is the only way to fully examine how and why individuals interact within certain social or cultural contexts. While it is impossible to replicate social contexts while studying them, no other research techniques are able to examine culture in its lived context as fully or completely. Qualitative researchers study culture because they believe that knowledge is created through social interaction with others. Of course, this knowledge can change as societies and cultures change. Studying other cultures, then, becomes one way of discovering new knowledge.

Finally, qualitative research can only study what is either observable—people's actions or activities—or what can be learned through interviews. Qualitative researchers cannot directly observe someone's thought processes. For example, qualitative writing research is limited by the fact that even though people can describe as best as they can their thought processes when they write, the mental process of writing cannot be directly observed. Consequently, qualitative writing researchers can only observe the activity of writing—what people put down on paper and how—or they can ask people to describe what goes through their minds as they write. Observing the activity of writing will not tell researchers about deletions that writers made in their writing before they even put anything on the page. It also will not tell them about why writers made certain choices and not others—why they kept certain parts of their writing but deleted others, for example. In both cases, researchers are not getting the full picture of the mental process of writing.

Discussion and Practice
1) Now that you have a fuller picture of what qualitative research is, what are some other advantages and disadvantages to qualitative research that you can see?

Who Does Qualitative Research?

Qualitative research is used in a wide range of disciplines. The **social sciences** developed qualitative research because these fields are concerned with studying people within larger social systems and cultures. Consequently, it is also used most often in these disciplines. **Anthropology** uses qualitative research to understand cultures—both larger, ethnic cultures and smaller subcultures. For example, Betty Tutt (1989) conducted an ethnography on the subculture of female poker players, investigating in particular how women talked to each other. **Sociology** uses qualitative research to understand how social systems such as prisons or schools impact large groups of people. Joshua Page (2008) conducted an ethnography examining two gatherings of the California Correctional Peace Officers Association (CCPOA), a labor union for prison officers. Specifically, he examined how the prison officers used these meetings to ally

with crime victims' groups. **Psychologists** use qualitative research to study how social structures, such as the family, affect individuals. Usually this is done by extensively interviewing one individual or groups of individuals. For instance, Wendy Reiboldt and Avery Goldstein (2000)conducted a two year qualitative study of Cambodian American families to see if they used governmental social services. They found that Cambodian refugee families typically do not use these public social services but instead relied on their family members and friends in the community for aid.

Disciplines outside of the social sciences are also interested in how culture and society affect individuals and therefore widely use qualitative research methods. In **education**, teachers and administrators are extremely interested in studying how school structures—anything from lesson plans to school socialization—impact students so that they can make their teaching more effective. Christina Ortmeier-Hooper (2008), a college writing teacher, used both observations and interviews to investigate why some students do not classify themselves as ESL (English as a Second Language) and want to take mainstream writing classes even though they may have only lived in the United States for a few years. **Business** is another discipline that is interested in how social contexts impact customers. For example, business researchers have conducted qualitative research investigating how music and scent might positively influence customers to purchase items in a store or positively influence how they perceive a certain brand (Dube & Morin, 2001; Morrison et al, 2011).

Where Does Qualitative Research Come From?

Qualitative research relies primarily on two types of research methods (or ways to do research) to obtain evidence: **observations** and **interviews**. To conduct an observation, qualitative researchers write exhaustive notes, recording everything they can observe at the scene. Researchers also often interview someone who is involved in the culture or scene they are observing or they interview someone who is unusual in some way that they want to learn more about. When conducting interviews, researchers also write copious descriptive notes throughout the interview or they will tape the session and then transcribe the recording after the interview.

Although there are many types of qualitative research used to find evidence, the four most common types are the **case study**, **ethnography, focus group, and surveys with open-ended questions**. In a **case study**, researchers will interview one person in depth. This could be a long-term study conducted over a few years or a short-term study of a few weeks, but in a case study, the researcher will usually interview the person several times, trying to get as much detailed information as possible from this person. In psychology, Sigmund Freud is famous for conducting several case studies from which he developed his theories about psychotherapy and the subconscious. An **ethnography** is conducted by recording as many details about a specific culture or social system as possible. An ethnographer will conduct extensive observations over an extended time period. However, an ethnographer will also try to interview as many participants in the culture he or she is observing as possible. The anthropologist Clifford Geertz (1972) conducted an ethnography in Bali. He lived in a village, observing the culture of that

village, participating in the culture of village life, and also interviewing many members of that village. A **focus group** is a group of individuals who are also participants within the culture being studied. However, unlike an ethnography which much more broadly looks at multiple aspects of a culture, in a focus group, researchers have a narrower scope for their research and examine only specific aspects of a culture. Also, in a focus group, instead of interviewing participants separately, participants answer the researcher's questions as a group. For example, if a researcher is interested in learning which teaching methods are most effective, he or she might show a videotape of a teacher using different teaching techniques and then ask a group of students in a focus group which technique was best at helping them learn the material. Focus groups are also commonly used in business and in politics. Political advisors will conduct focus groups to find out which parts of a political candidate's speech people liked the most and why. Finally, **a qualitative survey is a survey that uses open-ended questions** for which respondents can write in their answers. An open-ended survey is unlike a quantitative survey that only uses closed questions that present limited, pre-set options—multiple choice, true-false, yes/no, or scale questions. Open-ended questions have the advantage of allowing qualitative researchers to amass a large amount of responses through surveys; however, these responses are much harder and more time-consuming to sort through and analyze than a quantitative survey. The benefit of qualitative, open-ended surveys, though, is that they allow freedom of response; people can provide more complete descriptions in answering the questions than they could with pre-set responses. Some people, for instance, might find that none of the pre-set responses in a quantitative survey are truly accurate and/or are too limiting to give a complete and accurate response. A good example of a poor quantitative survey that limits responses too much would be many of the Facebook quizzes in which none of the responses seem to fit your personality.

The type of evidence that qualitative researchers gather through observations and interviews is called **primary research** because the researcher is gathering this data firsthand. In other words, the researcher is not reading about a study someone else conducted, which is called **secondary research**, but, through observations and interviews, is conducting research him or herself. However, qualitative researchers also rely on secondary research for sources. First, qualitative researchers usually find other qualitative studies that are related in some way to their study and use these studies to build their **literature review**. A literature review is a brief overview of previous research in which the researcher also argues why his or her own research is important and necessary. Second, qualitative researchers use secondary sources to analyze findings from their interviews or observations in the discussion and conclusion sections of their research studies. Usually, qualitative researchers will use other qualitative research to analyze their data. It is also becoming more common for qualitative researchers to also draw from textual scholars in the humanities such as philosophy or literature. In this way, qualitative scholars often treat the data they obtain through interviews and observations as a type of text that they interpret, in a similar way as a text-based scholar in the humanities will interpret a written text.

When selecting qualitative research methods and sources for your project, consider your writing and research context first. Think strategically and rhetorically about the best qualitative

research methods for achieving your research purpose and persuading your particular audience.

> ### *Discussion and Practice*
> 1) The local natural history museum wants to know which of their exhibits people enjoy the most and why.
>   a. Describe in as much detail as possible the qualitative research methods you would use for this particular audience and purpose.
>   b. Why would these particular qualitative research methods be the best ones for this audience and purpose?

How Do You Do Qualitative Research?

This section will more clearly define the major ways of doing qualitative research—**observation**, **interviews**, **focus groups**, and **surveys with open-ended questions**—what they involve and how to conduct research using each of these methods.

Researching Ethically
Because qualitative research relies on gathering in-depth and often personal information from real people, it is important to research ethically and treat your research participants with respect, no matter what qualitative research method you use. The research participants have full autonomy, meaning that they have the right to understand the research you are asking them to participate in so they can decide whether to participate in the research or not. They have to consent to participate in your research before you can do it. This also means that the research participants should be informed of any physical or emotional risks involved in participating in your research. They have the right to end participation in your research at any time and for any reason. They also have the right to confidentiality if they want it, although for various reasons, you may not be able to ensure full confidentiality. Refer to Chapter 4 for more information about research ethics.

Before you conduct any qualitative research involving people, make sure you get permission from your school's institutional review board (IRB) first. The institutional review board is a federally governed board that is part of every college or university. It protects the rights of human research participants. However, every school has slightly different rules for research conducted as part of a class, so check with your school's IRB first before conducting your research. You can usually find out how to contact your school's IRB online.

How Do You Do Observations?
Observation differs depending on the observer's degree of participation or involvement in the scene. Observation also differs depending on if the observer is an insider or an outsider to that scene.

Nonparticipation

In nonparticipation, the observer is not even present at the scene. This type of observation occurs when someone is observing sports events on television.

Passive Participation
In passive participation, the observer is present at the scene but is not participating at all in the scene. In fact, the observer may not even be noticed by other people there. For example, taking observation notes of a class that you are not a part of or getting a grade in would be a form of passive participation. In passive participation, it is quite easy for the observer to take notes while he or she is at the scene.

Active Participation
In active participation, the observer seeks to do the activities he or she is observing and to fully interact as much as possible with the other participants at the scene. For example, an active participant of skater culture would not simply hang out and observe it but would also learn how to skateboard and would learn as many of the different skating moves as possible. This observer seeks to gain full acceptance into the community he or she is observing in order to fully understand it by observing it first as an outsider but then gradually coming to observe it as an insider as he or she becomes more a part of it. In active participation, it is difficult for the researcher to write notes while he or she participates. Instead, researchers usually take notes right after they participate.

Total Participation
In total participation, the observer is observing a cultural community in which he or she already belongs. Consequently, the researcher already understands the cultural customs of that community and actively participates in them often. For instance, someone who already plays college hockey would be a total participant if he or she observed a college hockey game he or she was also playing in. In total participation, the researcher, of course, cannot write notes during an event. Instead, researchers usually take notes immediately afterwards.

There are many benefits to observing a scene as an outsider. Because the researcher does not have close, emotional ties with this scene, the researcher is less likely to let personal relationships influence how he or she sees a culture or event. Also, the more familiar we are with something, the more we tend to take it for granted and even forget about it. Someone who is brand new to the scene is more apt to record details that natives might find so common that they become invisible to them. However, these normal details might be extremely important in understanding the culture of that scene.

There are disadvantages to observing as an outsider as well. Observers might not understand all of the cultural practices going on in a scene and might misinterpret them. Furthermore, having personal ties to a particular scene might help an observer have greater insight into the inner cultural workings of that place.

Discussion and Practice

1) What are some other advantages of doing passive participation research? What are some other disadvantages of doing passive participation research?
2) What are some other advantages of doing active participation research? What are some other disadvantages of doing active participation research?
3) What are some other advantages of doing total participation research? What are some other disadvantages of doing total participation research?
4) Do you have an impact on the scene you are observing even if you are not a participant within it? Why or why not?

Recording Observations

Good observation usually takes time. It is virtually impossible for a researcher to become completely familiar with a scene after only observing it once. In fact, most ethnographers will conduct observations for several years. Of course, you don't have to observe for that long, but plan your observations ahead of time so that you can schedule more than one observation into your busy school schedule. Also, the more time you spend observing in one sitting, the better data you will have. A good rule of thumb is to observe for at least an hour at a time. Finally, make note of what time you observe and how long it takes because the time of day affects many scenes.

Here are some more tips to keep in mind as you conduct your observation and write your observation notes:

- Record your five senses. Record what you see, hear, smell, and feel. If your observation entails observing some place that serves food or drink, record what this food or drink tastes like as well. Record the time. Record the weather. Record what the place you are observing physically looks like. In fact, you might want to draw a diagram of the layout of the room or area under observation. The layout of an area can greatly influence how people interact with each other. Record what people are wearing. Definitely record what they say, their facial expressions, and body language.

- Don't interpret. This can be tricky because we naturally tend to interpret everything around us, especially other's emotions, without realizing it. For example, someone may appear happy. They may smile, laugh, and tell many jokes. However, because we cannot directly observe this person's happiness internally, it is impossible through only observation to know if this person is actually happy or not. Some people are good at hiding unhappiness. There could possibly be other factors that contribute to this person appearing happy when he or she actually is not. Consequently, just describe in your observation notes what you can see of this person: laughter, facial expressions, and jokes. Also, avoid assigning motivations to people while you observe—unless you can hear as they describe their motivations while they talk to someone else.

- Be exhaustive. Record everything you can, even if it may not seem relevant to your study. You never know which details will become relevant as you look at your

observational data later. The important thing is to record as much of the context—the big picture—as possible so that you can see more clearly how everything works together. Even a seemingly insignificant detail, such as the time of day, could have a tremendous influence on what people do and why in this particular setting. For example, the time of day at a restaurant greatly impacts what people order and why.

- You will notice different details than someone else. We all notice different details than one another. In qualitative research, this is fine. It definitely does not mean that you are doing your observation wrong. In large qualitative studies, different observers are often trained to observe and record similar details; however, even then, observers will differ slightly in what details they record.

Observing Ethically
Because you often do not interact with others while observing, it is not usually necessary to inform participants of your observation or get their consent. The only exception to this is if you intend to record your observations using video or audio; then, you do need to obtain your research participants' consent. You should never secretly record an observation using video or audio. However, even if you are not recording, still check with your school's IRB before you conduct any observational research, especially if you intend to fully interact with the people you are observing. Remember, you want to hide in plain sight when doing observations.

Discussion and Practice
1) Imagine you wanted to study your student union or a favorite local eatery on campus using observational research.
   a. Go to the student union or a favorite local eatery on campus and write observation notes of it using your five senses to record details for 15 minutes. (If it's a nice day, you might want to observe a popular campus spot outside.) In your descriptions, make sure not to interpret emotions or motivations of people.
   b. Return to class and discuss what you observed. What sensory details did you see, feel, hear, smell, and possibly taste? If you observed the same place as some of your classmates, you might want to get together and compare notes, noticing what you observed that was similar and what was different. Once again, when discussing your observation notes, make sure to only include the details you can observe with your five senses without including any interpretation of emotions or motives.
2) Comparing how and what you see in different settings can help you become a better observational researcher. This can also help you develop strategies for writing down details about an observation.
   a. Observe a setting as a total participant for 30-60 minutes
   b. Observe a different setting you do not belong to as a passive participant for 30-60 minutes.
   c. Write a one-page comparison of what observing each of these places was like. What did you see, hear, feel, smell, and possibly taste in each place?

How did being a passive participant affect what you observed? How did being a total participant affect what you observed? How did these two observational experiences compare?

How Do You Conduct Interviews?

Interviews can take many forms. For qualitative research purposes, the face-to-face interview is probably the best. In a face-to-face interview, the researcher has the benefit of reading his interview participant's facial expression, tone of voice, and body language. In this way, the researcher can learn even more about the interview participant. Furthermore, with the aid of these nonverbal cues and the context of a more natural conversation, the researcher will be better able to tell how to interpret the interview participant's responses. The researcher can also quickly find out if a question was misunderstood and rephrase appropriately, or if a response is particularly rich, the interviewer can immediately ask follow-up questions. However, time and resources are always a large factor in research. Face-to-face interviews demand the most time of both the researcher and the participant. Also, if the interview participant lives far away, the researcher may not have the money or time to travel to a face-to-face interview.

If money and time make a face-to-face interview impractical, the next best option for a qualitative researcher is to schedule a phone interview. In a phone interview, at least the researcher has the benefit of tone of voice and the context of a normal conversation. Plus, the researcher can still quickly clarify questions or ask productive follow-up questions.
If the interview participant is unable to schedule a phone interview or you would like to interview so many participants that you do not have time to speak with them all, then you can conduct an email interview. You can interview many people by just mass emailing your list of questions. Also, with email you have the benefit of easily obtaining verbatim responses from your participants without the difficulty of transcribing them (taping a response and then writing that response down word for word). However, there are many drawbacks to email interviews, too. There is a good chance that many of your questions will not be answered and emailed back. Also, in an email interview, nonverbal cues are lost, so most humor such as sarcasm and irony is lost as well, unless you know the interview participant well. Also, the context of a normal conversation is lost, reducing the spontaneity of responses and potentially creating more confusion. Finally, it is more difficult to ask follow-up questions or clarify original questions that may have been misunderstood. Aside from these very practical research concerns, email is not a secure medium. Anybody along the email's route can read your email, so some IRB offices will forbid certain types of questions via email. You also cannot guarantee confidentiality with an email interview.

Writing Effective Interview Questions
The quality of information gathered during an interview depends largely on how you design your questions and how you conduct the interview session. Keep the following advice in mind to help you get the best results from this type of qualitative research.

- *Avoid questions that are worded confusingly.* For instance, avoid using words that could create two possible meanings for your question. Also, use words that you know your interview participant will understand. Use clear, straight-forward language and avoid jargon, unless you are interviewing a professor or expert in the particular field that uses that jargon.

- *Avoid asking a question that is actually asking more than one question.* For instance, if you are conducting research about how a teacher's comments on papers affects revision, avoid asking a question such as, "How do your teacher's comments affect your revision and which comments do you think are the best?" The participant will probably only remember one of the questions and will only answer one.

- *Avoid questions that are too broad or vague.* Interview participants could easily get overwhelmed and then only give general or vague responses in return. A question like this would be "What do you enjoy about the extracurricular activities at your school?" There are too many options here. A better idea would be to narrow the extracurricular activities down to just one.

- *Avoid double negatives when phrasing questions.* Double negatives tend to confuse people. An example of a double negative question is: "What do you not dislike about the extracurricular activities available at your school?" A better question would be "What do you like about the extracurricular activities available at your school?"

- *Avoid biased questions.* Do not use biased or leading questions that give away your perspective. For example, if you are researching coaching strategies in college soccer and you are interviewing a soccer player, do not ask a question such as "So, what did you think of that horrible practice today?" Sometimes bias can be subtle. Things as subtle as body language and tone of voice give away our bias. Also, the more strongly we believe in or feel about something, the more likely we are going to be to let our bias show. However, in phrasing and then asking questions, do your best to appear as impartial as possible. Remember, you are trying to discover your interview participant's perspective and not your own.

Basic Advice for Most Interview Situations:
- Schedule a time for the interview that is convenient for the interview participant well in advance.

- Make eye contact with your interview participant throughout the interview.

- Thank the interview participant for their time before and after the interview. Also, shake your participant's hand before and after the interview if appropriate.

- Make the interview participant comfortable before the interview begins. Small talk, jokes, etc., can go a long way in making the interview participant comfortable. Also, feel free to explain a little bit about yourself, your research project, and what your research project will be used for before the interview begins.

- Dress appropriately for your interview participant.

- Address your interview participant appropriately for his or her position.

- Don't make the interview too long. Respect your participant's time and design your interview questions with your appointment limitations in mind. You may try to reschedule if the interview is running long and the interview participant looks tired.

- Start off with the easy questions first and then warm up to harder questions. This will put your interview participant at ease and give you a chance to get to know each other better by the time you ask the tougher questions.

Interview Advice for Qualitative Research:
- You can be redundant in your questions, but rephrase them productively. To get the most information possible out of your interview participant, you can ask the same question over again—especially if it is an important question to your research. If you ask the question in different ways, you might get different perspectives on it or get a lengthier response.

- Don't give away your research question. You don't want your interview participant to tell you what he or she thinks you want to hear. Instead, you want your interview participant to answer honestly according to his or her own experience. You may explain the basics of what your research is about, but you do not need to go into the specifics of your research question.

- Clarify interview questions if needed. To get the best information possible from your interview participant, it is important that he or she is not confused in any way. If he or she seems confused or hesitant in answering your question, feel free to rephrase it in simpler terms or explain it more.

- Ask follow-up questions if the interview is headed in a direction that is productive for your research. If your interview participant goes off on an unexpected tangent that is still relevant to your research, feel free to ask him or her more about this tangent. Also, if the interview participant gives a lengthy response that has many interesting facets or sides to it, feel free to ask follow-up questions that explain the interview participant's perspective even more.

- Let the research participant do most of the talking. You want to learn as much as possible about the interview participant's perspective. A good rule of thumb to follow is not to talk more than 10% of the time.

Interviewing Ethically

Because your interview participants are human beings with their own set of rights, issues, and potential problems, make sure to respect them during the interview. In order to respect your interview participants' rights during the interview:

- Make sure your interview participant is aware of his or her options for confidentiality before the interview begins and abide by those conditions. When interviewing a person, you will know the identity of the person, but when you write it up for your research, the participant has a right to have his or her identity remain confidential from the audience you are writing for. The interview participant can have full confidentiality where you refer to him or her by a pseudonym. The interview participant can have partial confidentiality where you refer to him by his or her title or position but do not disclose his or her name. Finally, the interview participant can have full disclosure. In this case, you can refer to the research participant by his or her full name.

- Make sure your interview participant is aware of his or her rights as a research participant. Make sure your research participant knows that he or she must give consent to be interviewed before you begin the interview. (Refer to researching ethically at the beginning of this section to find out more about research participant rights.)

- Request that the interview participant sign a consent form that states that the participant understands his or her rights as a research participant and that, by signing the form, the research participant is giving his or her consent to be interviewed.

- Always ask the interview participant for permission first if you are going to tape record the interview. If the interview participant declines, do not record the session.

- If the interview participant is uncomfortable answering a question, do not pressure or force him or her to answer. As an autonomous research participant, the interview participant has the right to *not* answer any question that he or she does not wish to answer. If this happens, just move on to the next question.

- Do not ask interview questions that could directly incriminate the participant for illegal activity. For example, don't ask a question such as "How often do you drink beer?" if your participant is under the age of 21. You can ask questions about the participants' attitudes and beliefs about an illegal activity but not a question that directly asks if they have participated in the illegal activity. So, you could ask a question about whether the interview participant thinks the drinking age should be lowered to 18and why.

- Get Institutional Review Board (IRB) permission before the interview begins.

Discussion and Practice

1) Say you wanted to research movie preferences of college students using qualitative research method, namely interviews. Using your class as a sample of students:
    a. Write interview questions asking a classmate about what their favorite movies are and why.
    b. Get together with another classmate and interview them about their favorite movies and why they like them. Be sure to take good notes recording your interview.
    c. In class, discuss what you discovered about each other's favorite movies.
    d. Based on the information you discovered in your interview and your class discussion, what overall claims can you make about what college students like in movies? Remember, while you are looking at why college students like certain movies, your class is too small to generalize about all students' preferences quantitatively.
    e. What specific strategies did you use to write effective interview questions?
    f. What interview strategies did you use to get the most information from your interview participant?
    g. What could you have done better next time in either writing your interview questions or interviewing?

How Do You Conduct a Focus Group?

In a focus group, an interviewer will develop a list of discussion questions and then let the discussion of the group develop from there. While still structured to a certain extent, focus groups are much more free-form than a traditional interview because you need to let the discussion develop naturally and take its normal course.

The benefits of focus groups are that they allow a lot of responses from many different individuals in a short amount of time. Also, because the interviewer is only developing discussion questions (not direct interview questions) and the intimidation some participants might feel from the interviewer is minimized by being part of a group, most focus group participants feel more comfortable and are often more forthcoming than they would be in a one-on-one interview. However, a problem with focus groups is that group dynamics can change dramatically from group to group. It can be a challenge to get a cohesive group together that can not only offer pertinent insights for answering your research question but also feels comfortable enough together to talk freely in a short amount of time. In a focus group, it is essential that the researcher gets insights from all the participants; however, if certain members are shy or feel intimidated by more dominating or socially powerful members of the group, they may not fully offer their perspectives. Finally, it can be difficult to get the

conversation off to a productive start in only an hour or so. Time management of the conversation is key and can be tricky.

The first step in doing a focus group is finding a problem that needs the insight of many individuals to solve. For example, teachers have been using focus groups for years to test out various teaching techniques on students. Getting the perspectives of many students is crucial in figuring out what teaching methods work best for everyone. The next step is finding a group that can offer the insight you need to answer your research question. Finally, just like with an observation or an interview, it is important to take good notes during the focus group session. It is crucial to record everyone's responses so that no one's perspective is lost.

Writing Focus Group Questions
- Follow the same guidelines for writing qualitative interview questions mentioned above. For example, make sure that your questions are clear, direct, and understandable to everyone in your focus group.
- Start with the general questions first and then move to the specific ones.
- Start with the most important questions first and end with the least important.

Creating Conversation in a Focus Group
- Start the focus group with a brief welcome. This will help your group feel more relaxed. You might also ask everyone in the group to introduce themselves to further break the ice.
- Second, briefly summarize what the topic under discussion will be. Understanding the point of the discussion will help orient the group quickly so that they give you pertinent information right away. However, just like in an interview, remember not to give away your research question.
- Next, you may want to establish any rules for the conversation if you think they apply. This will help the conversation get off to a smoother start.
- Ask the first question and let the conversation develop on its own, if possible. You may want to mediate to some extent by acknowledging people who seem to have something to say while another person is talking or asking follow-up questions if the conversation stalls.
- Remember to be relaxed and conversational in a focus group and act just as you would in a normal conversation.
- Keep the conversation focused on the question at-hand. In other words, don't let the conversation stray and go off-track.

Creating Ethical Focus Group Conversations
Follow the same principals for creating ethical focus group discussion questions as you would for interview questions. Make sure all focus group participants are aware of their rights as research participants and know that they must give consent to be part of the focus group before the focus group begins. Make sure your focus group participants are aware of their options for confidentiality and abide by those conditions. Request that the focus group

participants sign a consent form that states that they understand their rights as research participants and that, by signing the form, they give their consent to be part of the focus group. Always ask the focus group participants for permission first if you are going to tape record or videotape the focus group discussion. If any focus group participants are uncomfortable answering a question, do not force them to answer. Do not ask interview questions that could directly incriminate any of the participants in illegal activity. Finally, get Institutional Review Board (IRB) permission before the focus group begins.

Discussion and Practice

1) What are some further benefits of focus group research that are not listed above in your opinion?
2) What are some further problems with focus group research that have not been mentioned above?
3) Imagine the provost or dean of your college wanted to find out more about problems that concern students at your campus.
   a. Develop a research question around some problem on campus that needs the multiple perspectives of a focus group to solve.
   b. Write focus group questions that will give you pertinent information to answer your research question. However, design your questions for a short, 10-minute focus group.
   c. Get together with your classmates and get in groups of five.
   d. Practice leading a focus group on this five person group for 10 minutes. Make sure to take good notes and record everyone's responses. Let everyone in your group conduct their focus group on the rest of the group too.
   e. Freewrite:
      1) How did the responses from the focus group answer your research question? In other words, what did you learn from it?
      2) Now that you have written questions for a focus group and then led it, what would you do differently?
      3) What did you do well in writing your questions and leading the group?
   f. Discuss your freewrite responses as a class.

How Do You Conduct a Qualitative Survey?

Instead of interviews, qualitative researchers might conduct a **survey** or **questionnaire**. Because qualitative data is always descriptive, questionnaires employ **open-ended questions**—questions that allow respondents to write out their own responses and/or fill in the blanks. In other words, qualitative questionnaires do not use **closed questions** that only allow for predetermined options like multiple choice or simple yes/no or true/false questions (Refer to chapter 8, Quantitative Research, to learn more about using surveys with closed questions). Closed question questionnaires create excellent numerical or quantitative data but poor descriptive data.

The benefits of using a qualitative, open-ended survey over a face-to-face interview are that they are easier and faster to conduct. It is much easier and quicker to pass out (or email) a survey than it is to interview someone in person. It is also less time intensive for the research participant. Therefore, researchers can usually survey many more people than they can interview, making it easier for them to generalize their survey data. There are problems with survey research, though. Some depth in responses may be lost. For instance, surveyors are usually unable to tell if their questions are being misunderstood until after their survey has already been filled out and it is too late. Also, although open-ended questions allow for a certain amount of depth in responses, some depth will inevitably be lost. Surveyors are unable to ask follow-up questions to hear more about a particular perspective like interviewers can. Also, someone filling out a questionnaire may rush through it and give perfunctory answers or they might get tired of writing by the end, so the quality of responses can be uneven.

Writing Qualitative Survey Questions
Basically all the tips for composing good interview questions apply to composing qualitative survey questions as well. However, because you do not have a face-to-face advantage and cannot read tone of voice, body language, or facial expressions and do not know until after the survey has been filled out if your questions were understood, it is even more crucial to ask questions that are clear and understandable to your audience. Remember, you do not have the option of clarifying a question for your research participants. If they get confused, that part of your data will be useless.

- Use language that is clear to your audience. If your research participants are in high school, use language in phrasing your questions that you know they will understand. Don't use the specialized jargon you learned in your psychology class for instance. However, if your research participants are all psychology majors, do include common psychological terms you have learned. These terms will be more precise and actually clarify your intentions to this audience with psychological expertise.
- Avoid using words that could be interpreted in more than one way.

Refer to chapter 8 on Quantitative Research for more information about creating and administering surveys and questionnaires.

Surveying Ethically
Just as with interviews and focus groups, survey participants have a right to research autonomy. They need to be informed briefly of what the survey is about and then told that they do not have to participate if they do not want to. Also, while confidentiality is not as big of a problem in surveys, survey participants should still be told what demographic information about them will be used. You should not ask survey questions that directly incriminate participants in illegal activity, even if their identity will remain anonymous. Finally, as with all research involving human subjects, you should get IRB approval first before you conduct your

surveys. Researchers usually add a paragraph at the beginning of the survey that explains the purpose of the study and informs respondents of their rights.

> ### *Discussion and Practice*
> 1) Say you wanted to research music preferences of college students using open-ended, qualitative surveys. Using your class as a sample of students:
>   a. In groups of three, write a qualitative survey asking another group of three what their favorite kinds of music are and why.
>   b. Discuss the results of your survey as a class, possibly putting the results of the entire class up on the board.
>   c. What do these survey results say about college students' music preferences? Why?
>   d. Now that you have written your survey and distributed it, how would you better write your survey next time?

How do you Analyze Your Data?

After doing your interviews, observations, or surveys, wait a day or so. Then come back to your observation and interview notes or open-ended survey data and interpret them in what is known as **cooked notes**. In your cooked notes, you will examine how your observation or interview notes answer your research question, possibly looking for patterns in your data that you hadn't noticed before. Then you might make tentative interpretations about why certain patterns are occurring. Also, you should ask more questions about your research or make possible notes for further research.

However, in your cooked note analysis, go a bit further as well. Perhaps your data reminds you of a lecture or a book you read in another class, so you might want to go back and talk to the professor further or check the book out from the library. You might realize you need to interview someone who participated in the scene you observed to get his or her thoughts on it. Or, perhaps, you realize you need to observe more or that you need to observe some other place for further comparison. Finally, realize that your interpretations are tentative. Have an open mind to changing your interpretations if needed.

After you have written your cooked notes, you will want to **code** or sort and organize your observation, interview, or survey data. For qualitative data, coding often consists of sorting your data around certain recurring themes or topics that seem to come up. Your cooked notes should help draw your attention to what was important in your data and help you develop what your themes or categories should be. Make sure that each of your coding categories answers your research question in some way. For example, if your research question is how female baseball fans act compared to male baseball fans at a baseball game, some themes might be types of clothing, types of cheering, types of interactions with neighbors, etc. To code the category for cheering, you might highlight every time your interview participant mentions cheering or highlight every time you noticed cheering in your observation notes. Then you

would put all the highlighted information about cheering together and compare and contrast it, seeing if you could see any similar patterns or differences between how males and females cheer. (For more about statistical coding, refer to Chapter 8, Quantitative Research).

Discussion and Practice

1) At the end of this chapter is a collection of 23 short interview responses about motivation to play online games under Qualitative Case D on page 102. For this exercise your qualitative research question is "What motivates people to play computer games?" An alternate research question could be "Is playing computer games beneficial or harmful? Why?"
    a. In groups of three, code the qualitative data. When coding your data in groups, look for any recurring patterns in your qualitative data that answer your research question.
    b. In class, discuss what coding categories you came up with that answered your research question.
    c. Did groups have different coding categories? Why?

Triangulating Data

Often qualitative researchers will use two or three different qualitative research methods which is called **triangulating** data. For example, they may observe people in a particular location but then also interview some of the people they observed. By triangulating data, researchers can compare the data they get through using different research methods and gain a greater perspective about their data. For instance, a researcher who is observing coffee shop customers could also interview some of them to see if they see the coffee shop in the same way as the researcher does. If they don't see the coffee shop in the same ways, the perceptions of the coffee shop customers could ultimately change what the researcher observes about the coffee shop as well. Triangulating data is particularly important in qualitative research since research cannot be replicated and validity cannot be tested. By comparing one data source with another, triangulating data is also a way to double check for bias or potential other problems with your data. However, triangulating data also helps the researcher interpret his or her data in a way that is more insightful. (For more information on how to triangulate data using methods from more than one research tradition, refer to Chapter 9, Mixed Method Research.)

Discussion and Practice

1) Can qualitative research be truly objective? Why or why not?
2) Can any research by truly objective? Why or why not?
3) What are some ways to minimize subjectivity in qualitative research?
4) What are some benefits of subjectivity? What are some disadvantages of subjectivity?

How Do You Write about Qualitative Research?

Now that you have a fuller picture of what the different research methods entail in qualitative research, this section will help you get started on conducting and writing about your own research as an actual qualitative scholar and researcher would. This section will not only help guide you through the research process, but it will also help you begin writing a scholarly research article. While thinking of how to write a scholarly article, remember your rhetorical situation. Keep in mind that your audience for an academic article is a community of other qualitative researchers. Understanding what this audience values in research and writing will help you as you write your article. Also, understanding your purpose in presenting your research to this audience will also help guide you in your writing. Begin by developing your research question, followed by planning and conducting your study. Next, analyze your data and write up the report.

How Do You Develop a Qualitative Research Question?
The first step in conducting and writing about qualitative research is figuring out your purpose for conducting research. Consider any interesting social phenomenon that happens in your life—on campus, in your neighborhood, in any organizations you are involved in, with your family or friends, etc. Is there anything that happens in these social groups that you do not understand and want to learn more about? Are you conducting research because you have noticed some social problem on campus that you want to learn more about? For example, have you ever wondered why some dorm roommates get along well while others do not? Or are you interested in learning more about a culture you know nothing about? For example, would you like to learn more about how DJs mix music in clubs and the culture surrounding their activities? Also, are there any organizations or hobbies that you do not know much about and want to learn about?

After figuring out the purpose of your research, develop a clear research question that accurately reflects this purpose. In qualitative research, a research question is like a thesis—everything you do stems from that one research question. Not only is developing a research question the first step in your research and writing process, but it is important that you carefully compose your research question to reflect the research you want to conduct as closely as possible. Like an unclear thesis statement, an unclear research question can lead you astray both in research process and in your actual writing of that research.

Good qualitative research questions are descriptive and usually start with "how" or "why." "How" usually describes a process. An example of this kind of process question would be: how do students interact with each other while riding the elevator? Or how do fans interact during a hockey game? "Why" questions not only describe but also explain phenomenon. For example, questions such as this would ask: why do students riding the elevator interact in certain ways? Or why do fans interact the way they do at a hockey game?

The most important thing to remember when developing your research question is to make sure it can be observed or at least discovered through interviews. Some phenomenon simply cannot be directly observed or explored through interviews and are better left to other

research methods. For example, the research question "what strategies do physics majors use to study" is observable to an extent. You could observe whether students highlight or write information down as they read. You could also interview physics majors and find out any study strategies that are not directly observable such as memorization techniques. However, the research question "how do physics majors learn their material" would be impossible to directly observe because learning is a complex mental process. While interviewing might uncover some of the physics majors' learning processes, it would still only give a partial picture.

The best qualitative questions are descriptions of why and how certain social phenomenon occur and do not simply count them quantitatively. For instance, a question that starts with "how many" is not a good qualitative research question but might make an excellent quantitative research question. Questions of "how many" do not get at the depth of descriptive data that other qualitative research questions can. These types of counting questions do not explore how and why certain social phenomena exist, which is what good qualitative research does. For example, counting how many lattés people order at a coffee shop would make an interesting quantitative study, but it is not a good qualitative question. A better qualitative question would be to examine how people interact with other customers and employees as they order their drinks, to look at the process of how exactly they order their drinks, or to interview both customers and employees to investigate why customers purchase certain drinks. In many studies, qualitative and quantitative research does mix, and if you find yourself asking counting questions of "how many," perhaps you should consider conducting a quantitative study or a study that uses both qualitative and quantitative research methods.

Qualitative researchers rarely if ever form hypotheses before they conduct their research. Instead, qualitative researchers strive to keep an open mind about their research, seeing their research as a way of discovering new aspects of their social world that they did not know before. If they formed a hypothesis before they had even conducted their research, they might miss out on pertinent details and only see what they intended to see—not what was actually there. It would also be much harder for them to discover anything new or unexpected in their research.

Because it is so important for qualitative researchers to remain as unbiased as possible in investigating social phenomenon, it is crucial the research questions remain unbiased. For example, the research question, "Why are women bad at playing video games?" is biased. It is already assuming that all women will play video games poorly even before the researcher has started his or her research. The question, "What kinds of video games do women play and why?" is much more unbiased. It lets the researcher remain open to discovering—and possibly being surprised by—what types of video games women play and their reasons for playing them. Another less biased research question that still gets at the play styles of female gamers could be "What play strategies do females who play warlocks use in World of Warcraft when they raid and why?"

In coming up with a clear, precise research question, make sure to narrow your question to address exactly what you want to study and can accomplish in the given time frame. For example, the research question, "Why are female sports more unpopular than male sports?" is an interesting one, but it is much too broad to investigate during one class. First of all, which sport is it investigating? Second, it is unclear whether the popularity of female sporting events is going to be investigated in the televised media or by attending local college female sporting events. A more focused question would be, "Why is there lower attendance at women's college basketball games than at men's basketball games at my school?" This question narrows down exactly which sport—college basketball at your school—you will be looking at and what aspect of popularity—attendance at games—you will be examining.

Finally, make sure that your research question is getting at new knowledge and not asking a question that you and everyone else knows the answer to. Research is about uncovering new knowledge and is only worth doing if it will increase our understanding of the culture or context being studied.

How Do You Choose a Qualitative Research Method?
After you are done carefully composing a clear, accurate research question, the next step is to choose the research methods you will use to answer that research question. Most qualitative research relies on triangulating both observation and interview research methods. However, there can be some variation. So, when choosing your research method, the most important thing is to choose the method or methods that best answer your research question. In the party example opening this chapter, a possible research question could be: "How do males and females compare in their interactions at parties and why?" To answer this question, it would be best to employ a range of qualitative methods: both observations and interviews. Observations are crucial to see what social behaviors males and females are actually engaging in at the party. However, observation may not be enough, especially if the researcher wants to delve into the reasons for certain patterns of behavior. In other words, the interview data might enrich what the researcher observes. However, the researcher also needs to use the observations to triangulate her interviews to verify them. (Refer to the previous section in this chapter on research methods for more information on how to conduct your research.)

Discussion and Practice
Chapter Project: Step 1
1) Decide on a topic of interest that you could research using qualitative methods. Create a research question for it. Underneath your research question, include what research methods you will use to answer the question.
   a. After constructing your research question and method, switch research questions with a classmate and peer review it.
   b. Peer Review. In giving your classmate advice on how to better revise his or her research question, answer the following questions:
      - Is the research question something that can be discovered through observation or interview?

- Is the research question as narrow and precise as possible?
- Did your classmate pick the best qualitative research methods to answer the research question? Does the research question accurately reflect the research methods being used?
- Is the research question doable in the time-frame of the class?
- Is the research question qualitative and descriptive? In other words, is it getting at a "how" or "why" question?
- Is the research question asking for new knowledge? In other words, will it provide some new insight about the topic?
- Is the research question open or does it assume a hypothesis of some sort?
- Are there any problems with the research question? Is it biased? Is it too obvious?

c. After answering these questions, if you think that any part of the research question needs to be changed, make sure to offer specific suggestions for revision along with your critique.

d. Switch research questions with your partner and go over your feedback with each other.

e. Revise your research question after hearing your partner's feedback.

How Should You Organize and Write a Qualitative Research Report?
Just like with other research methods, different audiences will have different expectations for how to organize a research report. In qualitative research, your goal is to introduce your research question, describe your setting and how you collected your data, and to cover what you found and its implications. For this reason, following an Introduction, Methods, Results and Discussion (IMRAD) format can be helpful as a researcher in communicating something as complex as a primary source research report. No matter who you are writing for, however, you will find that the following writing strategies can be adapted for many different organizational schemes.

The Introduction
Like all introductions, the introduction of an academic study should do two things: 1) clearly let the audience know what your study is about and 2) hook their interest. To let readers know what your study is about, clearly state the purpose of your study. This is also where you need to clearly state your research question. Your audience of scholarly researchers wants to read the newest, most important research that builds upon previous research in crucial ways. Researchers, more than anything, value the making of new knowledge. So, to grab readers' interest, briefly argue for why your research is important. How could your research help people? How could your study further research? How is your research new and ground breaking? What other benefits does your study have? Right off the bat, give other researchers a reason to keep reading about your research.

The Literature Review Section

The literature review section summarizes previously conducted research that relates to your research question. In this summary, you will definitely want to explain how this previous research relates to your own study.

All research builds upon previous scholarship. So, while the literature review is a summary of previous research on your topic, it is also much more than that. The literature review is actually an argument to other researchers for how your research question is answering something new that has not been studied before. No one wants to read about supposedly "new" research that has already been done, unless this new research critiques older research in important ways. So, the literature review summarizes previous research in order to explain why your own research is new and needs to be conducted. Showing how your own research is new is called creating a research gap. You need to show other researchers that there is a "gap" in the previous research— something that previous research has not done—and show how your research will fill this gap and create new knowledge.

Usually, the beginning of the literature review summarizes the previous research related to your research question. This is also where you will want to explain how this previous research is related to your own research. However, remember that in summarizing this previous research you are also beginning to build your case for why your own research is new and different from the previous research.

The statement of the research gap often comes at the end of the literature review. Here you want to explain in a clear and concise statement what you are contributing in your research that is new or different from the other sources you have found on your research topic.

Here are some strategies to help you develop your research gap and differentiate your study from the previous research you have found:
- In what ways might your research extend previous research? In what ways might your research take previous research to the next step? For instance, you could design a qualitative research study that is similar to a previous qualitative study but also does something more and goes further in certain ways.
- Are there any problems with how the previous research was conducted that you could do better in your own study?
- Was there interesting research that was conducted on one particular population that has not been conducted on another population before?
- Are you examining a social phenomenon or specific aspect of culture that has not been studied before?
- What is your research doing differently that no other research has done before?

Discussion and Practice
1) Annotated Bibliographies are a list of sources related to a topic with a summary of what the source is about and how it relates to your research question or issue. We

discuss these in Chapter 11, Documenting Sources. Before you can write a good introduction, you need to first find sources and summarize them.

    a.   Find five academic, peer reviewed sources (for a refresher on what a peer reviewed source is refer to Chapter 3) that are related in some way to your research.

    b.   Include the reference, works cited citation of each source in either APA, MLA, or Chicago for each of your five sources. Ask your professor for guidance. (Also, refer to Chapter 11 for more information on how to cite end-text citations.)

    c.   Underneath each citation, summarize the article. Make sure to be careful in your summary and either quote or use your own words while paraphrasing.

    d.   Make sure to clearly explain how each of your five sources relates to your research question

Chapter Project: Step 2 — Literature Review.

Using the sources you found for your annotated bibliography, write a one-two page literature review. In your literature review, remember that you are writing an argument of how your research is new—defining your research gap. So, in your literature review, you will clearly explain how your research is adding something new that the previous research did not mention or building upon the previous research. To do this, refer to the bulleted list of questions above to help build your research gap.

The Methods Section

The methods section is the section in which you describe how you did your research. The methods section is one of the most important sections of a qualitative study. Because qualitative studies cannot be replicated, it is important for the qualitative researchers to describe how they did their research in as much detail as possible. It is important to describe how you did your research in detail, making your research appear as transparent as possible to your audience so that they can at least evaluate how you did your research and, perhaps, improve upon it in the future. Your research findings are only as good as the research strategies you used to get them, so explaining exactly how you did your research is crucial for your audience. And, of course, the methods section is important for your audience because, as researchers themselves, your audience wants to learn about how other research is being done.

Specifically, the purpose of the method section is to describe every step you performed to gather your data. Everything from coming up with your interview questions to specifically what you were looking for in your observation and how you did your observation needs to be recorded so that future researchers can perform similar research. Everything that appears in your method section should be described explicitly and be observable. When writing a method section, think of writing directions to somebody you have never met on how to do what you did in your study.

In the methods section, it is also important that qualitative researchers present themselves as transparently as possible as well. This is referred to as situating the researcher. No two people ever observe a place in the same way; no two people notice exactly the same things in an interview. This is because our backgrounds, personal histories, and cultures are all slightly different, and, as a result, they shape us in different ways. For example, a hockey player observing fan behavior at a hockey game would notice different things about fans than someone who had never played hockey. A female would notice different things about a group of females talking than a male would. A teacher would notice slightly different things about her class than one of her students would. So, it is important to describe as much about your background as possible when writing about your qualitative research, especially your relationship to your research subject, since this relationship will inevitably shape your perceptions.

Observations
In describing how you did your observations, it is important to clearly state where you conducted your observation. Include what times you conducted your observations and for how long. It is also important to explain your rationale for choosing this particular location. How does observing this location answer your research question in pertinent and provocative ways? Because no two people ever notice the exact same things about a place or event, it is particularly important to explain exactly what you were looking for in your observation. The more specific you are in explaining what you were trying to observe, the easier it will be for other researchers to evaluate and perhaps emulate your research. For example, if you observed fan behavior at a basketball game, be more specific in describing what you studied than "fan behavior at a basketball game." What about fan behavior did you observe? Did you focus on how male and female fans interact during the basketball game? If so, what about this interaction did you observe? Whether males and female sit together? What they say to each other? Their facial expressions when they interact with each other? Their tone of voice or body language when they interact with each other? In explaining your method, list every relevant feature of the setting or activity that you set out to observe.

Interviews
When describing how you did your interviews, it is important to clearly state who you interviewed, but it is also helpful to explain your rationale for choosing this particular person as an interview subject. How could interviewing this particular person answer your research question? What unique insights could this particular person bring to your study? You also might want to describe how long your interview sessions were and how many you conducted.

Briefly summarizing your interview questions in the methods section or including your interview questions in an appendix at the end could also help other researchers know exactly what questions you asked during your interview, making your interview research more transparent. Also, offering your rationale or reasons for choosing to ask these particular questions explains to other researchers how and why your interview questions address your research question. Clearly listing your interview questions and then including your rationale for

them will help your audience of academic scholars better evaluate whether your interview questions were appropriate or effective in answering your research question.

Qualitative Surveys

The most important thing to mention in describing how you conducted your qualitative survey is including as much information about who you surveyed as possible. If you have the data, include gender and age. Also, include anything else that might be relevant about the people you surveyed. For instance, you might want to include year in college or major, especially if your survey is related to academics or life on campus. Another crucial factor to include is how many people you surveyed. For surveys, the more people you survey the better. Finally, just as with interview questions, briefly summarize your survey questions and offer an explanation of why those particular questions answer your research question.

Headings and Organization

Organize the methods in a way that makes the most logical sense. In other words, you should more than likely put all your description of your observation in one place and then all your description of your interview in one place. In addition, you may consider subheadings. This will make it easier for your audience of busy academic scholars to quickly read and comprehend your methods section.

Tense

You should describe how you conducted your research in past tense, even though the methods section can be written before you have even done your research. In fact, describing how you will do your research in your methods section can help give you a clearer idea of how you will specifically go about conducting your study. However, if you write your methods section ahead of time, be sure to describe it in past tense as if you have already done your research, even though doing this may feel odd.

Data Interpretation

Finally, you might want to describe how you interpreted your data. What coding or categorization system did you use to interpret your data? Because you will have tons of data, you will inevitably need to sort it in some way. Of course, this categorization will also shape how you interpret your data and your results. Another coding system will probably give you a slightly different set of conclusions, so it is important for other researchers to see how you coded or sorted your data in interpreting it. Of course, this coding system will probably be greatly influenced by what you were trying to look for in your observations. For instance, if you were observing fan behavior like in the previous example, your coding or sorting system would consist of: 1) How males and females sat in relation to each other, 2) What males and females said to each other, 3) What their body language was toward each other, 4) What their facial expressions were in reaction to each other, and 5) What their tone of voice was like when they spoke to each other. For each category, you would develop a list of possible descriptors. For example, you might keep track of how much of the conversation pertained to the game and how much was devoted to different topics.

Discussion and Practice

1) In groups of two, develop a qualitative research question and qualitative research methods for answering it.

   a. Write a methods section describing your research methods in detail. (Even though you have not conducted your research, use past tense in writing about your research.) While the questions below are not exhaustive, answering them should help you write your methods section.

   - What is your relationship to whom or what you are researching?

   Observations

   - Where are you observing?
   - When are you observing?
   - How long are you observing?
   - Why are you observing? In other words, how will this observation help you answer your research question?
   - What exactly will you look for in your observation? Why? What is your rationale for looking for these things?

   Interview

   - Who are you interviewing?
   - Why are you interviewing this person? In other words, how will interviewing this person help you answer your research question?
   - Briefly, what are your interview questions?
   - How will asking these interview questions help you answer your research question?
   - Is your description of your research organized in the most logical way? Would your description of your research be easier to read if you used subheadings?

Chapter Project: Step 3 — Methods section

Write a methods section explaining how you will conduct the research for the research question you have previously developed.

Results/Discussion

In qualitative research, the results consist of the data gathered from observations, interviews, and qualitative surveys. In the discussion, these results are analyzed. In analyzing the data, the qualitative research writer will look at the data in the results and explain how this data answers his or her research question. Usually, to interpret their data, qualitative researchers will also use additional sources—other qualitative studies from their literature review or other theorists studying some aspect of the social phenomenon the qualitative researcher is also studying. These outside sources will explain more in depth how and why the data answers the research question. However, there are many different ways to present the data in the results and analyze it in the discussion.

Separating the Results and Discussion Sections: The Results Section
In the results, the data can be merely recounted as a straight retelling without any interpretation. In this case, the interview, observation, or survey data would be retold verbatim straight from the notes. The writer attempts to present his or her data as objectively as possible. This more closely follows how data is presented in most academic physical science writing such as biology or physics. Most importantly though, in this case, the results section would be clearly separated from the discussion section because the data would only be interpreted in the discussion section. The results section would be titled "Results" and the discussion section would be titled "Discussion." Separating the results in its own section can help your audience of researchers see exactly what was said or observed in your research without any clouding of interpretation.

Separating the Results and Discussion Sections: The Discussion Section
When the results and discussion are separated into separate sections, any interpretation of the data occurs in the discussion section. The discussion is where the researcher looks at the data and explains how it answered the research question (or not). The discussion is probably the most important part of any study because it is where you explain what it all means—something your scholarly researcher audience is definitely interested in. They want to know the further implications of your research. This is also where researchers may offer some insight into why they think they observed certain things or received certain responses to interview questions. To offer more insight into what the data means and why the researcher obtained certain responses or observations, the researcher might turn to other theories or books. For example, this is where, if your data reminded you of a lecture in another class, you could interpret your data using the theories you and information you learned in that class.

If you previously coded your data, finding patterns or themes in it, those organizational themes might also help you analyze your data further. In fact, the organizational themes or patterns you found in your data when you originally interpreted it might serve to organize the analysis in your discussion and could possibly even serve as subheadings.

Finally, no matter how you analyze your data and interpret it, make sure to offer data from your observations and interviews of proof of this interpretation. Be specific with your data evidence. Offer specific quotes from your interviews or surveys or specific details from your observation as evidence.

Combining the Results and Discussion Sections
In most writing of qualitative research in the social sciences, there is recognition of the interpretive nature of gathering data from observation, interviews, and surveys. Consequently, it is quite common for the results and discussion sections to be combined. The qualitative researcher presents his or her data and then immediately analyzes it. Many times qualitative research writers will also present the analysis of their qualitative data in a compelling way. In this case, the research question still serves as the over-arching thesis, but the qualitative researcher presents his or her analysis of data in an organized and compelling way, almost like

supporting points in an argument, explaining how and why his or her data answered the research question and what his or her findings were. The qualitative research writer offers his or her data as proof in this argument and then interprets it, showing how this data proves a point about the findings. For this proof, the researcher will often use specific quotes from interviews or details from an observation. In this way, the qualitative research writer constructs arguments similarly to how a writer would construct a text-based argument. In fact, in this case, the qualitative researcher treats his or her observational, interview, or survey data like a text, using other sources to then interpret it.

When combining the results and discussion sections, headings become crucial as they present the main points that the qualitative research writer is trying to make with his or her analysis of data. Often the headings will emphasize coding categories. In fact, these headings usually serve as a type of transition between the major points of analysis being made about the data. For example, if you were observing gendered fan behavior at a basketball game, one of your headings in your analysis would be topics of conversation. You would present your data and then analyze it further, comparing and contrasting it with previous research on topics of conversation between men and women at sporting events, and, possibly, examining why this behavior occurred for instance.

The First Paragraph
No matter how you organize and write your discussion section, the first paragraph should clearly state how you answered your research question and what your overall findings were. In other words, the first paragraph should serve as an introduction for the rest of your analysis to come.

Discussing Research Limitations
Regardless of whether the results and discussion section are combined, at the end, the qualitative research writer should clearly and accurately discuss the limitations of his or her study. This not only creates better credibility for the qualitative research writer, but it also creates a jumping off point for the audience of other researchers to further research this qualitative study in the future. Because all research builds on other studies, describing places where future qualitative research could be improved upon is particularly important, particularly to your audience of other researchers who might use your suggestions to begin further research of their own.

Finally, the qualitative research writer can also explain how his or her research could have social significance and how it could possibly help others. Explaining the social significance should answer "So what? Why is this research important for other people?" In some studies, the limitations and significance are often under the heading of "Conclusion," although not always.

Discussion and Practice

1) In a previous Discussion and Practice, we asked you to look at data from Qualitative Case D and the collection of 23 short interview responses responding to the research question, "What motivates people to play computer games?" If you did not do that activity, code and analyze that data now, looking for categories and patterns. Using the notes now or from the last time you coded that data, write a brief discussion section about those results in groups of two or three.
    - In the first paragraph, explain overall how your data answered your research question and what your most important findings were.
    - In the next paragraphs, discuss each finding in more depth (each major finding should at least have its own paragraph or more). Support each finding with interview quotes or paraphrases.
    - Analyze each finding in more depth. What do you think causes each motivation? Why? Refer back to the interview quotes and see if any of them shed more light on why these motivations happen. Also, in explaining why these motivations are possible, feel free to refer to any theories or ideas in any other books you have read or lectures you have heard.

Chapter Project: Step 4 – Discussion and Results Sections
Conduct your research and then write a results and discussion section for it, using the steps described above.

References
Most social science research is cited using the style of American Psychological Association (APA). However, citation style varies between disciplines. Always ask your professor about which citation style he or she wants you to use. (For more information on how to cite your sources using APA style, refer to Chapter 11.) While citation can often seem overly nit-picky, it is important to be accurate because citation quickly tells other researchers how to find the sources you have used. By looking at your sources, they can check your sources for accuracy or, even more likely, they can read and then use your sources in their own research.

The Appendix
The appendix comes at the very end of a research report. The appendix is where you can include the detailed data from your study that would be too overwhelming to include in your article. Here is where you could include a verbatim transcript from your interviews or your observation notes. Some researchers will add artifacts that they referred to in the rest of their report including documents, pictures, and diagrams.

While the appendix is an optional part of a research report, it is especially important for your audience of qualitative researchers. This is where other qualitative researchers interested in your research can critique your methods or investigate even more in depth how you conducted your study so that they can build upon it in their own studies. They can also read the appendix and tell if your analysis of the findings match up with your data.

The Abstract

The abstract is a paragraph summary of your whole research project. The abstract serves as a type of cliffs notes for other researchers. Most academic research studies are extremely long, so other researchers will read the abstract instead of the entire study in order to quickly see if the study is related or relevant to their own research. If it is, then they will more carefully read the study in its entirety. The abstract is located at the beginning of your report. However, because you are summarizing all of your research in the abstract, especially your findings, the abstract should be written last after you know exactly what your findings are.

As a summary of your entire study, the abstract should first clearly state the purpose of your study. However, it should also do more than that. Like the literature review, it should briefly summarize previous studies to argue for why your research is new or innovative. The abstract should also briefly describe your methods. In other words, who did you interview? Where did you conduct your observation? How many did you conduct? For how long did you conduct your observations? Clearly describing the purpose of your study and the methods will help quickly orient other researchers to what your research is about.

The most important part of the abstract, though, is the description of the findings. Your audience of other researchers needs to quickly see what your research found and judge for themselves whether or not they want to look at your study further for their own research purposes. Consequently, the more detailed you are in describing your findings in the abstract the better.

Should You Use Headings?

Headings are most often used to label sections of a qualitative study. With headings, your audience of busy researchers quickly knows which sections of your study to read and can more easily navigate your article. They also serve as a type of transition between sections because usually there are not formal transitions between sections like there would be in a traditional essay. For instance, the abstract and introduction sections are usually labeled with a heading. In fact, in some studies, every section of the study has a heading. However, many times sections will also be combined and/or not clearly labeled with a heading. If the results and discussion sections are separated, they usually are labeled with clear headings. If the results and discussion sections are combined, then usually sub-headings that list major points of data analysis highlighting the coding scheme are used.

What Voice Do You Use in Writing about Qualitative Data?

In qualitative research writing, there is no hard and fast rule on voice, or the use of first or third person. First person (the use of I) and third person (the use of he, she, or they) voice are both used in writing for the social sciences, business, and education. Consequently, the choice to use first or third voice depends mostly on audience—the type of academic forum you wish to publish in or the teacher you need to write for. For instance, for the journal *Women and Language*, Lynn Cockett and Johanna Holtan (2007) use first person in their study on female athletes. "We examined women athlete**s** in three different contexts: on the playing space, in a

focus group, and in the examining room of a college training room." Using first person in academic writing is probably the most rhetorically honest because it indicates that you, as the writer, also conducted your research.

Using third person voice, on the other hand, sounds more objective. Third person puts the focus on the research and not on the researcher. However, third person often makes it sound as if the research conducted itself because third person makes it easier to erase the writer and the researcher. For example, for the journal, *Sex Roles: A Journal of Research*, Sally Ross and Kimberly Shinew (2008) write in third person: "Semi-structured interviews were conducted and analyzed to investigate how seven gymnasts and seven softball players competing in NCAA Division I athletics view and contend with a 'female/athlete paradox.'" Because of the use of passive voice, it is unclear who is conducting and analyzing the interviews. Responsibility for conducting and analyzing the interviews is removed from the writers. However, because of this, the research sounds more objective, as if the research could be conducted by itself, free from human error and bias.

Some social science academic journals strive to emulate the physical sciences' use of third person voice because it sounds more objective. However, there is still debate about the use of first or third person voice in physical science journals as well. While third person voice sounds more objective, people still conduct and then write about studies and experiments—people who make mistakes and can be prone to bias.

The use of second voice (you) is hardly ever used in academic research writing.

Discussion and Practice

1) Examine the abstract from the Scholarly Example below—Yasemin Besen's "Exploitation or Fun?" What voice does Besen use? Knowing that Yasemin Besen is an anthropologist who published this article in the *Journal of Contemporary Ethnography*, why do you think that she chose to use this voice? Skim the first few pages of the article. What voice does Besen use in the article? Why?
2) What are some other advantages and disadvantages of using first person voice in a scholarly research article? Why?
3) What are some other advantages and disadvantages of using third person in a scholarly research article? Why?
4) Why do you think second person voice (using "you") is hardly ever used in any scholarly writing (no matter the discipline)?
5) What voice do you think is the best for writing a scholarly research article? Why?

Scholarly Example

The article below, "Exploitation or Fun" written by Yasemin Besen, is a scholarly article written about qualitative research. It is an example of the type of scholarly research article that this chapter strives to teach you how to write. It specifically illustrates the writing advice given in the previous section, "How Do You Write about Qualitative Research?" To better see the writing strategies being used in the article, pay special attention to the call-out boxes on the side which will explain them. Of course, the scholarly example below is also written for an audience of researchers, so pay particular attention to the rhetorical writing strategies used in each section to make Besen's qualitative research appear important, relevant, and new to this audience. Look at what each section of the article—the abstract, intro, methods, and results/discussion sections—accomplishes as well as the overall format, structure, and style of the article as a whole.

The following selection is an ethnography written by Yasemin Besen and published in the *Journal of Contemporary Ethnography,* an academic journal that examines ethnography within a range of disciplines. The journal has featured ethnographies that examine cultural practices as diverse as baseball wives to how social control is used in a home for delinquent boys. Yasemin Besen is an assistant professor of sociology at Montclair State University.

Exploitation or Fun? The Lived Experience of Teenage Employment in Suburban America

Yasemin Besen
Montclair State University

Abstract: Objectivist scholars characterize typical teenage jobs as "exploitive": highly routinized service sector jobs with low pay, no benefits, minimum skill requirements, and little time off. This view assumes exploitive characteristics are inherent in the jobs, ignoring the lived experience of the teenage workers. This article focuses on the lived work experience of particularly affluent, suburban teenagers who work in these jobs and explores the meaning they create during their everyday work experience. Based on a large ethnographic study conducted with the teenage workers at a national coffee franchise, this article unravels the ways in which objectivist views of these "bad jobs" differ from the everyday experience of the actors. The findings show that from the perspective of the teenagers, these "exploitive jobs" are often seen as fun, social, and empowering and are free spaces where they can express their creativity and individuality. These findings demonstrate the importance of employing a constructionist view in understanding teenage employment and inequality.

> People think I do this for the money. "Oh, you are a typical teenager," they say. "You need a car and a cell phone and clothes and stuff." But . . . it's not like that. I do [buy] stuff, but I don't work here to pay for all that. It's fun, you know. This is where I hang out.

Comment [R1]: The abstract summarizes the entire study, allowing researchers to quickly skim to see what the study is about and gives them reasons for why it would be relevant for them to read the study further.

Comment [R2]: This first sentence shows how you can briefly summarize the previous research on your research topic in the abstract; this part of the abstract serves as a mini-lit review.

Comment [R3]: This sentence shows what is lacking with the previous research, building the gap or the need for the author's research.

Comment [R4]: This sentence clearly states the purpose of the research.

Comment [R5]: This part of the sentence briefly describes the research methods that were used, illustrating how you should briefly state your methods in the abstract.

Comment [R6]: This part of the sentence clearly states how this study will fill the gap in the previous research.

Comment [R7]: This sentence clearly shows how to state the findings of the study in the abstract. Stating the findings in the abstract is arguably the most important part of the abstract because it quickly explains to other researchers why this research is important.

Comment [R8]: This sentence explains how and why the findings of the study are relevant for future researchers to investigate further.

Comment [R9]: Often ethnographies will begin with dialogue and/or a descriptive portrait of one of the interview subjects. They may also begin by setting the scene – describing the setting of the place where their observations and interviews take place. This portrait or setting sets the tone and focus for the ethnography and may begin to forecast the findings. It also may serve to grab the reader's attention. While a paragraph like this is not essential in all ethnographies, it might give you some ideas for beginning your own ethnography.

Jenny,[1] an 18-year-old college student, spoke these words to me as she emptied an overstuffed garbage bag at the end of her double shift. Jenny, like many teenagers, works everyday at the local coffee franchise after school. She commutes an hour and back every day after school, where she serves endless lines of demanding customers, mops floors, wipes tables, and carries loads of garbage. In her typical shift, she is asked to follow a detailed script and perform every task according to the "manual." She does all of this work for minimum wage and no benefits.

Operating within an objectivist perspective, many sociologists would interpret these working conditions as undesirable and characteristic of "bad" jobs: highly mechanized, with minimal skill requirements, low hourly pay, and long shifts. Ritzer (2000) depicts such service work as "McJobs" that are boring and dehumanizing, in part because they involve deskilled, routinized labor that largely eliminates employee discretion and creativity. Such jobs are controlled by detailed rules and standardized techniques imposed from above.

> From the employee's perspective, McJobs are irrational because they don't offer much in the way of either satisfaction or stability. Employees are seldom allowed to use anything approaching all their skills, are not allowed to be creative on the job. The result is a high level of resentment, job dissatisfaction, alienation, absenteeism, and turnover. (Ritzer 2000, 137)

Robin Leidner (1993), in Fast Food, Fast Talk, similarly depicts these jobs as detailed and scripted, in which the workers are left no autonomy and power.

Because objectivist scholars assume such jobs provide little intrinsic satisfaction, the reasons for working have been reduced to economic gratifications. That is why authors often assume these "bad" jobs are performed by the economically deprived: teenagers working after school, especially under severe conditions, are traditionally thought to be working to supplement their income and put themselves through school.

Surprisingly, Jenny, like all the other teenagers working at the coffee shop I studied, deviates considerably from these preconceptions. While such jobs have typically been associated with and taken up by the working classes, Jenny and her coworkers, with their fashionable hairstyles, designer clothes, trendy accessories, brand-new cars and high-technology cell phones, are far from working class. In fact, according to the U.S. Department of Labor's Report on the Youth Labor Force (Herman 2000), a majority of the current youth labor force is comprised of teenagers from higher socioeconomic backgrounds. According to the report, only 15% of teenagers in the lowest income quartile work while employment increases substantially as the family income increases.

In both preconceptions and analyses of the youth labor market, the focus has been on the work experience of teenagers from lower socioeconomic backgrounds. While the work experience of economically deprived teenagers is more visible to many researchers—and is a valid and important subject for research—such a perspective overlooks the lived experience of much of the current youth labor force. The perspective of these affluent teenagers is also worthy of study: how they experience what are referred to as "bad" jobs, and how they perceive this

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Comment [R10]: This next section illustrates how you would write an introduction for a qualitative study. It briefly summarizes the literature review to establish the importance of this research study. It then clearly states the purpose of the study – what the study is trying to examine – and then ends by explaining why this study is relevant for other researchers reading the article.

Comment [R11]: This sentence summarizes the previous research on the topic – low paying service jobs – which begins the literature review.

Comment [R12]: The literature review gets more specific here. Specific points from previous research are paraphrased and quoted. This also illustrates how you can cite these sources in your own paper using APA citation style.

Comment [R13]: This paragraph shows what is lacking with the previous research, building the research gap – the reason for why this research study is needed.

Comment [R14]: This paragraph develops the research gap more, explaining specifically how this ethnographic research study differs from previous research and also arguing further for why the ethnographic research presented in this article is needed.

exploitation, are often neglected.

Furthermore, bringing in this sometimes ignored portion of the current labor force not only provides a more comprehensive understanding of the current youth labor force but also offers a unique opportunity to study motivations to work from the actors' perspective. If, in fact, these "bad jobs" provide only economic benefits (and meager ones at that), then why would affluent teenagers end up performing such jobs? Such an analysis will explain how "objective" inequalities are interpreted and justified in the everyday subjective experience of these workers' lives.

This article focuses on the lived experience of a large segment of the youth labor force—affluent teenage workers in suburban America—and looks at the everyday experiences of work from the perspective of the actors as they define and understand their seemingly inegalitarian and exploitive occupations. In doing so, I hope to show that inequality and exploitation are socially constructed interpretations (rather than inherent meanings), and that scholarly analyses of these concepts can benefit if they are based on the everyday perspectives of actors rather than outside observers (see also Gubrium and Holstein 1997; Harris 2000). Such research is also important from an economic perspective, as it focuses on a substantial portion of the labor force filling service sector jobs in America today: affluent, suburban teenagers. As Chris Tilly (1995) argues, youth constitute a substantial portion of the current labor force as they perform an important part of all service sector jobs.

The prevalence of teenage labor in the United Stated is a result of a number of factors. First, the American economy has shifted to a predominantly service- and retail-based economy. Between the 1940s and mid-1970s, the service and retail sectors combined created 15.8 million jobs: 9.3 million in the service sector, and 6.6 million in retail (Ginzberg 1977). While the shift from production to service and retail created an unprecedented number of jobs, most of these jobs were what Ginzberg (1977) referred to as "bad jobs." Greenberger and Steinberg (1986) characterize these jobs as having low wages; odd hours; irregular shifts, including nighttime and weekend work; seasonality; high turnover; and absence of benefits and promotions.

Because these jobs are assumed to be exploitive by nature—while providing few benefits to employees—work for these teenagers is typically reduced (in analysts' thinking) to economic need. That is why little research considers why teenagers would take up such positions. The lived experience of teenage employment from their perspective thus remains unexplored.

Although a rich sociological literature exists on teenage employment, it focuses on the effects rather than the causes of employment. The studies of these effects have included analyses of teenagers' development (Finch et al. 1991; Greenberger and Steinberg 1986; Mihalic and Elliot 1997; Paternoster et al. 2003), school performance (Bills, Helms, and Ozcan 1995; D'Amico 1984; D'Amico and Baker 1984; Greenberger and Steinberg 1986; Marsh 1991; Mortimer and Finch 1986; Steinberg and Dornbusch 1991), acquisition of human capital and skills (Gardecki and Neumark 1998; Mihalic and Elliot 1997; McNeal 1997; Pabilonia 1997; Ruhm 1997; Smith

Comment [R15]: This paragraph brings up a second research gap – another area of research that has not been previously done that this study will explore. While you will not necessarily have to bring up more than one research gap in your own paper, academic scholars will often bring up more than one research gap to build an extra strong case for why their research is needed and should be read by other researchers.

Comment [R16]: This paragraph explores a third research gap.

Comment [R17]: This part of the paragraph illustrates how to clearly state the research question and the purpose of the qualitative study in your own paper. It comes at the end of the research gap because the new research in this article will "fill" the previously stated research gaps.

Comment [R18]: This part of the paragraph illustrates strategies for how to argue for why your research is relevant to other researchers reading your article. There are many reasons why research can be relevant or helpful to society, so there are many different ways to argue for this. But in some way, you should explain why your research helps people in your introduction. Along with your research gap, showing how your research can be helpful to others will show your audience why they need to keep reading about your research.

Comment [R19]: This next section is the literature review. While the literature review has already been summarized several times, the actual literature review is much more detailed.

Comment [R20]: This paragraph establishes the historical background of the research topic.

Comment [R21]: This paragraph shows what is lacking in previous research.

and Rojewski 1993), and deviant behavior (McMorris and Uggen 2000; Mihalic and Elliot 1997; Paternoster et al. 2003). While many sociologists have explored the effects of teenage employment, its causes have been left to economists. Coming from this perspective, researchers have studied the causes of teenage employment through macrolevel economic factors such as governmental policies (Neumark and Wascher 1992), minimum wage regulation (Gustman and Steinmeier 1988; Card 1992; Wellington 1991; Neumark and Wascher 1992), and fluctuations in supply of, and demand for, teenage labor (Pease and Martin 1997; Card and Lemieux 1997).

While extensive work exists on the causes and effects of teenage employment, stemming from both sociology and economics, the most central actors of teenage work—teenagers themselves—have been left out of the study of teenage employment. Interestingly, along with the near exclusion of teenagers, the work experience has also received scant academic attention. Although teenage employment has been studied extensively from the perspective of many individuals and institutions such as the parents, teachers, and employers, the perspective of teenagers has been neglected.

To bring this viewpoint into focus, my article looks at the lived experience of these "bad" jobs from the viewpoints of the teenagers who do them (Wacquant 1995). It also identifies the mechanisms though which they define their work activities and studies what these seemingly exploitative jobs mean to the actors.

Many sociologists consider these jobs to be exploitive, highly automated, alienating, and requiring no skill (Greenberger and Steinberg 1986; Tilly 1995; Ritzer 2000), concluding that the only reason to take them is to make money. While these jobs are not attractive for adults and are considered exploitive and bad from an objectivist perspective, the very same jobs are considered acceptable from the perspective of the teenagers. It is not surprising that corporations would want to employ teenagers, especially ones from affluent backgrounds. Unlike the adults who would otherwise fulfill these positions, affluent teenagers are less concerned with having benefits, and the less than full-time hours are less problematic for teenagers. Therefore, low wages and lack of benefits that are typical characteristics of exploitive jobs are not necessarily considered exploitive by the teenagers who come from affluent backgrounds with ample allowances and health benefits through their families.

My article looks at the everyday experience of these "bad" jobs and argues that, from the perspective of the actors, they are not simply jobs to be endured for economic reasons. Rather, I have found that these jobs, ironically, provide opportunities for workers to have fun and exercise their individuality, control, authority, and power.

Methods

This article is based on extensive ethnographic fieldwork I carried out in 2001 to 2004 in two branches of a national coffee franchise in two affluent suburbs of a large city, both of which are

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Comment [R22]: This paragraph summarizes in detail the previous research on this topic, but it is also more than a summary. The summary of previous research also serves to showcase what is lacking in it. This part specifically illustrates how to use summary to build an argument for why your research is new in your own literature review.

Comment [R23]: This paragraph illustrates how to clearly state the research gap.

Comment [R24]: This paragraph illustrates how you can clearly states the research question and purpose of the research study – what it will examine – in your own paper. It is especially important to clearly state the research question and purpose of your research so that your reader does not get lost, just as it would be important to clearly state a thesis in a traditional essay.

Comment [R25]: This paragraph explains specifically how this research study will fill the research gap – how it will study what previous studies have not. This paragraph illustrates how you can also clearly state how your research will fill your research gap in your own paper.

Comment [R26]: The methods section describes how the research for this ethnographic study was conducted.

Comment [R27]: This describes when the research was conducted.

predominantly white with a median income of $70,000. With their economic and ethnic-racial composition, these suburbs offer representative examples of white, affluent suburbs.[2] While my research sites are not representative of all teenage jobs and it is important to acknowledge the idiosyncrasies of all jobs, I believe they provide useful examples as well as sources of inspiration for future research. The coffee shop I studied is probably similar to many teenage jobs, but other occupations—such as those involving fast food rather than coffee, or those that are found in urban areas—may differ substantially and also deserve ethnographic attention.

My main source of data stems from two sources. First, I draw on a vast body of nonparticipant observations collected at the two branches. Throughout the duration of my ethnography, I observed workers in 1- to 8-hour shifts, taking detailed fieldnotes. My notes focused on the detailed description of the tasks performed, recording of the interaction and dialogue between the coworkers throughout the shift, and capturing their interaction with the customers. My observations included both weekday and weekend shifts; morning, afternoon, and night shifts; opening and closing shifts where the managers are present, and other shifts where they are not; as well as shifts where teenagers are scheduled to work together and ones where they work with older employees. I started to record these observations first as a researcher sitting at a close table at the beginning of my ethnography, but with the help of key informants and time, I gained the confidence of the teenagers and started to "hang out" at the counter with other friends of the teenagers who were working, sometimes just observing from the side and sometimes going behind the counter to help them. Such mobility allowed me to try to capture the work experience from different perspectives.

In addition to nonparticipant observations, I have relied heavily on semi-structured, in-depth interviews I conducted with 40 college student employees of the two coffee shops. The teenagers I interviewed were all students who worked part-time or full-time at the coffee shop. Sixty percent of my subjects were female, and 40% were male. The majority of the subjects were white (except for one Asian American employee and one of Indian American origin), and all subjects identified themselves as middle or upper-middle class. The subjects were all employees of the coffee shop during some or all of the duration of my ethnographic study. Every employee who was a student (full-time or part-time) and who was also a teenager was interviewed in several waves. I had secured contacts with two key informants through the university, both of whom worked at the coffee shop. These key informants have provided me access to the other workers.

My face-to-face interviews varied in length from 1 to 2 hours. Most of the respondents were interviewed again at different intervals. They are complemented by innumerable informal conversations, most of which took place in various corners of the coffee shops and at the teenagers' schools. I interpret the interviews and the conversations in light of my extensive fieldnotes.

In the following six sections of this article, I highlight central dimensions of workers' experiences with their jobs, comparing their interpretations with those of objectivist

Comment [R28]: This part of the sentence describes where the research was conducted and the type of people that were researched, two important things to mention in your own methods section as where you conducted your observations and who you interviewed, your research participants, will definitely affect your research findings.

Comment [R29]: This part of the paragraph offers a rationale for picking this specific research location. Explaining why you chose to interview a certain person or observe a certain place is always an important thing to include in your own methods section.

Comment [R30]: This sentence describes how the researcher conducted her observations.

Comment [R31]: This sentence describes in specific detail what the researcher was looking for in her observations. It is especially important for you to be as specific as possible like this in describing what you are actually looking for your observations as we all tend to look for different things when making observations.

Comment [R32]: This sentence describes when the researcher conducted her observations. Time of day is important to mention in observations because it impacts what happens at a scene.

Comment [R33]: This part describes in more explicit detail exactly how the researcher conducted her observations.

Comment [R34]: This part explains the researcher's rationale for conducting her observations in this way. It is always important to explain the reasons for why you conducted your research in the way that you did in your methods so that your audience can better understand your research choices.

Comment [R35]: This part of the sentence defines what type of interview research was conducted.

Comment [R36]: This part of the paragraph explains exactly who the researcher interviewed, which is always an important part to add in any methods section discussing interviews.

Comment [R37]: This sentence explains in more detail how the researcher conducted her interviews.

Comment [R38]: This part explains in further detail how the researcher conducted her interviews.

Comment [R39]: This part of the paragraph explains how the researcher interpreted her data from her interviews.

researchers and theorists. Then, I discuss the issue of exceptions before proceeding to my conclusion.

Power and Control

Greenberger and Steinberg (1986) characterize typical teenage jobs as requiring no skills and creativity, highly mechanized, and low paying. Ritzer (2000) argues such jobs leave virtually no space for creativity. The coffee shops in which I carried out my research seem to fit that description, at least at first glance: the teenagers who work there are required to be at their shift on time and not leave the premises during their shift, save for a 15-minute break during which they are allowed one drink. Their tasks for each shift are strictly codified, described in detail in the employee handbook. Even what they are supposed to say to the customers is scripted. From an objectivist perspective, it would seem that the detailed scripts and organization of this occupation, like other service sector jobs, mean that the individual workers hold little power. However, from the perspective of the teenagers, work at the coffee shop is "not like that." The meaning of these jobs, therefore, is not inherent (Blumer 1969), as with other situations that sociologists define as unequal or exploitive (Harris 2000). Amy, a 19-year-old college student, describes a typical shift where she is in charge of the whole place. For her, getting to the coffee shop on the day of a blizzard despite her 4-hour commute and missing school was extremely important: she felt that if she didn't show up, the shop could not function and serve coffee to customers on a cold day. "No one notices if I miss a class or two," she says, referring to the large university where she is a freshman, "but it's different here—they need me." The fact that her tasks are specifically spelled out does not lead her to feel constricted, but rather gives her the feeling of being needed and being in charge of that specific task.

The sense of control over tasks does not come solely from the strict definition of those tasks, but also from the relative power the teenagers have over their work environment. Josh, a 19-year-old student, tells me he feels "in control of everything" throughout the shift because he gets to make the "important decisions." Important decisions, according to Josh, are not the ones concerning the business of the shop: coffee or operating the cash register. He doesn't mind those being strictly defined: in fact, he is happy that those "unimportant" things are clearly defined, so he does not have to spend his time worrying about how to make coffee or what to say to the customers. Rather, he finds freedom and control in the decisions concerning his clothing, appearance, shift schedules, and music. One of the reasons he chose to work at the coffee shop was that he could dress in almost the same way he normally does—in casual khakis and simple T-shirts. If you ask Monica, a fashion-conscious freshman, the uniforms are so fashionable that it's like a "GAP commercial." If she had to wear nylon uniforms, she tells me, she wouldn't want to work there at all. Unlike workers at some fast-food establishments, who do not want to be seen in their uniforms, Monica says she wears her work clothes even after her shift is over. Besides, she adds, "we can accessorize." One of the reasons why Monica wanted to work at the coffee shop was the freedom she had with her accessories: in her case, long nails and her signature South Asian jewelry showcasing her ethnic identity. None of these were things she wanted to give up for a job. Josh agrees that work is a place where he feels

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Comment [R40]: This paragraph serves as a transition to the results/discussion section. It explains exactly what will come in the rest of the article. Often academic writers write these type of transitions between chapters or sections to explain exactly what they are going to do in their piece. This serves to help guide the reader, especially if the analysis is lengthy and complex.

Comment [R41]: This is the Results/Discussion section. While ethnographies may be written with a results section separate from the discussion section, this ethnography combines both. Data is presented and analyzed together. This section illustrates one approach to writing about your qualitative research data in your own paper.

Comment [R42]: Notice the headings that serve to highlight each point of analysis. Headings like this also emphasize coding categories, or categories that show how the data was analyzed. Obviously, power and control were important recurring themes in both the interviews and observations. The headings also serve as transitions between points. Headings like this highlight each main point of analysis. They are especially important to utilize if you are going to combine your results and discussion sections, as this article does.

Comment [R43]: The research that is going to be used to analyze the data is introduced. How the research is going to be used in the analysis to come is also introduced.

Comment [R44]: The observational and interview data is then presented as evidence to prove the point that the research sources are making, much as a text is used as evidence in text-based research. In this way, data is used to support or counter a point. When you discuss your own analysis, you will also want to be this specific in supporting it with details from your observation or interviews.

Comment [R45]: Other sources are brought in to counter the point that the previous sources made. Sources here are also used to help deepen the analysis.

Comment [R46]: Data is again presented as evidence to prove this new counterargument being made with these new sources. Notice that this data is much more specific. Good qualitative data is specific. Observations are intricately detailed and interviews should be quoted verbatim as much as possible when you analyze your data in your paper.

Comment [R47]: Finally, the writer interprets the data, explaining more specifically how it proves the countered point being made by Harris and Blumer.

accepted. In most places, his tattoos and numerous piercings—on his eyebrow, lip, and ears—were constant sources of conflict. "School, parents, friends," he says, were not too happy about his appearance. When he came into the coffee shop as a customer, however, he felt right at home: the girl who served his coffee had similar piercings.

In addition to the freedom to express themselves through their appearance and clothing, many of the teenagers who work at the coffee shop feel that they are in control of their activities during the shift. While the activities throughout the shift are described in detail in employee manuals and are often highly scripted, from the perspective of the workers, they become creative acts. Josh tells me he doesn't mind that the job is so well defined and scripted: that means that it doesn't leave much time for worrying about the job, so you can actually enjoy your shift. "We can pick out any CD we want," he adds. The collection of music and their freedom to choose from the collection are very important to these teenagers because the music decision is, as Josh puts it, "the important stuff."

"We can also schedule the shifts however we like," Kelly says. Kelly is an 18-year-old student who just started college. For Kelly, scheduling her shifts with her friends was a paramount concern. She says that she and her two best friends, Kirsten and Mel, who also work at the coffee shop, try to schedule their shifts so they are able to spend time together while at work. Because of their hectic schedules, they often have trouble getting together, so working at the same shift is an opportunity for them to socialize. "Sometimes," Kelly adds, "I schedule my shift to see Ben," referring to her boyfriend who works at the pizza place next door, so that they can spend time with each other while she is at work.

Decisions about clothes, the accessories they use to express their personalities, music, and shifts are the issues that matter to the teenagers who work at the coffee shop. Thus, their lived experience of a work shift full of scripted responses and routinized button pushing is not experienced as one of rigid restrictions, but as one where they make the decisions—or at least the decisions that "matter."

Lack of External Authority

Rigid rules and restrictions, repetitive work, and detailed, scripted interactions with customers are often presented as characteristic features of service sector jobs (Tilly 1995). Implicit or explicit in such analyses is the idea that workers are subjected to external sources of authority and control, usually represented and enforced by on-site managers and quality-control inspectors. Contrary to these preconceptions, the teenagers at the coffee shop characterize their work experience as being absent of domination, control, and authority. While there is a "supervisor" scheduled to work during every shift, Josh tells me that "she is not really like that." That is because the supervisor is Jenna, an 18-year-old college student, who is also one of his closest friends. The "manager"—who is usually (but not always) an older and longer-term employee for whom the coffee shop is a career—is present only during opening and closing shifts. The remaining shifts are supervised by Jenna and Anna, another 19-year-old college

Comment [R48]: Again, more data is presented as evidence. In qualitative research, the more data you present in detail as evidence, the more credible the conclusions you draw from your research will be.

Comment [R49]: The analysis in the next sections follows the same structure as this first section on power and control.

student. Because the supervisors are their peers and, in most cases, their friends, most of the teenagers who work at the coffee shop do not feel like there is a boss on the premises. "It's more like hanging out with friends," Jenna says. "I'm technically the supervisor, but . . . they're my friends, you know."

Among themselves, Jenna tells me they don't feel like there is a hierarchy: she says they all "hang out." "No one is assigned to one task," she says, and hence no one is singled out to be in a separate place. Rather, they all hang out behind the counter at what they refer to as the "bar" area. Because there is no physical separation and restriction, the teenagers feel free to move about the shop.

The absence of formal occupational authority in the workplace is not the only form of freedom at the coffee shop. The workers feel that the coffee shop is a safe haven insulated from other forms of authority as well. As Josh says, it's not only a great hangout place, but also "my parents are OK with it." Like most teenagers who work at the coffee shop, Josh says one of the advantages of working is that the workplace is insulated from parental restriction and authority. He complains that his parents "always tell him what to do," but when he works at the coffee shop, they do not ask any questions. Chores and even homework become secondary considerations when Josh has a scheduled shift. "Even the teachers are nicer," Josh explains, referring to his professors. Because Josh spends so much time at the coffee shop, he often misses classes and, on occasion, tests—like many of the other workers at the coffee shop. However, he observes that his professors are much nicer to him because he had to work. Work, therefore, offers a space absent of authority—employer, parent, and teacher—and provides the workers with a feeling of control over their activities.

Creativity

The feeling of control and authority also stems from the use of creative skills in these jobs. Traditional accounts characterize these service sector jobs as requiring minimal skills at best (Ritzer 2000), but this is not how the workers see it. While credentials, experience, and skill requirements are limited in these jobs, from the perspective of the teenagers there is more to it than pushing buttons. Teenagers at the coffee shop do not perceive their work experience as one where they lack skills but rather as a space where they can make use of their skills and their creativity. Jenna tells me there is a lot more to coffee making than simply the button pressing described in the employee manuals. "It requires a lot of skill and concentration," she says, adding that they have informal foam-making competitions. Throughout the shift, they compete to see who can make the best foam: a good cup is a matter of pride. They all agree Anna makes the best foam. Anna takes this task very seriously: "Your milk has to be the perfect temperature and amount," she says as she elaborately describes how she goes about making ideal foam. Tasks like topping coffee with foam may appear to require no skill to an objectivist analyst. However, these teenagers define this (along with other aspects of their job) as something that utilizes their skills and concentration. "It's not just the foam," Anna asserts. Even the most straightforward tasks, like making regular black coffee, require engagement and creativity.

"Anybody can make coffee, but making good coffee requires a lot of skill."

Individuality

By working at the coffee shop, these teenagers not only feel like they're engaged in creative activity, but also feel that work is a way for them to express their individuality. Although typical service sector jobs are portrayed as jobs where employees are expected to look uniform and standardized (Ritzer 2000), for many teenagers, work is a way to express their individuality. Monica says that she feels anonymous and alienated at school, as she goes to a large state school with big classes. At school, nobody knows who she is: she is just one of the students. However, working at the coffee shop distinguishes her; among her friends from school, she is the girl who works at the cool coffee shop. Not only does her work provide her with a distinct identity, but it also gives her and her friends something to talk about. Before she started working, Monica often felt left out because her friends all worked and wanted to talk about their jobs. One of the reasons why she got a job was to give her something to talk about that was "hers."

Work provides these teenagers with a sense of identity not only at school and with their peers, but also throughout the work shift. According to the teenagers who work at the coffee shop, the uniforms they have to wear do not take away from their individuality. "This is what I normally wear anyway," says Josh, referring to the khakis and casual T-shirt that serve as his uniform. Moreover, employees' accessories and personalized items like Anna's manicured nails, Josh's piercings and tattoos, and Monica's ethnic jewelry act as important signifiers of the teenagers' identities. In displaying these symbols, the workers at the coffee shop inform customers and employees of their interests and hobbies. Josh, for instance, is a first year theater major and wears a necklace that resembles tragedy and comedy masks. These kinds of symbols are indicators of the teenagers' personalities and serve to smooth social interactions by giving information about themselves to everyone who comes into the store. Jenna tells me that these personality makers help workers meet people with similar interests. They also have developed other ways to communicate their interests. "Sometimes, instead of carrying or wearing your symbols, you can write them on personalized coffee cups," Jenna says.

Fun and Friendships

Through these signs and symbols, workers define and use the coffee shop as a place where they can meet new people. While the work experience is traditionally portrayed as being endured rather than enjoyed (Adorno 1994), for these teenagers work provides the opportunity to meet others in the area and socialize with friends (Besen 2004, 2005). Josh was only 17 when he moved to town for college, and remembers that although he was coming to attend a large university, it was difficult for him to meet new people. A university, he says, was too big and impersonal. He didn't feel as though his school provided much of an opportunity to meet new people or to hang out with his peers. He decided to go to college because everyone in his family did and "it's something he has to do." But socially, he didn't think the university would offer

him many options. "I didn't know anyone," he remembers, "so I thought work might be the best way [to meet new people]." Interestingly, even though he knew he wanted to work to meet people, he didn't plan it. As he explained, "I just came in to get coffee one day and I got a job with it." Instead of going through job listings, searching for contacts, and filling out long applications, he came in to get some coffee and the "manager," another college student, asked him if he wanted a job. The supervisor who hired him, Jenna, later remembers the day she talked Josh into getting a job at the coffee shop. She says that with his piercings, tattoos, and Radiohead T-shirt, he looked like a cool person, the sort that she would want to hang out with. After she saw his theater-mask-shaped accessories and chatted with him about his passion for acting as she served his coffee, she realized they were very similar and asked him if he'd consider working at the coffee shop. "You always want cool people to work here," she tells me.

The conversations in the shop are centered on trivial matters and consumption; in general, talk in the coffee shop is loud and is accompanied by endless laughter and giggles. Not only are the conversations loud, but they are also expressive: they involve waving at friends and hugging and kissing whenever the teenagers arrive or leave.

Throughout a typical shift, these teenage employees—dressed in causal clothes, standing at the bar under spotlights, and holding cups filled with legalized stimulants—laugh, giggle, and engage in endless, loud talk about trivial matters. As they make shopping lists, they shuffle through music with the teenagers who come into the shop as customers, deciding what to play over the store's stereo system.

The other teenagers they hang out with at the coffee shop are a heterogeneous group. It consists of the peers they meet at the coffee shop, the friends they are scheduled to work with, and other friends who stop by to visit with the workers. The coffee shop provides the social space for the teenagers in the suburbs to meet new people. John, a 19-year-old full-time student who moved to town for college, remembers when he started working at the coffee shop. "I'd just moved [here], and I didn't know anyone. So, I got a job." Like Josh, he remembers being intimidated, feeling lost in the large university and lonely in the suburbs. When John moved here, from all the way across the country, he barely knew anyone. He moved away from all of his family and friends and found himself in the suburbs, where teenagers lacked space for social interaction. John didn't know where to meet people and find friends, and says that this motivated him to work. He says that he believed that the teenagers who worked there would be "just like him." He not only made a lot of new friends there, but also met his boyfriend, Chris.

Most people there are from the same age group and share similar interests. Furthermore, the workplace gives them the opportunity to interact with each other in a small, personal space and get to know each other better. This is further facilitated by their clothing and accessories, which are geared toward introducing themselves and marketing themselves to their peers. John and Chris were working at the same shift and, like many other teenagers working at the coffee shop, used their accessories to share their interests.

Similarly, Josh says that he met most of his good friends, like Rachel, Jen, and Joy, through his work at the coffee shop. These four are not just coworkers, but also have become close friends over the time they have worked at the shop. They make sure to schedule their shifts together and spend a lot of time before and after the shifts. "They're not just colleagues or something, you know: we hang out all the time." As John says, "Where else can you meet people?"

Donna Gaines has characterized the lives of youth in the suburbs as a "teenage wasteland" (1990). Gaines justifies this label by referring to Satanism, suicidal tendencies, and so-called troubled teenagers. However, I found that for my respondents, suburbia was a "wasteland" because it was unable to provide opportunities for socialization and meeting new people. "You also get to meet other people," John said about his work at the shop. For the teenagers working at the coffee shop, coworkers are not the only friends to be made. There is a large group of premed students who regularly come to the coffee shop to study. This group of friends generally stops by the coffee shop at around 2:00 p.m. and sits in the "lounge" section to study and socialize. "That's how I met Dave," Kristen, a 19-year-old student, tells me. Kristen, with her endless chatter and jokes, has a very outgoing personality. Despite this, she says that she didn't have many chances for meeting people before she began working at the coffee shop. She says there is a constant flow of people into the shop and she enjoys being surrounded by so many different people. Dave, a 19-year-old student who spends almost every afternoon at the coffee shop and is Kristen's best friend, is a regular at the coffee shop. He usually takes a seat close to the bar, where Kristen works, and chats with her throughout her shift. During the breaks, they take smoking breaks outside together and often enjoy day-old pastries behind the counter. They are also joined by their friend, Joe, who brings leftover pizza at the end of the day from the pizza place where he works after school. In addition to the lack of opportunities to meet new people in the suburbs, the suburbs are also defined by workers as a social wasteland because of the limited space they offer for social interaction. At the shop, however, a typical shift is characterized by a constant movement of friends stopping by to hang out with the shop's employees. "It's such a convenient location, with my boyfriend working upstairs at the bar," says Kristen, whose boyfriend works as a bartender during shifts scheduled to coincide with hers. They see each other throughout their shifts and during breaks. With her boyfriend working upstairs, with her friends Joy and Jen working with her at the coffee shop, and with her best friend Dave visiting throughout the shifts, the coffee shop is for Kristen more a space for sociable interaction than it is a space for monotonous, oppressive work.

Among those who visit, there is a pattern, a set of informal norms, governing where the visitors stand in relationship to the employees. Usually, acquaintances who stop by for a quick chat hang out by the side of the counter and chat with the workers as they enjoy their drink. This resembles hanging out at a bar or a club. Closer friends not only hang out by the side of the counter but also sit down in the lounge area, where the workers on shift come by periodically to talk and hang out with them. The closer friends like Dave, or boyfriends like Chris and Ben, are seated adjacent to the bar, so that they are free to join in the conversation and mingle with the workers, in front of and behind the counter. Although he is not an employee, Dave often

goes behind the counter in order to help Kristen lift a heavy box or make coffee.

"Sometimes, we go out afterwards," Josh tells me, referring to Saturday night outings to clubs or parties, usually with Kristen, Joy, Rachel, and Jen. Right after the shift, the teenagers all go out, and the coffee shop provides a great place for meeting and preparing beforehand. This was evident at the shop during Halloween 2001. Jen, Joy, and Rachel all dressed up in their Halloween costumes, and not just during their shift: even those who weren't working that night were there to prepare, dress up, and make plans regarding a party after all of them were off work. Their friends, who stop by throughout the shift to get more information about the party, join them. "Which party are we going to?" asks a teenage boy in a Radiohead shirt as he stops by to get coffee. "The one at Gina's or Melissa's?" He hangs out by the side of the counter, chatting with Jen and Joy for 10 or 15 minutes as he finishes his coffee. "Gina's party is going to be better," Jen says. "Everyone's going to her [Gina's] party, but Melissa's party has a band." After extended deliberation, a number of phone calls, input from a number of friends and acquaintances grouped around the bar, and input from a number of acquaintances stopping by to ask about the party, they decide to go to Gina's party. "Great," the teenager in the Radiohead shirt says. He takes out a pen, scribbles something on a napkin, and hands it to Jen. "Would you give this to Michelle?" he asks. "She'll stop by later to ask about the party. Just tell her I'll be at the party at 9. She is around 5 foot 4—blonde with blue eyes."

As this example illustrates, the coffee shop is not only a sociable space for peer-to-peer interaction in the "social wasteland," where space for meeting people and social interaction is limited, but also a center for distributing information and leaving messages. The employees at this low-wage, service sector job are doing more than making lattes; they function as infor- mation brokers, making the shop a center in the centerless suburb. From my observations, it is no wonder that teenagers accept what objectivist analysts view as a bad job: in a very real way, it places them at the center of their peer group's social universe. "It's not just the parties," Josh tells me in reference to the importance of the shop in coordinating social activities. Most of the time, there are no house parties hosted by friends, and being at the shop becomes a social activity itself. The suburb does not provide many places where they can all go and hang out: so, after the shift, the workers often stay at the shop. There, they continue conversations with the employees coming on the next shift and with friends visiting the shop; they even occasionally perform odd jobs that would be part of their responsibilities if they were still "on the clock." For these youth, going to the coffee shop is not experienced as a negative or exploitive situation. Rather, it is one of the few ways for teens in the area to engage in social interaction, the employees as well as the visitors.

Consumption and Pay

For these teens, work is more akin to a leisure activity, like going to the movies or to a club, than it is an economic activity. Work, traditionally viewed as production oriented, is also a form of consumption in the context of suburban teenage labor. While this work facilitates consumption—the workers and visitors eagerly examine the merchandise for sale in the shop,

and compare notes on what they will buy—the work itself becomes an object of consumption. Few of the employees came to the shop looking for a job; they came, instead, for social interaction, and the money and benefits are almost irrelevant. Rather than spending their money—though they do that—they spend their time in order to interact with their peers, in the same way that their parents might have gone to clubs or lodges. Rather than work being a means to an economic end, the time they spend at work is an end in and of itself. These jobs are consumed along with other products teenagers consume and allow them to be associated with brands they desire. Jenny tells me she does not just work for money to "buy stuff." It does not mean that she does not buy stuff, though: she tells me "of course" she has a car and the latest-style cell phone and fashionable clothes, but she says the money she earns cannot possibly pay for all her consumption: her parents, she says, pay or help pay for all those things. It's one thing to purchase a branded item, but being associated with a "cool brand" though employment is priceless.

While objectivist analysts are correct that these jobs are typically associated with low pay and a lack of benefits, the low pay does not seem to be defined as an inequality or a problem for the teenage workers. There are two main reasons for this. First, as noted before, any economic gains from their labor are almost superfluous, as the teenagers work more for social reasons than for money. Second, and parallel with this, most of the teenage employees in the shop come from affluent backgrounds. Jenna tells me she does not need the money—her parents are both professionals and quite wealthy—but she says she would pay the company for the opportunity to work at the shop and to be associated with "such a cool brand." She says she could never work in a place if she didn't like the brand or enjoy its products. As she tells me, she was going to get the products anyway, and "it's good to get the discounts." For Jenna, working is no different from consuming the products of the workplace. As she puts it, "When you work somewhere, you are seen with the products," referring to the free coffee beans the store gives out every week to the employees or the one drink they are allowed per shift. For Jenna, it has to be a product she is proud to use and possibly show off.

Monica, a close friend of Jenna who started at the coffee shop just a month before I spoke to her, is also into shopping—not just clothes but stuffed animals, mugs, and coffee as well. Whatever she buys is from the brands she enjoys and sells to others. She tells me that her first paycheck went straight to buying stuff from the shop.

I would argue that the consumption element of the job is also present in how positions are marketed to potential employees. Rather than focusing on the benefits, pay, hours, or opportunities for advancement or experience, the ads ask customers if they "want a job with their coffee." In these ads, and ones like them, the job itself is marketed as a product, as an enjoyable experience to be consumed by the teenagers. Also, the marketing of these jobs is designed to reinforce the potential employees' consumption patterns. A job becomes a mean to obtain the goods sold at the store. The discounts for the coffee beans, chocolates, coffee mugs, travel cups, and stuffed animals sold at the coffee shop become an incentive to work. The job is marketed as a way to consume and associate oneself with the shop's brand name,

something teenagers feel happy rather than exploited to do.

Exceptions

While my findings suggest a pattern of enjoyment and fun among the teenagers I studied at the coffee shop, there are some instances where workers complained. During periods when work obligations increase—such as when overtime or double shifts are required—some teenagers do grumble, especially if these requirements interrupt their social interaction. When the coffee shop has unusually long lines that get in the way of chatting with friends, there is temporary uneasiness. However, just like other aspects of work, these obligations that hinder fun are reinterpreted to create a continuous meaning. For example, when I asked John how he handled his required double shifts one busy holiday season, he said this was an excellent opportunity to spend more time with friends! Therefore, while I acknowledge that teenagers' daily work experiences are not devoid of what objectivist scholars refer to by "bad jobs," I would argue that even these "bad" qualities tend to be perceived in a positive light by the teenagers, as they imbue even the most inconvenient qualities with positive, social meanings.

Another exception to the pattern of widespread contentment involved a less affluent worker who was not a teenager. Joann is a slightly older employee from a relatively lower socioeconomic background compared to the other students working at the coffee shop. Especially when her mother got ill and quit her job, she felt a greater need for money and started to be more concerned with getting benefits and working more hours. However, because the dominant culture of the coffee shop centered around fun (and related meanings), she defined her job along the lines of the other teenagers and started another job to earn money, keeping this one for social reasons.

Conclusion

My ethnographic study of two suburban coffee shops explored teenagers' lived experience of work. While these jobs are often portrayed from an objectivist perspective as exploitive with no control and authority, limited opportunities to use skills or express individuality, and low pay and restrictive shifts, from the perspective of the teenagers the lived experience of these jobs differs substantially. Teenagers who work in the coffee shop define their everyday work experience as one of free space—free of adult supervision where they can socialize, make important decisions, and be creative. The teenagers en-joy their jobs, in the interpretive sense of that word. They define and treat their work as fun—as a situation of consumption rather than mere wage-earning production. Thus, the simple but larger point that I draw from my analysis is this: situations that appear (to analysts) to be clearly unequal and exploitive may not necessarily be experienced that way by the persons involved. Daily experience of work is socially constructed—that is, created through people's interactions and interpretations. Teenagers act based on their perceptions of the job: in this case, these jobs are not perceived as "jobs" but rather as social spaces of interaction, devoid of external adult supervision, where they feel they have discretion and control. These findings regarding the suburban teenage workers of the coffee shop provide a necessary corrective to some of the taken-for-granted

Comment [R50]: Here the writer details exceptions to her analysis. Including exceptions to findings in research is always important. It is especially important in qualitative research because there are almost always at least a few exceptions – human behavior is just too varied and complex to be captured fully in only one or two patterns when coding data. There is almost always data that doesn't quite fit with the rest of the data and doesn't fit well or at all within the coding categories you create.

objectivist perceptions of work.

As Blumer (1969, 3-4, 11-12, 68-69) argues, meaning is not inherent. Accordingly, nothing is inherently equal or unequal. Power, exploitation, inequality, and similar qualities are meanings that people must define into being if they are to exist for those people. Borrowing from Blumer, Harris (2001) outlines a constructionist approach to studying inequality. He argues that a fundamental premise of this approach should be that "[p]eople act on the basis of their perceptions of inequality, if and when it is a relevant concern to them" (Harris 2001, 457). From an objectivist perspective, the jobs I studied lack power, control, creativity, and individuality, and are monotonous and dehumanizing. In short, conventional scholars define these jobs as "no fun." However, a constructionist perspective alerts us to the fact that the very same occupations may not be interpreted or viewed as such by the teenagers. The teenagers who work at the coffee shop interpret and define their jobs as fun and social, with copious authority and freedom to express their individuality. Moreover, the coffee shop functions as an important center for social interaction and is central to the flow of information between teenagers in their centerless suburbs. In addition to pushing buttons and making coffee, the employees of these shops distribute information, however trivial it may seem to an objectivist scholar, about which party is going to be better, which products and brands are in favor, and who is going to be where, and when. In this function and others, teenagers find their work is creative and engaging. The routinized button pushing is often extraneous to what they see as their really "important" functions, just like the money they receive for doing so.

My research shows that these jobs are not inherently "bad" or "exploitative," but that the actors transform these experiences into a different reality: one of social enjoyment, power, control, and creativity. From their view, the teenage workers do not feel exploited by the employers, but ironically feel like they are using these jobs for their own purposes. They are hired to push buttons and pour coffee, but fill their time instead with social interaction. They are paid, essentially, to do something that they would aspire to regardless: serve as the center of an otherwise centerless suburb. As such, the teenagers' experience of these "bad jobs" differs considerably from the objectivist understandings of exploitive jobs.

The enjoyment of these "bad jobs" by teenagers, however, does not mean that fun is really what those jobs are, or that there's really no need to improve those jobs. I am not using the idea that "Meaning is not inherent" to imply that "Everything is morally OK just as it is." Instead, I am using that constructionist premise to draw attention toward meaning making, toward how inequalities come (or not) to be defined, perceived, and experienced as such. I am arguing that in the study of work, too many scholars have imposed objectivist meanings, and that more attention could be given to the lived experiences of these sorts of teenage workers. Thus, constructionist research like mine does not necessarily undermine or discount the contributions of conventional research and the proposals for reform that emerge from it. However, my work does complicate the sometimes "totalizing" narratives that scholars such as Ritzer (2000) tell.

Implications, Limitations, and Directions for Future Research

It is important to acknowledge that not all employed teenagers come from backgrounds as privileged as my respondents'. The employees of the coffee shop were predominantly white and identified themselves as middle to upper-middle class. The marked absence of race and working classes from the coffee shop obviously places limits on my study. Teenage workers in the inner cities may be less likely to define their jobs as my respondents did. Moreover, the workers I studied were employed by a brand that is widely considered to be "cool." Clearly, not all service sector occupations share this trait. Hence, even in affluent suburban settings, it is likely that many teenager workers do not experience their work as my respondents did.

Representativeness and generalizability are important questions that can be raised about every ethnographic study; in the case of this project, I believe that the coffee shop portrays a useful example of the kind of jobs that teenagers take in the suburbs. It may be possible to generalize from the coffee shop to some other service sector jobs in the suburbs. If more researchers look, they may find what I have found. However, it is important to acknowledge that teenage workers in other kinds of businesses and in other areas (e.g., rural or urban) may or may not imbue their jobs with different meanings than what I found. It is an open empirical question. Unfortunately, my sense is that sociologists are not disposed to seeking out data that suggest that "workers may not experience their jobs to be as exploitive as we think they are." This is why studies such as mine can be helpful. It is necessary to round out the sociological portrayal of work by respecting and studying workers' lived experiences—even (or especially) those experiences that may be inconvenient to sociologists' accounts. On the other hand, there is a way in which my study can be used to complement and buttress conventional accounts of inequality. My findings suggest another way in which "the poor get poorer." There can be important consequences when affluent teenagers consider work a fun activity and choose to spend their after-school hours hanging out in these "bad jobs": their less affluent counterparts find it more and more difficult to find jobs.

This has important implications for the creation and reinforcement of existing inequalities, viewed from an objectivist perspective. Because "bad jobs" are enjoyed by teenagers who don't need money or benefits, employers may prefer them over their counterparts who are concerned with material benefits. Less affluent teenagers are less privileged in finding jobs, as available jobs tend to be located in the more affluent suburbs and not in the inner cities. However, even when they travel long distances, they are often turned down and replaced by their more affluent counterparts (Besen 2005; see also Newman 1999).

Thus, by understanding the work experience of these bad jobs from the perspective of the actors, we can provide a more comprehensive understanding of the perspective of the employers. By employing this particular group, they have the advantage of having a body of employees who do not mind the low pay and long shifts and who truly enjoy the atmosphere and the products of the coffee shop. Understanding the work experience, therefore, increases our understanding of the creation and reinforcement of "objective" inequalities and allows us

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Comment [R54]: Because all research builds upon previous research, research studies should end with an explanation of the limitations of the research as well as implications, and directions for further research. The limitations also usually dovetails into implications and directions for further research because researchers can usually improve upon what went wrong or was not accomplished. These paragraphs explaining the limitations and implications for new research illustrate how you should also discuss the limitations and implications for new research in your own paper.

Comment [R55]: This paragraph discusses the limitations of the study and illustrates how to discuss them in your own study.

Comment [R56]: This paragraph discusses the implications of the research, arguing for why this particular research study could be useful for other qualitative researchers. This paragraph can give you ideas for how to write about the implications for new research in your own paper.

to see the mechanisms through which employees give consent to working under such conditions (see also Burawoy 1979).

While constructionist analyses can be made to serve such conventional sociological ends, the constructionist perspective must be used carefully and not overly selectively. In the study of work, where work has been taken for granted as a set of activities performed for monetary gratifications, the constructionist perspective teaches us to be cautious of meta-narratives. When objectivist scholars characterize entire employment sectors with broad generalizations, they risk obscuring and distorting the lived experiences of the people they write about. In contrast, a constructionist perspective encourages scholars to investigate putatively unequal experiences to discover what they mean to participants themselves. In the case of my study, the inequalities that sociologists decry were not experientially relevant features of participants' lives. This critique is possibly true of many other occupations and many other social situations. Therefore, a constructionist view can benefit the understanding of work as well as many other sociological arenas that haven't yet fully been studied from the perspective of the actors.

Comment [R57]: This paragraph establishes the social relevance of this research study, arguing for why the study can help others besides just researchers – in this case, teen-age service employees. The social relevance for a study is always an important part to add at the end of any study.

Comment [R58]: This paragraph explains why this research is helpful for other researchers overall.

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Notes

1. All names are pseudonyms.

2. Although one of the suburbs houses a large state university, the suburb itself cannot be described as a college town because an overwhelming majority of the undergraduate population commutes. The other suburb, on the other hand, does not house a university, and the in-depth interviews with teenage working at both these branches show no differences in terms of their experience of work.

Scholarly Example Reading Questions

Writing Strategies

1) Audience: Who is the biggest audience for "Exploitation or Fun?" Why?

2) Purpose: What do you think is Besen's purpose in writing this article about her qualitative research? Why?

3) Abstract
   a. What is the purpose of the abstract for its audience?
   b. While thinking about the purpose of the abstract, what do you think is the most important part of the abstract for its audience? Why?
   c. What do you think is the least important part of the abstract for its audience? Why?
   d. What is the most detailed part of the abstract in "Exploitation or Fun?" Why do you think this is?
   e. What is the least detailed part of the abstract in "Exploitation or Fun?" Why?

4) Literature Review. The purpose of the literature review is to create context for your research. It establishes what research related to your own has been published in the past. However, most importantly, the literature review is also an argument. By establishing what has been published in the past, the literature review also gives you room as the writer to argue for ways in which your own research is new, original, and badly needed. Arguing for how your research is new is also called creating a research gap.
   a. What is the research gap(s) in "Exploitation or Fun?"
   b. Why is it important in writing about your qualitative research to establish a research gap? How does a research gap influence the primary audience of this article?

5) Methods
   a. Why is including a methods section important to the primary audience of a qualitative study?

       b. What are important things to mention in a methods section for a qualitative study? Why?
6) Results/Discussion
       a. Why are headings important in showcasing data in a qualitative research study? How do they help the audience read the article?
       b. How is the research data in "Exploitation or Fun?" organized? Why do you think it is organized in this way for its audience?
       c. Is the organizational structure used for the data in "Exploitation or Fun?" effective to read? Why or why not?
       d. In what other ways could you have organized this data?
       e. How were sources used in "Exploitation or Fun?" to interpret the data? Was the data interpreted effectively for its audience? Why or why not?
       f. In what ways was the data in "Exploitation or Fun?" interpreted like a text?
7) Conclusion
       a. The conclusion argues for the significance of the research. In other words, the conclusion very clearly answers the question "So what?" Why is it important for the primary audience to see the significance of the research at the very end of the article?
       b. What was the significance of "Exploitation or Fun?"
       c. Why are using sources to show the significance important?
       d. How are the sources used?
8) Limitations
       a. Why is including a limitations section at the end of a qualitative study important to the audience?

Research Methods
1) Methods
       a. What are the two types of qualitative research that Besen is undertaking in "Exploitation or Fun?"
       b. What are the benefits of using these types of research methods?
       c. What are the drawbacks or limitations of using these types of research methods?
       d. What other types of qualitative research methods could Besen have used?
2) Limitations
       a. What were the study limitations for "Exploitation or Fun?"
       b. What were some other potential limitations for this study that were not mentioned?

Students as Scholars

The qualitative study below was written by a first year writing student. It is organized a little bit differently than the previous scholarly example. In addition, there is no commentary on it. So, as you read it, compare it to what you have already learned about how to write a qualitative

study. In particular, compare it to Besen's scholarly article that you have just read. Although some of the sections are not titled like they are in Besen's paper, think about where you would include an abstract and methods section as you read. Also, try to find the introduction, literature review, results, and discussion sections. As you read, consider how each of these parts are structured. Finally, think of what you would potentially use and do differently from this example when you write your own paper.

Sara Ziffer wrote her ethnography as a first year writing student at the University of Denver. Her assignment was to write an ethnography about some cultural or social phenomenon in her local community of Denver. Sara was given eight weeks to complete this ethnography.

The Importance of Positive Employee-Customer Relations

Sara Ziffer
University of Denver

Introduction

Employee-customer relations are very important in a business. If customer satisfaction goes down, the business declines. Typically, when an employee is negative, the customer will have a bad experience and may not want to return to the company. In contrast, when an employee seems positive, the customer will have a good experience with the company and will be likely to return. A study on customer satisfaction by Dubé et al. showed that customers' pleasure increased when the company would have tastier food, have a larger menu variety, be attentive, be helpful, and had a quiet, private atmosphere (Dubé, Renaghan, & Miller, 1994). The results also showed that business opportunity increased with these beneficial qualities towards customers.

By observing a local Jamba Juice, I was able to study these important employee-customer relationships. Jamba Juice was an ideal place for observation because it provided an environment in which the employees and the customers came in contact frequently, therefore giving me plenty of opportunity to note their interactions.

In a letter to Jamba Juice customers posted in the dining room, the managers state that they intend to make their customers feel included in their "Jamba Family," greet their customers and have them feel welcome, and have their customers "feel better than when they walked in." Often, when I walk into a store or a restaurant, someone at the front will say hello and offer to help in some way. I wanted to know how and why employees interact with their customers in certain ways, such as saying hello when customers walk through the door or putting on a smile when communicating with them.

The questions I wanted answered are follows: why do employees emit positive attitudes when dealing with customers, and how do the employees exhibit these positive and friendly attitudes?

In order to find the answers, I observed Jamba Juice employees and customers and noted what actions employees take when dealing with a customer. I observed their interactions on different days of the week, for one to two hours at a time. By observing for at least an hour, I was able to observe the actions of employees through their shifts. These observations also helped to convey the overall picture of these employee-customer relations. An interview I held with the store manager helped to answer some direct questions I had about employees and their positive attitudes with customers. This interview gave an inside perspective on the employee-customer relations in Jamba Juice. The interview also provided insight on other behind-the-scenes work employees do in order to ensure their customers have a positive experience.

By using an interview with a Jamba Juice manager and taking observations of Jamba Juice's employee-customer relations, I was able to conclude how and why employees act positively when dealing with customers.

Study

Jamba Juice is a national chain of smoothie shops founded in 1990 in San Luis Obispo, California (Guttau, 2007). Jamba Juice specializes in smoothies, which are made with fresh fruit along with sherbet, yogurt, or fruit juice. The company focuses on fresh and healthy food choices. The Jamba Juice store observed is next to a college campus. The store recently opened in November 2007 and was designed to be modern, comfortable, and fitting for its customers in the campus's area (Guttau, 2007).

The overall atmosphere of Jamba Juice provides both the customers and the employees with a fun and colorful environment. In the letter to Jamba Juice customers, it is stated that the people, sights, sounds, and smells of the store should emit a positive energy. In an interview with Carol Mancini, the general manager of the local Jamba Juice, Mancini stated that the employees, the appearance, the lighting, the music, and the smell of the store should provide for the customer's satisfaction. She explained that the employees squeeze fresh oranges throughout the day in order to give the store a pleasant, fresh smell. During research it was also noted that upbeat music was constantly playing in the store, the chairs were in neon colors, the menu was set into different color-coded sections, and the employees all wore bright orange, yellow, or green hats. Even the names of a Jamba Juice smoothie sound fun and exciting, such as Strawberry Surf Rider, Caribbean Passion, and Orange Dream Machine. Paul Clayton, the CEO of the Jamba Juice Company believes that Jamba Juice should look colorful and exciting. He says, "One criticism I have about the New York City stores is that they are beige. We are not a beige brand – we are vibrant and colorful. (Boyle, 2007)" Mancini also explained that, in order to optimize the appearance of their stores, Jamba Juice builds different, full-size store models in a warehouse so that they are able to test certain characteristics of the store. The company brings in customers and asks them about their satisfaction with the store model. Jamba Juice clearly strives to create an enjoyable environment for their treasured customers. A study shows

that the atmosphere of a restaurant is one of the most important factors in determining where people want to eat (InSook & BongSoon, 2004). Producing a positive environment improves customer satisfaction because the customers feel comfortable and have a great experience.

Throughout the day, Jamba Juice employees kept their stations clean. Chairs were pushed in and kept organized, dirty blenders were brought to the back for washing, trash was picked up off the floors and tables, and the tops of tables and counters were wiped down with a cloth. This was mostly done when customers were not being served or not many customers were in the store. Cleanliness is an important factor in where customers eat, as one study shows (InSook & BongSoon, 2004). When customers see a clean environment to eat in, they feel comfortable knowing that the employees take care of their restaurant and their food, and will therefore take care of their customers.

Verbally welcoming customers also seemed to be an important factor in Jamba Juice's customer service. As soon as a customer walked into the store, at least one employee would give a pleasant greeting along with a cheery smile. When the customer reached the register to order, the employee would say a quick "hello" and possibly a "how are you?" or a "what can I get for you?" as well. Towards the end of a customer's visit, the employee would hand the smoothie to the customer and say something like, "here you go! Have a nice day!" These greetings can leave the customer feeling special and welcome because the employees acknowledge them when they enter and leave the store. Without a greeting a customer may feel like they go unnoticed, causing their overall pleasant experience to decline from the moment they walk in. A quick smile and a warm welcome can go a long way in brightening a customer's day.

Jamba Juice employees use a customer's name in order to make the customer feel unique and important. Mancini says that the employees try to use customers' names as much as possible. It was observed that names were used the most when an employee had finished making a smoothie and wanted to let the customer know it was ready. Other times that names were used include when a customer was getting charged ("your total Rachel is $4.70 today."), when a customer had finished an order ("Thank you, Rachel."), and when a customer was receiving a smoothie ("Rachel, here is your Pomegranate Paradise."). Research has shown that personalization is regarded highly important by customers (Walsh and Godfrey, 2000; Mittal & Lassar, 1996). Mittal and Lassar explain that customer satisfaction is greatly influenced by personalization and that "personalization emerges as the most important determinant of perceived service quality (Mittal & Lassar, 1996)." By personalizing a customer's visit, a customer knows that the employees consider them as an individual and that each and every person is highly valued as a customer.

Free smoothie products seem to lead to a customer's positive experience as well. Free smoothie boosts were given to each customer, and it was common to see an employee hand out free samples to their customers. By walking around giving free samples, employees gave customers a chance to try other options on the menu. Customers seemed joyful when they

were able to try a "Granola Topper", a thick yogurt-smoothie with granola on top, without having to purchase it. When handing out the samples, the employee would tell the customer about the organic granola and other fresh ingredients blended into the Granola Topper. Passing out free samples gives the employees a chance to communicate with customers about their products, and it lets the customer know that the company wants them to try more of their products and come back for more.

During observation it was noted that Jamba Juice employees would do small things to support customer satisfaction. Before a smoothie was given to a customer, employees would always put a straw in the drink, with the top part of the paper still on. Customers would not have to bother with putting a straw in but would not be turned off by a stranger touching the top of the straw. When a customer had trouble deciding which smoothie to purchase, the employee working the register would help out and give advice on which choice might be best. When customers received this type of assistance, they would see that employees liked to help customers in choosing which smoothie they wanted. Mancini also explained that Jamba Juice employees "go above and beyond" in order to help out customers in any way, such as opening the door for customers or helping a customer carry a large order to the car. Assistance of any sort adds to the overall positive experience of a customer because the customer sees that the employee cares.

Conclusions

Based upon the research, it is determined that employees express positive attitudes by creating a lively atmosphere, keeping a clean environment, greeting customers, using a customer's name, distributing free products, and assisting the customer whenever possible in order to make customers feel comfortable, welcomed, special, and appreciated.

 Due to the fact that not all companies are the same, the way employees emit positive attitudes may be different and might be carried out for dissimilar reasons. Other companies may also find one of the methods found to express positive attitudes more useful than another, and may therefore apply this preferred method more frequently. However, it is clear than it any business, customer satisfaction is critical to sustaining a company.

Although valid results were found, the limited amount of research and observation may restrict the overall reliability of the conclusions made. Only one store location was observed, so conclusions were drawn from this one example. More interviews with multiple ranks of employees and more time spent observing the actions of employees would provide for more stable findings. In addition, the view of customers was not taken into account.

Researchers interested in this topic are advised to get more interviews and additional views of positive attitudes and customer satisfaction, such as the employee's view and customer's view, as well as observe other store companies and locations.

Appendix
Interview Questions

1. What do you do to make customers feel welcome?
2. Are employees supposed to do anything when a customer walks through the door, orders their smoothie, gets their smoothie, or leaves the store?
3. How do you think you handle your customers differently from other companies?
4. What is the employee uniform (hats?) and do you believe it helps with customer satisfaction?
5. Why do you set up the menu in a certain way?
6. How do you satisfy a dissatisfied customer?
7. Do you believe the all natural ingredients affect customer satisfaction? What you offer? Because it's healthier? Because it tastes better?
8. And finally, is there anything else you think I should know about your employee-customer relations?

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Observation Notes of Jamba Juice

Thursday, April 24, 2:04 – 3:10
"here's your x"

Short black hair girl "sara I have your carribean passion"
        Here ya go. (thank you) "your welcome!" smiles

All hanging out and talking, no customers 2:07

"hi!" leader gets ready at register. Smile.
Tattoo girl orders, leader, would you like anything else?" 73 is your change.

Two guys
Green shirt "Can I have a x …." Don't seem very excited
Blue shirt, "ill have strawberry pb.." leader seems concentrated, hard to hear? Loud music
leader-"thank you!"

michelle! Heres your strawbeery surf rider smiles
leader goes to tables and gives blue his food

lady jean jacket "id like to get a mango, excuse me, a pomegranate paradise, and .."
leader, would like an original, *points to it*" smile"

M preparing free samples.
Short hair and long black pony tail preparing smoothies

M friend would you like to try the mango peach topper?x2 to other people
Goes up to people, to sandals and to jeans

Man orders
lady jean .. leader smiles…..thanks

brown haired sandal girl

short hair your smoothie is ready. here ya go. Sandals is eating sample

phone rings short hair picks up this is x xx smiling on phone how can I help you

pony preparing smoothie
short hair smiles at sandals
both give her smoothie/food

man chillin on couch drinking small smoothie watching employees

emps. Hanging out not doing much, fixing things, cleaning things? Laughing

blond guy emp. Shift at 2

leader cleaned up trash (straw wrapper) on table. Fixing chairs
comes over, "did your computer come like that?! It caught my eye!" yea ☺ its different short laugh "its different"
still fixing chairs.

short hair to guy sunglasses "which free boost would you like with that .."

m cleaning counter. Sunglasses looking outside walking around . looking at book behind.
Man finishes smoothie goes to bathroom
Leader gets more bananas for front of register. Gets more bananas half green bananas….

Shoulder bag guy walks in. no acknik. M goes up and gives him and mom and girl samples"

To Sunglasses "x.. your welcome"

Hi smile points to original again (to shoulder bag)
Laughing to each other behind counter ran into eachother.
Blond comes back out. Singing

Pony tail about to leave

Lady with sash belt
"can I get two x" "ok" "repeats yea" leader explaining something
Pony bye on phone .

Shoulder bag walks up to counter "m here ya go" "thank you"

Leader smiles again when sash done

Mom orders girl reading hand menu
Talking leader smiling and nodding
Leader talking to girl, explaining both laughing smiling "leader- no you're fine!"
Smiling eye contact to girl short laugh

"thank you" taking money from mom "thank you very much" gives money back

Sweatpants "thanks receiving money"

Big guy with earring
Leader "hi"

M gives sash smoothie "laura your x" "thank you" "thank you" "have a good day"

Bald guy and camouflage walk in
 M"heres your strawberry wild smile" 2both thank you!
Sweatpants and earring waiting not smiling
Friends (bald and camo) on couch laughing

"here ya go" sweatpants
M preparing other smoothie
Friends still talking, don't seem inpatient.

Smiling a lot short hair to earring guy waves bye thank you

Tall shoes and rose shirt
Leader cries "y'all set?"
(ready)

Blonde red skirt

M prepares both friends smoothies "Jason" strawverry wild takes it
Here ya go thank you

Hi . how are you.x.
Talk "yea absolutely"

Hat and glasses walks in goes up to counter "m hello!" short "we are" hat and glasses takes application

Yoga girl

3 preparing smoothies m, short hair, and always here guy.
M preparing more samples?

Hi hi keys "how are ya" good how are you today?" leader.

"Amy!" short hair to ?
Guy still filling out application

Christine goes to get smoothie

Blond comes back out laughing with leader
Ble

(amy) Blonde red skirt comes back in "short hair youre all set!"

Leader leaving always here guy takes over register
Thank you when taking money

Always here waits at register when polka dots comes in

Short hair talking to application guy
Always here guy smiling

Glasses red shirt walking up "enjoy it" "have a good day" "you too!" m

5 people walk in
Always here guy walks to register short hair giving directions to blond

Interview with hairpony? Short hair will brb

"Julie pomegranate paradies" "here ya go enjoy thanks"

Orange hats: always here, blond, and m
Green hats/visor: short hair and leader

Blond making smoothie "nick here ya go have a good one" smile
(boardshorts)

Original strawberry whirl x?

Short hair talks to hairpony and walks in back again. Something about a picture? Girl applying for job?

"Alex mega mango" puts straw on takes off half "here ya go enjoy"

Short hair and m talking short hair smiling

Music sounds fun upbeat beats.

"hello" "someone else hey" "hows it goin? M... (walk up to them) (backwards sunglasses and e shoes) would you like to try the x?"

(230 leader leaves?)

"can I get your first name. did you want your receipt?" there ya go

Hey hows it going

High pony walks in "hi!"

Hi (red glasses asks question) what *leans forward* ? Oh don't worry about it
Red glasses with open polo guy

M offering samples again

Annie? –annie!- anniiee (annie finnaly goes up) high pony
Blond and always here guy talking and laughing by register

Leader comes back 305

Interview and her friend still here waiting at benches
E shoes and backwards sunglasses on couches

M in front, only one not doing anything walking around, lookin at stuff
Shrot hair (visor) and leader (hat) by register looking and discussing about something

M seems bored rubs face

2 minutes later can I take this for you? Walks up to table how was it *talks*

Short hair takes hairpony for interview outside and leader takes friend for interview inside

END

Saturday, April 26, 11:41 – 1:12

Visor employee dude, halls girl, long pony tail girl
All wearing yellow visors

When we walked in visor dude said hi really loud
He is now making a smoothie. Looks relaxed, not bored to be here.
"Dan" mouthing words to song a little bit.

Vest guy walks in. halls girl takes order. "would you like a free boost in that?"
Repeats order, doesn't smile, seems to explain things to him a little bit (probably never been here?) long ponytail making smoothie. And halls girl mixing it. Vest guy went somewhere, not in store. Comes back from bathroom. Takes food and two smoothies.

3 girls walk in. hello (long ponytail). Halls girl takes order, just going through the motions, not being rude or anything. Not smiling, just normal.
(leader comes back into area)

"I have an original caribbean passion" "there ya go"

Interesting music playing. Fun upbeat music, a little loud but not too much.

Girl and guy with sock hats walk in. halls girl talking to them, laughing a little. They go over to counter. Halls girl takes order. X "do you want a sixteen or a twelve".."do you want a free boost with that as well?"

Later, other girl in 3-girl groups gets smoothie. "sarah" (long ponytail)

Sock hats still ordering. When guy gives card to halls girl, makes a funny face- can I get your card.

All black blonde with halls girl "your total today is 4.70" seems nice but not really smiling. Then goes to make smoothie.

9 customers total in store, all around. 11:58.
2 guys walk in. blond and brown with jackets and sweatpants. "can I get something for you guys today?" "free boost in any of those?" your name? your total is 9.82. x thank you. To brown guy, explaining the difference between two smoothies, says difference is lime sherbert, doesn't look at list or anything to know whats in it.

Red glasses is here again.
Xx" your total Rachel is 470 today."

11 people in store, on couches, chairs with tables and back bar. One table is open. Leader is smiling.
Guy with red eyes walks up to counter looking for something to get. Halls girl walks up to register, smiles and says hi.
Two girls from gym. Halls girl smiles when walks up to coutner, right after red eye guy. 12:04.
Two guys with jackets and sweatpants go up to get their smoothies. Its very busy in here, especially when its SNOWINNGGG.
"kids in America" song is playing again.

Leader is wearing green hat. Another worker is here short piecy hair. She is making smoothies and such. A lot of people have just left. There are now 5 people total. Red glasses on couch and sock hats at back bar. Piecy is wiping off smoothie giving station. 12:10. Red glasses left (1212).

Weird song "the devils haircut in my mind"

Animal coat lady walks in, looking at smoothies. Guy? Says hi. Halls girl walks to counter and takes order. Explaining boosts to her. 12:15. Sock hats left.

Purple sweater guy. Buzz cut girl walks in. halls girl "how are you today?" smiles. buzz "good"
Halls girl is sweeping the door rug. Purple sweater walks out, halls girl pushes door open for him. (doesn't say anything?) visor dude finished order of buzz by the way.
Customers leave.
12:21
White hat walks in. orders. White puffy vest girl walks in. black trench and glasses guy walks in. visor dude comes out to put more waters in case. All the water labels are facing out. Special jamba juice water.

"I think im cool" guys walk in. josh and chris.

Halls girl is sweeping the rug again and opens door for customers from the inside. (door opens out. It is snowing.) halls girl is talking to cool guys. Hat one smiles, kinda laughs, she is casually talking (short conversation) with him/them. Leader is not in view, hasn't been for awhile. Piecy and long pony are cleaning up/ making smoothies.

halls girl goes to register with broom to take order, since visor dude went in back. "did you need a copy of your receipt?" goes back to sweeping.

Piecy "josh?" long pony "chris! here is your original berry fulfilling." 12:31
Guys are still here,
"laurie, here is your original orange dream machine" places it on table with half open straw for her to get. Long pony.
"Josh? Your original pomegranate." Guys leave.

Piecy had made smoothie for "john" john left. Piecy took leftovers into a mini sample cup and ate it with a spoon.

Spiky hair lady walks in, looking at smoothie choices. Halls girl goes over to see if she needs any help. She explains what the things are, what a lot of people like, etc. the smoothie I think is for someone else. Then she goes to order, they walk back to register.
Halls girl is sweeping again after finished sale.
Puts a glove on to pick up trash off the floor. Fixes positions of chairs. Guys with hoods on walk in. halls girl goes to register. Guys talking to piecy girl.
Halls girl gets cleaner to wipe off tables, cleans table next to us. "how are you guys doing?" both good. I said how are you, but didn't say anything back. Didn't hear? Wasn't listening?
Hoodie guys still talking to piecy.

12:46
Guy with two bags is waiting for smoothie (40s?). Hoodie guys are still here. I don't think they ordered anything. Apparently they did because piecy girl just made them smoothies.
Visor guy is talking to two bags guy about something, asked him a question. "so did xxx?" doesn't seem to know him but seemed to ask about some place. Hoodie guys are talking to piecy in area by smoothie counter.

The music playing here is either upbeat music or chill "tropical" music.

Hoodie guys finish talking to piecy and leave. Red hat and sunglasses walks in. looking at smoothies. Leader says "hi how are you today?" "good" "good"

Guy with green jacket walks in. says hey to piecy. She says "lovverrr!" he walks into back, must work here. Goes to register really quick. Goes in back. Gets a badge of some sort and walks out.
Big coat guy has walked in and orders, visor guy takes order. Leader is at the other register, she is smiling but not talking to customer. Visor guy smiles to big coat guy. Big coat goes to sit relaxingly on comfy chair couch.

Guy with green jacket comes back in, goes behind counter says something to leader both smile he goes in back. Long pony says name and order and big coat guy comes to get his smoothie. Leaves.

1:00. No customers besides us. Employees are all in back somewhere. Visor dude and halls girls comes out. And leader. Do something with register. Register opens, probably doing some money counting or paper work on register. Leader walks outside for 2 seconds but comes back in right away. Long pony tail not doing anything at smoothie station. Others not doing anything. Green sweater guy has changed into uniform (jeans and white collared shirt) with green hat. Goes in back.

Halls girl seems to be done with shift, she goes into bathroom, has her hat in her hand. 1:04. The employees are finding something to do whether its cleaning up or looking at the nutrition book or refilling the frozen food (?). halls girl has come out of bathroom and has changed from uniform. 1:08. Green sweater guy by register. Checkered vans girl walks in and orders. Piecy takes order. Green sweater had said hi.

"ryan" customer walks in and orders, piecy takes order. Really long hair dude walks in. piecy asks how he is, hes good. Green sweater employee and visor dude are talking while making smoothies.
1:12
END

Sunday, April 27, 12:40 – 2:12

Employees today: Lizzy, blue ribbon, long ponytail, and newgirl. Lizzy has her visor backwards. All four girls have yellow visors.

Newgirl is putting out the smoothies, but doesn't speak very loud and doesn't seem to be familiar with all the names of the smoothies. Lizzy just put her visor the right way. She is working the register right now. Blue ribbon and newgirl are making the smoothies, I don't know where longpony is. There are a lot of people in here, 17 customers. Some are ordering some are waiting for smoothies or just sitting around.

Today, they offered if we would like a baked good with our smoothie for an extra dollar.

"I can help the next group" says lizzy when she is done with the customer ordering. They are two customers. There are 4 groups in line now, 6 people. group 4 is a mom and a young girl. Group 1 is a guy and a girl, probably college students.

Lizzy says some kind of hello for the next customer in line. Hello! I can help the next group. Are you ready?

The employees look very busy, things are now starting to die down though. They are not being overly nice, but not rude, just appropriate towards the customers.

1:00 a new employee, who hung out here a few minutes ago just changed into his uniform and clocked in. chris has a green hat. Also I think there is another employee in the back. Blonde ponytail, shorts. I think she cleans up all the stuff, etc. New girl is putting on gloves, chris is making smoothies, lizzy is taking orders. The only customers in here are us, two people ordering, a woman waiting for a smoothie, and a woman with two girls (on the couch).

No one is really saying hi all that much today. A girl was waiting in line. She walks forward when the previous customer is done, and chris (who is working the register) says heyy. He said it again to the next customer (guy). The customer said how are you and chris replied, "good how are you?"

Woman and girl: "heyy" (replied) "how are you doing today?" chris.
Chris says heyy to the customers when they arrive at the register.

They did not give Lindsay her snack right away. I think they cooked it? Its been about 5 minutes since she ordered, she went up while chris was dealing with a customer, he saw her and gave a motion that said it was coming. Its been about two more minutes and he hasn't gotten it for her.

1:32 there is only one other customer in here, the employees have gone in the back.
Woman walks in, chris takes order, asks heyy how are you. Makes small talk with her (im not sure if he knows her).

All the employees (except for longpony, I don't know where she is) are filling out sheets, I think that say what goes in which smoothie. More customers walk in, three guys. Chris puts his paper away and the employees move away from the register. Chris goes to take their order. Another guy has walked in.
Shorts is making smoothies now, and so is longpony and newgirl. Lizzy is done with her shift? and has left, with a smoothie snack. 1:42

Chris yawned and is waiting at the register. Two people are looking at the menu to see what they want, they are waiting by the door. Then chris went in the back. Three more customers came in and he walked to the register again. He is looking at them. Lizzy is back, she finished her smoothie and doesn't have her bag with her. She gave herr badge to chris when she passed him to walk in the back. 1:46

Now there is a line of customers, 7-8. Blue ribbon comes to the other register and says "I can help whoever is next."

Once blue ribbon helps the group of 3, she moves away from the register and eriv finishes with the line, theres only two people to help.

Chris is waiting at the register for the people to order. He smiles when a customer walks up, girl about 20.

New girl sees someone she knew, waves and says hi! They say hi and how are yous. Seems pleasant. Customer friend girl then orders and newgirl finishes making her smoothies.

All the customers are sitting somewhere, either just waiting for a smoothie or relaxing. Long pony calls "bart?!" and bart gets up to get his smoothie. Then leaves. Someone, I think an employee, just walked in and went straight through to the back. She looked around and smiled while she walked quickly. She didn't say anything to anyone. Blue ribbon is working the register for a customer at this moment. 1:58.

Some of the employees are filling out the paper again. The girl who walked in now has her uniform on, green visor, clocks in, and makes some smoothies. Shorts is doing something with the other register.
Blue eyes = employee who walked in
Blue is smiling slightly but not towards anyone. 2:07. Eric is smiling too, looking out window? Then takes customers order when he, customer, is ready

Working now: chris, newgirl, longpony, blue ribbon, and blue. And shorts in the back.

"peach perfection no boost and pomegranate paradise no boost" blue ribbon. Places it on counter as customers walk over to pick it up. Blue is cleaning up the counter. 2:11. Eric is talking to blue about something. She is talking laughs, smiles. Answers. Something about a test tomorrow. 2:12.

Tuesday, April 29, 3:35 – 4:48

(free cone day at Ben and Jerry's, not that busy)

Blue is taking orders and making smoothies today, blond and leader are here too. Smiling a lot, seems cheerful.
Leader is putting out straws, blue is taking orders since customers walked in, and blond is making some smoothies.
Blue's friend came in and is talking to her at the counter, leaves her alone when she is dealing with customers.
Blond made a smoothie for someone. When he took it, he muttered "thanks have a good one."
Leader is putting out new grass for the front of the smoothie station.

5 customers walked in, gets kinda busy. To 3rd customer said hi. 4th "whats your name?" (for order)
"what size do you want"
X is your total, x is your change … reaches over register to give change to customer.

Leader green hat, blue green visor, blond yellow hat.

Customer walks in, leader projects "hi how are you today?!"
I think the customers at the register asked which smoothie was better, etc. she said I prefer such and such. Smiling.

Blond "Margaret"   "Jordan"

"did you want a boost in there at all" "it's a powder, it doesn't taste like anything".. "and what's your name!?" sounds cheerful.

And are you guys sharing that? Do you want it in two cups? N whats your name?
Two more customers walked in, "hi guys" blue
A customer is dancing a little while waiting in line (to the music).

To them: "and would you like a boost in there? "umm".. girl looks up (for boost options?) "theyre right there" blue points to them.

Other customers are kinda dancing too….
Blond is making someones smoothie "chris" smiles when chris comes up then says "alright have a good one"

Dirty blenders are stacked (8) by counter. They are busy making smoothies.
Three customers walk in, one employee says "hi!" blue says "hey how are you guys?"

Blue "its really good..x…" smiles

3:57 short hair came back from break. Walked out at 3:30. short hair is now taking orders and blue is making smoothies. Short hair is wearing a green visor.

Blue says name, they walk up, says your peanut butter moo'd, etc. (smoothie).
Short hairs smiling, while customer is getting money, smiles to her as she takes it.
Something about a receipt, and shows it to him. X. "okay youre good" smiling.

And yet another customer is dancing…. .

Blue smiled when she gave a smoothie to a customer. Short hair just brought a tray with sample cups on it to the front in the smoothie making station.

Blue. "jenna!? Have a wonderful day." Blue just went on a break. 4:14 she was talking on the phone, said ill be right there with a smile (calm not urgent). Got bag and a smoothie and left. Told short hair she would be right back.
Short hair passes out some mango peach topper samples.

Customer is trying to figure out what she wants, standing away from register. Short hair makes eye contact, says hi, customer smiles, walks a little closer but is still deciding. Walked away and sat down, short hair comes over to her and says we're making a mango peach topper sample, so you can see if you like it. Girl says okay and smiles.

Blond is dancing behind counter.

Leader is wiping down the counter and everything else in the front. I sneezed, she said bless you quietly.

Two customers walked in. short hair said "hello!" and the customers said hi
Leader is offering samples to the customers of the mango peach topper and is explain it and some other things on the menu.
The customers are trying to figure out what they want, short hair is smiling. 4:26.

A customer walks in, leader says "hi how are you today?"
Another guy comes in, short hair says hello. People are sitting on the couch and one group is at a table. The two customers have ordered or are waiting for something.

Leader gives sample to these two. The lady customer was wondering what it was and the leader smiles and explained it and noted that there was another flavor as well. The customer laughed a little and smiled.

On the sample tray is a picture of the mango peach topper.

4:43 blue is back from her break. Walking briskly to the bathroom.

Discussion and Practice

1) In groups of three, annotate Ziffer's article just as Besen's article is annotated. To help you do this, try answering these questions: What are the genre features or organization of Sara's research article? What does she include in each subsection of her paper?

2) Discuss your annotations with the rest of the class and compare notes.

3) Freewrite on your own for a moment and answer the following questions: 1) What writing strategies from Sara's paper would you utilize in your own paper? 2) What would you do differently than Sara in your own paper? 3) How would you improve upon Sara's paper?

4) Discuss your freewrite responses with the rest of the class.

Students as Scholars Reading Questions

1) Audience: Who is the primary audience for this paper? Who is a secondary audience for this paper?
2) Purpose: What do you think is Sara's purpose in writing this qualitative study on Jamba Juice?
3) Write a brief abstract for Sara's study.
4) Although Sara includes a brief literature review, she does not clearly state her research gap. What is a potential research gap you could include in her study?
5) Did Sara do an adequate job of detailing her research methods for her audience? Why or why not? What else would you have added?
6) In her Study section, Sara includes a fairly detailed historical background of Jamba Juice as a company. Why do you think she does this? Does including this historical background make her study more credible and effective to her audience? Why or why not?
7) How is the research data in Sara's study organized? Why do you think it is organized in this way?
8) Is the structure Sara used to organize her data effective to read? Why or why not? In what other ways could you have organized this data?
9) How were sources used in Sara's study to interpret the data? Was the data interpreted effectively for her audience? Why or why not?
10) What was the significance of Sara's findings? Did she do an effective job of stating the significance of her study for her audience? Why or why not?

11) Read through Sara's observational notes. Do her findings follow from what she observed in her notes? Why or why not? What other findings could you draw from her notes?
12) What were the limitations for Sara's study?
13) What were some other potential limitations for Sara's study that were not mentioned?
14) Sara includes two appendices at the end of her study. How does including more data in the appendices help strengthen her credibility as a researcher?
15) Working in groups of two, include headings for her data analysis in the Study section.

Popular/Public Example

The next example of qualitative writing, "Serving in Florida," is written for a popular audience and not an academic one. Specifically, this next example, written by journalist Barbara Ehrenreich, appeared in the *New York Times*. However, although this piece was written for a popular audience, Ehrenreich still used qualitative research and writing techniques. As you read the next selection, compare it to the academic examples of qualitative research and writing you have just read, noting and similarities and differences. In particular, notice what writing strategies Ehrenreich uses to appeal specifically to her popular audience of *New York Times* readers.

"Serving in Florida" originally appeared in *The New York Times* but is an excerpt of the non-fiction book, *Nickel and Dimed: on (Not) Getting By in America*, published by Ehrenreich in 2001. Troubled by the difficulty many women faced making a living after the welfare reform of the 1990's, Ehrenreich was dared by an editor of *Harper's* magazine to actually try to live and work as these women—and do some in-depth, investigative reporting along the way.

Nickel and Dimed: On (Not) Getting By in America

Barbara Ehrenreich
The New York Times

Serving in Florida (excerpt)

Mostly out of laziness, I decide to start my low-wage life in the town nearest to where I actually live, Key West, Florida, which with a population of about 25,000 is elbowing its way up to the status of a genuine city. The downside of familiarity, I soon realize, is that it's not easy to go from being a consumer, thoughtlessly throwing money around in exchange for groceries and movies and gas, to being a worker in the very same place. I am terrified, especially at the beginning, of being recognized by some friendly business owner or erstwhile neighbor and having to stammer out some explanation of my project. Happily, though, my fears turn out to be entirely unwarranted: during a month of poverty and toil, no one recognizes my face or my name, which goes unnoticed and for the most part unuttered. In this parallel universe where

> **Comment [RC59]:** Even though she is not writing for an academic audience, the nature of qualitative research still requires context. She begins with her setting and leads to her expectations and concerns about this setting.

my father never got out of the mines and I never got through college, I am "baby," "honey," "blondie," and, most commonly, "girl."

My first task is to find a place to live. I figure that if I can earn $7 an hour—which, from the want ads, seems doable—I can afford to spend $500 on rent or maybe, with severe economies, $600 and still have $400 or $500 left over for food and gas. In the Key West area, this pretty much confines me to flophouses and trailer homes—like the one, a pleasing fifteen-minute drive from town, that has no air-conditioning, no screens, no fans, no television, and, by way of diversion, only the challenge of evading the landlord's Doberman pinscher. The big problem with this place, though, is the rent, which at $675 a month is well beyond my reach. All right, Key West is expensive. But so is New York City, or the Bay Area, or Jackson, Wyoming, or Telluride, or Boston, or any other place where tourists and the wealthy compete for living space with the people who clean their toilets and fry their hash browns. Still, it is a shock to realize that "trailer trash" has become, for me, a demographic category to aspire to.
So I decide to make the common trade-off between affordability and convenience and go for a $500-a-month "efficiency" thirty miles up a two-lane highway from the employment opportunities of Key West, meaning forty-five minutes if there's no road construction and I don't get caught behind some sundazed Canadian tourists. I hate the drive, along a roadside studded with white crosses commemorating the more effective head-on collisions, but it's a sweet little place—a cabin, more or less, set in the swampy backyard of the converted mobile home where my landlord, an affable TV repairman, lives with his bartender girlfriend. Anthropologically speaking, the trailer park would be preferable, but here I have a gleaming white floor and a firm mattress, and the few resident bugs are easily vanquished.

The next piece of business is to comb through the want ads and find a job. I rule out various occupations for one reason or another: hotel front-desk clerk, for example, which to my surprise is regarded as unskilled and pays only $6 or $7 an hour, gets eliminated because it involves standing in one spot for eight hours a day. Waitressing is also something I'd like to avoid, because I remember it leaving me bone-tired when I was eighteen, and I'm decades of varicosities and back pain beyond that now. Telemarketing, one of the first refuges of the suddenly indigent, can be dismissed on grounds of personality. This leaves certain supermarket jobs, such as deli clerk, or housekeeping in the hotels and guest houses, which pays about $7 and, I imagine, is not too different from what I've been doing part-time, in my own home, all my life.

So I put on what I take to be a respectable-looking outfit of ironed Bermuda shorts and scooped-neck T-shirt and set out for a tour of the local hotels and supermarkets. Best Western, Econo Lodge, and HoJo's all let me fill out application forms, and these are, to my relief, mostly interested in whether I am a legal resident of the United States and have committed any felonies. My next stop is Winn-Dixie, the supermarket, which turns out to have a particularly onerous application process, featuring a twenty-minute "interview" by computer since, apparently, no human on the premises is deemed capable of representing the corporate point of view. I am conducted to a large room decorated with posters illustrating how to look

Comment [RC60]: Rather than use headings, she relies on specific transitions or metadiscourse to lead the reader through the text. Here, she is beginning her method and study section.

Comment [RC61]: In writing for popular audiences, research is referred to differently. She has done preliminary research to help her in her method of finding a place to live. This may seem informal to you, but in practice, she probably spent a good deal of time researching a number of different jobs that women have in the area she has chosen to study.

Comment [RC62]: In popular writing, analysis and interpretation often isn't relegated to one section. After all, you are trying to keep your reader engaged with the piece. She is comparing her situation or context with other contexts so the reader has some perspective.
Note that most popular writing also shows more biases; here, Ehrenreich reveals she may have to aspire to "trailer trash" status.

Comment [RC63]: Ehrenreich makes a connection between her work here and other anthropologists, and she describes a limitation to her study—that she, in fact, is living in a cabin and not the actual trailer park that she believes so many waitresses live in.

Comment [RC64]: Once again, notice that she is using transitions to lead the reader through her piece rather than a section heading.

Comment [RC65]: She has a clear preference for what she wants to do in her study, but she seems to ignore particular settings for her study. This can sometimes be accomplished in particular types of qualitative research because of resources or time constraints, but in Ehrenreich's case, it is more personal. However, because of this personal statement, it makes a greater appeal to pathos when she, in fact, interviews at hotels and ends up with a job as a waitress.

"professional" (it helps to be white and, if female, permed) and warning of the slick promises that union organizers might try to tempt me with. The interview is multiple-choice: Do I have anything, such as child care problems, that might make it hard for me to get to work on time? Do I think safety on the job is the responsibility of management? Then, popping up cunningly out of the blue: How many dollars' worth of stolen goods have I purchased in the last year? Would I turn in a fellow employee if I caught him stealing? Finally, "Are you an honest person?"

Comment [RC66]: There is a great deal of description for the application processes including specific questions. Although clearly interspersed with her own commentary and analysis, she is providing many useful descriptive details as any qualitative researcher would.

Apparently I ace the interview, because I am told that all I have to do is show up in some doctor's office tomorrow for a urine test. This seems to be a fairly general rule: if you want to stack Cheerios boxes or vacuum hotel rooms in chemically fascist America, you have to be willing to squat down and pee in front of a health worker (who has no doubt had to do the same thing herself.) The wages Winn-Dixie is offering—$6 and a couple of dimes to start with—are not enough, I decide, to compensate for this indignity.

I lunch at Wendy's, where $4.99 gets you unlimited refills at the Mexican part of the Super-bar, a comforting surfeit of refried beans and cheese sauce. A teenage employee, seeing me studying the want ads, kindly offers me an application form, which I fill out, though here, too, the pay is just $6 and change an hour. Then it's off for a round of the locally owned inns and guest houses in Key West's Old Town, which is where all the serious sightseeing and guzzling goes on, a couple of miles removed from the functional end of the island, where the discount hotels make their homes. At The Palms, let's call it, a bouncy manager actually takes me around to see the rooms and meet the current housekeepers, who, I note with satisfaction, look pretty much like me—faded ex-hippie types in shorts with long hair pulled back in braids. Mostly, though, no one speaks to me or even looks at me except to proffer an application form. At my last stop, a palatial B & B, I wait twenty minutes to meet "Max," only to be told that there are no jobs now but there should be one soon, since "nobody lasts more than a couple weeks." Three days go by like this and, to my chagrin, no one from the approximately twenty places at which I've applied calls me for an interview. I had been vain enough to worry about coming across as too educated for the jobs I sought, but no one even seems interested in finding out how overqualified I am. Only later will I realize that the want ads are not a reliable measure of the actual jobs available at any particular time. They are, as I should have guessed from Max's comment, the employers' insurance policy against the relentless turnover of the low-wage workforce. Most of the big hotels run ads almost continually, if only to build a supply of applicants to replace the current workers as they drift away or are fired, so finding a job is just a matter of being in the right place at the right time and flexible enough to take whatever is being offered that day. This finally happens to me at one of the big discount chain hotels where I go, as usual, for housekeeping and am sent instead to try out as a waitress at the attached "family restaurant," a dismal spot looking out on a parking garage, which is featuring "Pollish sausage and BBQ sauce" on this 95-degree day. Phillip, the dapper young West Indian who introduces himself as the manager, interviews me with about as much enthusiasm as if he were a clerk processing me for Medicare, the principal questions being what shifts I can work and when I can start. I mutter about being woefully out of practice as a waitress, but he's already on to the uniform: I'm to show up tomorrow wearing black slacks and black shoes; he'll provide the rust-

Comment [RC67]: She returns to her full research question briefly. Remember, she is looking generally at how women at menial labor jobs might survive, so this addition is helpful to her argument even if it doesn't seem like an important detail.

Comment [RC68]: She mentions Wendy's and Winn-Dixie by name because there are so many, and her details are sparse enough about the people involved that she has kept their identities confidential. Here and in the following example, she is looking at specific hotels with only one location so she makes up a pseudonym in one case and refers to the next by category only (i.e. a B&B) and puts the name of a manager in quotes. This protects the confidentiality of those in her study.

Comment [RC69]: Her analysis here reveals a larger significance of her study, not just about the state of living on a low wage job, but on jobs in general. Once again, although the significance of the study would be discussed at the end of the Results/Discussion section of an academic piece, she reveals it here now because it is relevant to her story at this point.

Comment [RC70]: In her study, when she is finally interviewed, notice that she uses a metaphor for the method in which she was interviewed. While more interesting to a popular audience, in qualitative research for an academic audience, metaphor is not as descriptive because it relies on the reader knowing what the reference means. In this case, if you've never had experience going to a Medicare office, then you won't know what this means.

colored polo shirt with "Hearthside," as we'll call the place, embroidered on it, though I might want to wear my own shirt to get to work, ha ha. At the word tomorrow, something between fear and indignation rises in my chest. I want to say, "Thank you for your time, sir, but this is just an experiment, you know, not my actual life."

SO BEGINS MY CAREER AT THE HEARTHSIDE, WHERE FOR TWO WEEKS I work from 2:00 till 10:00 P.M. for $2.43 an hour plus tips. Employees are barred from using the front door, so I enter the first day through the kitchen, where a red-faced man with shoulder-length blond hair is throwing frozen steaks against the wall and yelling, "Fuck this shit!" "That's just Billy," explains Gail, the wiry middle-aged waitress who is assigned to train me. "He's on the rag again"—a condition occasioned, in this instance, by the fact that the cook on the morning shift had forgotten to thaw out the steaks. For the next eight hours, I run after the agile Gail, absorbing bits of instruction along with fragments of personal tragedy. All food must be trayed, and the reason she's so tired today is that she woke up in a cold sweat thinking of her boyfriend, who was killed a few months ago in a scuffle in an upstate prison. No refills on lemonade. And the reason he was in prison is that a few DUIs caught up with him, that's all, could have happened to anyone. Carry the creamers to the table in a "monkey bowl," never in your hand. And after he was gone she spent several months living in her truck, peeing in a plastic pee bottle and reading by candlelight at night, but you can't live in a truck in the summer, since you need to have the windows down, which means anything can get in, from mosquitoes on up.

At least Gail puts to rest any fears I had of appearing overqualified. From the first day on, I find that of all the things that I have left behind, such as home and identity, what I miss the most is competence. Not that I have ever felt 100 percent competent in the writing business, where one day's success augurs nothing at all for the next. But in my writing life, I at least have some notion of procedure: do the research, make the outline, rough out a draft, etc. As a server, though, I am beset by requests as if by bees: more iced tea here, catsup over there, a to-go box for table 14, and where are the high chairs, anyway? Of the twenty-seven tables, up to six are usually mine at any time, though on slow afternoons or if Gail is off, I sometimes have the whole place to myself. There is the touch-screen computer-ordering system to master, which I suppose is meant to minimize server-cook contacts but in practice requires constant verbal fine-tuning: "That's gravy on the mashed, OK? None on the meatloaf," and so forth. Plus, something I had forgotten in the years since I was eighteen: about a third of a server's job is "side work" invisible to customers—sweeping, scrubbing, slicing, refilling, and restocking. If it isn't all done, every little bit of it, you're going to face the 6:00 P.M. dinner rush defenseless and probably go down in flames. I screw up dozens of times at the beginning, sustained in my shame entirely by Gail's support—"It's OK, baby, everyone does that sometime"—because, to my total surprise and despite the scientific detachment I am doing my best to maintain, I care.

The whole thing would be a lot easier if I could just skate through it like Lily Tomlin in one of her waitress skits, but I was raised by the absurd Booker T. Washingtonian precept that says: If you're going to do something, do it well. In fact, "well" isn't good enough by half. Do it better

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Comment [RC71]: Once again, she is using a pseudonym.

Comment [RC72]: Although not as clearly descriptive as headings in an academic article, the use of all capital letters here sets her specific study of a setting apart from the rest. Regardless, she is still using transitions to propel the reader through the study.

Comment [RC73]: Ehrenreich is doing a few things with this description. On one hand, she is describing in detail a co-worker, but she does so by humanizing Gail with the details that Gail shared about her life. Remember, her study is about making a living as a low wage worker, so she is revealing details both about her setting and another low-wage worker at the same time.

Comment [RC74]: Ehrenreich begins her descriptive analysis by following almost a formula. She will begin each paragraph with a topic sentence that sets up what the paragraph will be about followed by details from her day-to-day experiences to support that topic sentence followed by a final analysis. This analysis pattern is similar to how you may analyze your data in the discussion section of an academic paper. In this case, she is discussing her belief in being better than this job followed by examples of how she was not as good at her job as she had assumed, ending with a conclusion that, like most jobs, people make mistakes no matter how hard they try.

Comment [RC75]: She draws a parallel between her "old" job and her new one by showing contrast, even as she admits that writing is difficult in that one day's success doesn't equal the same success the next. As with metaphors, comparisons work better for popular audiences because they are more interesting to read and connect reader and writer experiences. However, in qualitative research for an academic audience, description of what was seen or heard is better than metaphors of parallels because it removes the potential disadvantage of relying on your audience's understanding of the frame of reference in the comparison.

Comment [RC76]: Although she uses a comparison that is interesting for her audience, she also provides greater qualitative detail for her audience, who has probably eaten in a number of restaurants. This takes her qualitative analysis beyond simple observation or common assumptions about a topic. In other words, she is revealing more of this culture than just casual observation will reveal.

Comment [RC77]: She claims here to have a scientific detachment. However, based on what you know of qualitative research, is that possible? To what degree is she detached in this instance?

than anyone has ever done it before. Or so said my father, who must have known what he was talking about because he managed to pull himself, and us with him, up from the mile-deep copper mines of Butte to the leafy suburbs of the Northeast, ascending from boilermakers to martinis before booze beat out ambition. As in most endeavors I have encountered in my life, "doing it better than anyone" is not a reasonable goal. Still, when I wake up at 4 A.M. in my own cold sweat, I am not thinking about the writing deadlines I'm neglecting; I'm thinking of the table where I screwed up the order and one of the kids didn't get his kiddie meal until the rest of the family had moved on to their Key lime pies. That's the other powerful motivation—the customers, or "patients," as I can't help thinking of them on account of the mysterious vulnerability that seems to have left them temporarily unable to feed themselves. After a few days at Hearthside, I feel the service ethic kick in like a shot of oxytocin, the nurturance hormone. The plurality of my customers are hardworking locals—truck drivers, construction workers, even housekeepers from the attached hotel—and I want them to have the closest to a "fine dining" experience that the grubby circumstances will allow. No "you guys" for me; everyone over twelve is "sir" or "ma'am." I ply them with iced tea and coffee refills; I return, midmeal, to inquire how everything is; I doll up their salads with chopped raw mushrooms, summer squash slices, or whatever bits of produce I can find that have survived their sojourn in the cold storage room mold-free.

There is Benny, for example, a short, tight-muscled sewer repairman who cannot even think of eating until he has absorbed a half hour of air-conditioning and ice water. We chat about hyperthermia and electrolytes until he is ready to order some finicky combination like soup of the day, garden salad, and a side of grits. There are the German tourists who are so touched by my pidgin "Wilkommen" and "Ist alles gut?" that they actually tip. (Europeans, no doubt spoiled by their trade union-ridden, high-wage welfare states, generally do not know that they are supposed to tip. Some restaurants, the Hearthside included, allow servers to "grat" their foreign customers, or add a tip to the bill. Since this amount is added before the customers have a chance to tip or not tip, the practice amounts to an automatic penalty for imperfect English.) There are the two dirt-smudged lesbians, just off from their shift, who are impressed enough by my suave handling of the fly in the piña colada that they take the time to praise me to Stu, the assistant manager. There's Sam, the kindly retired cop who has to plug up his tracheotomy hole with one finger in order to force the cigarette smoke into his lungs.

Sometimes I play with the fantasy that I am a princess who, in penance for some tiny transgression, has undertaken to feed each of her subjects by hand. But the nonprincesses working with me are just as indulgent, even when this means flouting management rules—as to, for example, the number of croutons that can go on a salad (six). "Put on all you want," Gail whispers, "as long as Stu isn't looking." She dips into her own tip money to buy biscuits and gravy for an out-of-work mechanic who's used up all his money on dental surgery, inspiring me to pick up the tab for his pie and milk. Maybe the same high levels of agape can be found throughout the "hospitality industry." I remember the poster decorating one of the apartments I looked at, which said, "If you seek happiness for yourself you will never find it. Only when you seek happiness for others will it come to you," or words to that effect—an odd sentiment, it

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Comment [RC78]: By sharing her own experiences here, she is revealing her own perspective about this job. Despite the detachment that qualitative researchers try to maintain, some of ourselves will always be revealed in what we choose to see and report on. In this particular case, does this help or hurt her case for her study? Is she suggesting that Gail, Philip, or Billy, in fact, aren't working hard enough to pull themselves out of their situation?

Comment [RC79]: This generalization would be based on more sources in an academic-focused study, but in this case, and with her added commentary, Ehrenreich is once again adding a particular analysis that reveals a great deal about her own position as researcher in this study.

seemed to me at the time, to find in the dank one-room basement apartment of a bellhop at the Best Western. At Hearthside, we utilize whatever bits of autonomy we have to ply our customers with the illicit calories that signal our love. It is our job as servers to assemble the salads and desserts, pour the dressings, and squirt the whipped cream. We also control the number of butter pats our customers get and the amount of sour cream on their baked potatoes. So if you wonder why Americans are so obese, consider the fact that waitresses both express their humanity and earn their tips through the covert distribution of fats.

Ten days into it, this is beginning to look like a livable lifestyle. I like Gail, who is "looking at fifty," agewise, but moves so fast she can alight in one place and then another without apparently being anywhere between. I clown around with Lionel, the teenage Haitian busboy, though we don't have much vocabulary in common, and loiter near the main sink to listen to the older Haitian dishwashers' musical Creole, which sounds, in their rich bass voices, like French on testosterone. I bond with Timmy, the fourteen-year-old white kid who buses at night, by telling him I don't like people putting their baby seats right on the tables: it makes the baby look too much like a side dish. He snickers delightedly and in return, on a slow night, starts telling me the plots of all the Jaws movies (which are perennial favorites in the shark-ridden Keys): "She looks around, and the water-skier isn't there anymore, then SNAP! The whole boat goes ..."

I especially like Joan, the svelte fortyish hostess, who turns out to be a militant feminist, pulling me aside one day to explain that "men run everything—we don't have a chance unless we stick together." Accordingly, she backs me up when I get overpowered on the floor, and in return I give her a chunk of my tips or stand guard while she sneaks off for an unauthorized cigarette break. We all admire her for standing up to Billy and telling him, after some of his usual nastiness about the female server class, to "shut the fuck up." I even warm up to Billy when, on a slow night and to make up for a particularly unwarranted attack on my abilities, or so I imagine, he tells me about his glory days as a young man at "coronary school" in Brooklyn, where he dated a knockout Puerto Rican chick—or do you say "culinary"?

I finish up every night at 10:00 or 10:30, depending on how much side work I've been able to get done during the shift, and cruise home to the tapes I snatched at random when I left my real home—Marianne Faithfull, Tracy Chapman, Enigma, King Sunny, Adé, Violent Femmes— just drained enough for the music to set my cranium resonating, but hardly dead. Midnight snack is Wheat Thins and Monterey Jack, accompanied by cheap white wine on ice and whatever AMC has to offer. To bed by 1:30 or 2:00, up at 9:00 or 10:00, read for an hour while my uniform whirls around in the landlord's washing machine, and then it's another eight hours spent following Mao's central instruction, as laid out in the Little Red Book, which was: Serve the people.

Popular/Public Reading Questions

Comment [RC80]: You have probably noticed by now that Ehrenreich has been building a up the many ways she is connected with her co-workers and customers. She is trying to show her assimilation to build up her ethos. In other words, if we begin to see her as a "real" waitress, we will believe her argument more. Despite beginning this paragraph by separating herself from the "nonprincesses," she is identifying with them here (e.g. "we") and also generalizing about all waitresses across the country in the final moments of this paragraph.

Comment [RC81]: In the next two paragraphs, Ehrenreich is sharing more details of her experiences that identify her as waitress. However, note that her descriptions are those of a college-educated writer. Would Gail describe Joan as a "militant feminist"? Would Timmy describe the speech of the dishwashers as rich bass, musical Creole?

Comment [RC82]: Although her description here reveals more of her daily life, her comparison between serving as a waitress and that of a Chinese Maoist reveals much about her analysis of the job.

1) Who is the audience for this article? How do you know? (Look for details in the text to support your answer.)
2) What is the purpose of this Barbara Ehrenreich piece? What is her research question? How do you know? (Look for details in the text to support your answer.)
3) Does Ehrenreich effectively achieve her purpose in this piece? Why or why not?
4) What research methods does Ehrenreich employ to conduct her research study? How can you tell?
5) How does Ehrenreich describe her research methods? Why does she describe her research methods in this way for *Harper's Magazine*?
6) How does Ehrenreich analyze her observational and interview experiences? How does this analysis compare with the analysis in an academic qualitative study?
7) How is this piece similar to the academic qualitative research studies?
8) How is this piece different from the previous academic qualitative research studies?
9) In what ways do the differences between the Ehrenreich piece and the previous academic qualitative research studies relate to audience?
10) In what ways could you rewrite the Ehrenreich piece for an academic audience?
11) Ehrenreich is engaging in total participation for her research. What are some advantages to engaging in total participation for research? What are some disadvantages to engaging in total participation for research?
12) In describing her experience conducting her qualitative research, Ehrenreich writes, "to my total surprise and despite the scientific detachment I am doing my best to maintain, I care." Is it completely possible for qualitative researchers to be detached from their research subjects at all times? Why or why not?
13) Are there any benefits for research in being emotionally engaged with your research subject? Why or why not?
14) What would you describe as Ehrenreich's bias? How does this bias influence her research? Is this influence positive or negative? Why?

Qualitative Cases

A. Using Observational Data
1. Come up with a research question about the most popular hangout spot on your campus. This could be the student union, a local coffee shop, the commons, a restaurant, etc., but everyone in class should observe the same place.
2. Go to this popular hangout and take 15 minutes to observe what you see, writing observation notes using your five senses—what you see, hear, smell, feel, and (perhaps) taste. Also, note the temperature and time of day. Remember, not to interpret what you observe but just record.
3. When you get back to class, discuss what you observed with your classmates.
4. Free-write for 10 minutes about what your major findings were—how did your observations answer your research question?
   - What prominent impressions did you have about your observations? Why?
   - What specific patterns did you see?

- Did you notice anything unusual or out of the ordinary?
- What did your observations tell you about the place you observed?

5. As a class, discuss your findings.
6. In a paragraph, write about what the prominent findings were, noting similarities and differences between different researchers' observations.

B. Using Interview Data
1. Interview two classmates to answer the research question of what writing strategies they use to write papers for their first year writing class.
2. Ask the two classmates these questions:
   - What strategies do you use to come up with ideas for your paper?
   - How do you usually start a paper? Why?
   - When do you usually start a paper? Why?
   - What is your typical writing process in writing your rough draft?
   - What is the easiest part of the paper to write? Why?
   - What is the hardest part of the paper to write?
3. Free-write for 10 minutes about what your major findings were—how did your interviews answer your research question?
   - What prominent impressions did you have about your interviews? Why?
   - What specific patterns did you see?
   - Did you notice anything unusual or out of the ordinary?
   - What did your interviews tell you about the study habits of your classmates?
4. As a class, discuss your findings.
5. In a paragraph, write about what the prominent findings were.

C. Using Interview and Observational Data
1. After conducting your interviews with two classmates on what writing strategies they use to write papers for their first year writing class, go to the library--or any other place on campus where students commonly write—and observe any students writing papers. Take 15 minutes and observe what you see, writing observation notes using your five senses—what you see, hear, smell, feel, and (perhaps) taste. Also, note the temperature and time of day. Remember, not to interpret what you observe but just record the details.
2. When you get back to class, discuss what you observed with your classmates.
3. Free-write for 10 minutes about what your major findings were from your observations of students writing—how did your observations answer your research question?
   - What prominent impressions did you have about your observations? Why?
   - What specific patterns did you see?
   - Did you notice anything unusual or out of the ordinary about students writing?
   - What did your observations tell you about the writing habits of the students you observed?

4. As a class, discuss your findings.
5. In a paragraph, write about what the prominent findings were for your **observation**.
6. Free-write for 10 minutes about how your findings from your observation compare and contrast with your findings from your two **interviews**.
   - How are your findings from your observation similar to your findings from your interviews?
   - How are your findings from your observation different from your findings from your two interviews?
   - Together, how do the findings from your observation and interviews answer your research question?
7. As a class, discuss how your findings about writing from your observation compare and contrast to your findings from your two interviews.
8. In a paragraph, write about what the prominent findings were about student writing from both your observation and interviews.

D. Analyzing Raw Interview Data
   1. The following raw interview data was taken from Nick Yee's "The Daedalus Project," a research project about online computer games. He originally used this data to analyze the reasons people get addicted to playing online computer games and the article is titled "On Therapy and Dependency." Analyze the following raw interview data with the research question of "What are the reasons that people get addicted to online computer games?" The brackets following the interview responses refer to the game, participant's gender, and his/her age.
   2. Organize (or code) the data around major patterns you see in this data. What are some recurring themes that you see? Why?
   3. After organizing this data around major themes, what are the major reasons people get addicted to online video games? Why? Write up your conclusions in three to four paragraphs, making sure to organize your analysis around the major themes that you found. Support each finding with specific interview data.

- Logging into [World of Warcraft (WoW)] at the end of the day is a great stress reliever, as it's one of the few times I'm not thinking (at all) about experiments, the future of my career, or anything like that. It allows me to relax, let things from the day go, and find a more healthy state of mind as the day ends. Also, although WoW gives me a list quests to do (sort of like work, in a way), I know I am in control of what I do, and I know that each task is, in the end, possible. Science just doesn't work that way. [WoW, F, 33]

- I'm a dentist and my wife is the head of an insurance company claims department. These are 2 fairly stressful occupations - we use [EverQuest (EQ)] to unwind. Neither one of us cares for the trash on television and this is something we can do together in a cooperative spirit. [EQ, M, 70]

- There was a time when finances were tight due to a change in employment; this created a lot of pressure and stress until things smoothed out again. Having the game to escape into when I came home in the evening was very therapeutic. [CoH, M, 39]

- It provided a way to divide my attention so that I could engage with the game while another, less communicative aspect could chew on what was bothering it. Ultimately, the space provided in that exercise catalyzed some insight and paved the way for change. [WoW, F, 51]

- It was an area where I could concentrate on the mechanics of the game and my relation to the game (it was mostly a solo-based [massively multiplayer online game (MMO)] gave me some space to deal with the issues I was dealing with. [WoW, M, 28]

- Divorce, troubles with my children, friends and parents. Sometimes I found myself really alone and with a lot pain. The best escape or refuge I found at this time was to go into the game to play and forget all that real life and pain. [Vanguard, M, 43]

- Played a lot when my mother was diagnosed and shortly thereafter died of pancreatic cancer; the game was a way to escape from a harsh reality [WoW, M, 26]

- I had a really horrible break up with a long term boyfriend and focusing on in-game objectives prolonged the healing process but also seemed to dull the hurt and let understanding seep in as opposed to being overwhelmed with grief. All-in-all, I believe WoW to have ultimately helped me get through the hardest time I've ever experienced. [WoW, F, 26]

- In the past, I have used the game as a proxy for achievement and accomplishment when I felt myself to be at a stagnant point in my life. For example, if I feel aimless in my career, I play WoW for its clear-cut, achievable goals (ie. getting loot, reaching a new level.) I have felt this to be very beneficial. Though I could see how it might become a substitute for real life for some people, I've used it as a way to get past those 'humps' where I don't feel satisfied. It gives me a sense of forward progress. [WoW, F, 23]

- Working away several thousand dollars of debt away, for example, takes a long time, and it's hard to feel like one is making progress when one has rent and etc. to pay as well every month. By contrast, WoW seems engineered to make the player feel as though he/she is making 'progress', which makes me feel almost like my time is less 'wasted' because at least I made progress in the game, even when I'm not making a lot of progress in my personal life. [WoW, M, 23]

- I use Guild Wars (GW) as a way to escape the stressors of life. There is more control in game. It is much easier, in most cases, to set a goal and achieve it in game. [GW, M, 25]

- I hated my job and was constantly dwelling on several disappointments and poor choices I had made. Suddenly I found a world that allowed me far more control than I had in the real one, as well as a place where I could be admired and respected for my skills. I latched onto it strongly. [WoW, M, 36]

- During a period of about a year where I was working at a job and role where my work was not particularly engaging, the MMO served as my means to exercise my brain, problem solve and more importantly work with others on problems. In the workplace, I was essentially working alone on most tasks, and have very little background or expertise in the domain I was working in. In the MMO (Wow), it was the reverse, as I frequently grouped with others, socialized and solved challenging in game problems. My game play during this period was very high, often playing late into the evenings, doing dungeon runs, raids; I was essentially filling a void that my job was leaving me with everyday. [WoW, M, 31]

- This is a regular state of life for me. I am a worrier, a mother, a full time worker, a wife. I feel my regular life is very boring ... as is my work. WoW lets me feel as if I am doing something interesting. [WoW, F, 31]

- It gives a sense of belonging somewhere, when in the RL sometimes you don't know where you belong. And since all games have clear goals (or at least you make them clear) is easier to achieve them, compared to RL [WoW, F, 27]

- I began playing because I had hours of free time, even with a full time job and a family, and I was bored and depressed. It really did make life more exciting and interesting at a time when I was feeling very disappointed in life, and gave me something to look forward to each day and especially on weekends. [LOTRO, F, 50]

- The people I met in game became an important support group for me (my only support group) —whether I talked to them about my issues or not. I don't know how I would have made it through that tough time without them. [WoW, F, 21]

- Once after an extremely painful breakup. It helped because the friends I had made online were more caring than most of the people I had called friends in real life, who blew me off. [Eve Online, M, 22]

- When I went through a depression it was a relief to have the online friends to chat with. For some reason it was easier to break the ice talking about difficult issues with online friends before talking with friends [in real life]. Once I had been warming up talking with online friends it was easier taking the step talking to [real life] friends. [WoW, M, 25]

- There is something about online friends that let you break through walls you normally put up with real life friends. You can be you without judgment and they give you advice the same way. Online people don't have to care about protecting your feelings as much so they give you the benefit of saying exactly what they think without regard to how it affects your relationship (as much). [WoW, F, 26]

- I live in a neighborhood where its dangerous to walk out my front door, and yet I can log onto World of Warcraft and talk to friends who are there for me and are willing to support me. I can in-turn support them in the best way I know how. [WoW, M, 19]

- I have many good friends, but they live all over the world and it's hard to keep in touch. Part of my depression stemmed from having no good friends who I could be in consistent *regular* contact with, so I spent most of my days somewhat lonely, and at a loss how to start over making new friends. Gaming provided me with a more stable and satisfying social life. I ended up making many good friends and becoming a well-loved officer in a fun guild. [WoW, F, 33]

- Several years ago I lost my husband and my daughter in an auto accident, leaving me the only survivor of my family. The constantly changing world of the MMO and the comings and goings of real live people provided something I needed at the time—a whole world that I was part of, yet no one there knew of my pain. I could interact with real people and not have the pressure of being 'that poor woman who lost her family', which I hadn't realized was weighing so heavily on me in real life, and which well-meaning friends tended to put on me. [DAoC, F, 48]

Qualitative Exercise and Project Ideas

Observational Research – Observational research can take place in most any publicly accessible area that has some culture to observe. For this project idea, consider Yasemin Besen's research on coffee shop culture, and then consider what you might study about similar coffee shop cultures in your area.

    a. Observe people at a local coffee shop. While trying to stay as inconspicuous as possible, take notes of everything you can hear, see, smell, feel, and taste. Take note especially of the people around you. What are they saying? What are their facial expressions, tone of voice, body language? How are they sitting or standing in relation to each other? What are they wearing? What are they drinking or eating? Record as much detail as possible, even details that may seem irrelevant. Remember not to interpret what you observe but just record.

    b. Analyze your observations. Look for recurring patterns in your observations. For example how did people's facial expressions compare with how they were sitting or standing in relation to each other? Look for other patterns of comparison that could be relevant like gender or age.

    c. Interpret your data. Why do you think you observed what you did? Refer to any lectures or anything that you have previously read to explain this. Also, you might want to do a quick library search looking at anything else that has been discovered about what you have observed. How does this material explain what you observed?

    d. Write about your observations. What were your major findings? For each finding, be sure to include the specific observational data from your notes that supports it. Be as specific and as detailed in describing this observational data as possible. Also, be specific in offering an explanation to your observations, including any authors and quotes in support of your interpretation.

Participant Observation – Participant observation research, like Barbara Ehrenreich's study of waitressing in Florida, involves researching an activity as an active participant. As a student, you are an active participant in many activities on campus, including going to class.

    a. Observe a class which you are a part of. Take notes and record patterns in where people sit, how they interact, what they do during lectures or activities. Remember, not to interpret what you observe but just record.

    b. Analyze your observations. Look for recurring patterns in your observations. For example how did people's facial expressions compare with how they were sitting or standing in relation to each other? Look for other patterns of comparison that could be relevant like gender or age.

    c. Interpret your data. Why do you think you observed what you did? Refer to any lectures or anything that you have previously read to explain this. Also, you might want to do a quick library search looking at anything else that has been discovered about what you have observed. How does this material explain what you observed?

    d. Write about your observations. What were your major findings? For each finding, be sure to include the specific observational data from your notes that

supports it. Be as specific and as detailed in describing this observational data as possible. Also, be specific in offering an explanation to your observations, including any authors and quotes in support of your interpretation. Consult with your professor in organizing and writing this for a particular audience, whether academic or popular.

Focus group – Consider researching a problem or issue on your campus for the benefit of the provost using a focus group. Develop that into a major research and writing project.

    a. Pick a current issue at your college/university that is controversial and that you know people have varying opinions on.

    b. Assemble a few people who you know may have varying opinions on this topic for a discussion on the topic. (Conducting a quick survey on this controversial topic could be a way of finding out exactly who has varying opinions on this topic and could help in selecting your group.)

    c. Write a set of discussion questions about this controversial issue for your focus group. Remember to start with general questions first and then move to the most specific. Remember to ask the most important questions first. Remember to keep your questions focused on the issue at hand. Remember to make your questions clear and to the point. Finally, remember that you are moderating a discussion and not a set interview. Be prepared to deviate from your questions if the discussion is productive. (Refer to the previous section on focus groups in this chapter.)

    d. Discuss this issue in your focus group, taking careful notes of what each person says about this issue and also how the group interacts and influences each other on this issue. Remember when conducting the focus group to keep your discussion focused yet casual. Also, make sure to get everyone to speak in the group. (Refer to the previous section on focus groups in this chapter.) Remember, not to interpret what you observe but just record.

    e. Analyze, interpret, and write about your participant observations by following b, c, and d of the Observational Research exercise above.

Qualitative Survey – Qualitative surveys that ask open-ended questions are a good way of amassing a lot of descriptive data quickly.

    a. Construct a qualitative survey asking what students' favorite movies are. Include another question asking them to describe why they like that particular movie. Finally, ask them to include their major, year, and gender.

    b. Pass out this survey to 40 random students on campus. Pass out your survey in a place frequented by many types of students who have many majors and where you will find an equal number of first year, sophomore, junior, and senior students. Avoid passing the survey out in places where you know just first year students hang out, for instance, or your sample will not be representative of the rest of campus.

c. Analyze your data. Place the favorite movies into logical categories. Make sure to clearly label these categories. Find patterns and similarities in your written explanations. Look for any interesting differences too. Notice any emerging patterns. Clearly label what these similarities, differences, and patterns are. For instance, is there a relationship between year in college, major, or gender and the type of movie students liked? How did the reasons students gave for liking a movie compare to the type of movie they liked? How did their reasons for liking a movie compare with gender, year in school, and major?

d. Write 2-3 paragraphs about the patterns you found in your data. What did you discover about what types of movies students' like? What did you discover about the reasons students gave for liking these movies?

e. Write 2-3 paragraphs offering possible explanations for why you discovered these patterns in your data.

Autoethnography – Autoethnographies are qualitative studies about yourself using artifacts, interviews, reflection, and analysis about your identification with a cultural history. They can look at your history as a writer, gamer, athlete, dancer, musician, and the list goes on.

a. Write a literacy autobiography about any aspect of your current literacy education in college. To get you started thinking about what you have learned about literacy in college, here are a few potential ideas, although please don't limit yourself to only these ideas. How did you learn to write a term paper for college? How did you learn to use the computer to conduct research for college? How did you learn to find sources for college papers?

b. Jot down notes about anything you can remember about how you learned this particular literacy for college. During this brainstorming time, do not edit or change anything. Just write whatever comes to mind.

c. Analyze your brainstorming notes on your college literacy. Look for recurring patterns in your data. Also, look for anything that seems especially important to you. What to you are the most important parts of your literacy education?

d. Interpret your data. Why do you think your literacy education occurred as it did? Refer to any lectures or anything that you have previously read to explain this. Also, you might want to do a quick library search looking at anything else that has been discovered about your particular literacy experience. How does this material explain your literacy experiences?

e. Write about your literacy experiences in college. What were your major findings how you learned this particular college literacy? For each finding, be sure to include the specific data from your notes that supports it. Be as specific and as detailed in describing this data as possible. Also, be specific in offering an explanations of your literacy experiences, including any authors and quotes in support of your interpretation.

Interview for a public article – Writing qualitative research for different audiences requires different rhetorical strategies. For this project, write a story using interviews as a research method for your campus website or newspaper.

      a. Interview several people associated with a controversial issue, exciting event, or interesting phenomenon on campus and use these interviews to write a feature article for the school newspaper. (Refer to the previous section in this chapter on how to interview people.)

      b. Write a feature for the school newspaper using these interviews. When writing the feature, use the advice below:

            1) Lead – The first part of a feature. It is designed to hook a reader's attention with some interesting, surprising, or well-written idea. It also answers the journalistic questions who, what, where, when, why, and how.

            2) Nut Graf – It is the "point" of the feature and comes at about the midway point. In some ways it acts like a thesis because it gives the point of the piece and focuses it. The nut graf can act like a summary of the whole piece. Make sure the nut graf is clear.

            3) Kicker – The kicker can be a resolution to surprises presented earlier, a repeated idea, or an idea to leave the reader thinking. The kicker comes toward the end of the feature. The kicker should bring closure to the feature. The kicker acts like a more interesting conclusion that leaves the reader thinking further about the issue the feature previously explored.

            4) Other tips to writing the feature – Language in a feature can be informal, although it should still be appropriate for its audience. Both sentences and paragraphs can be short. Sometimes a paragraph can be one sentence. A feature does not usually use formal academic transitions. However, the writing should still carefully lead the reader without letting the reader get lost. Finally, figure out exactly who your audience for the feature will be and write specifically for this audience. For example, if you are writing to other students on campus, you can use jokes and inside humor that you know students at your school will understand.

            5) Refer to the feature article entitled "Survey Shows New Media Can Be Compatible with Old" in the chapter on quantitative research, Chapter 8, for an example of a feature. The side comments should give you an even clearer idea of what a feature looks like and what the writing strategies for a feature entail.

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Chapter 8
Quantitative Research

What is Quantitative Research?

We make decisions using numbers most every day. It might be easy to see a computer purchase as a quantitative decision: first, you have to determine how much money you have to spend. Next, you would have to determine what specifications you would want on that computer: how fast is the CPU? How much RAM? What is the size of the screen? What type of video card? Next, you have to compare how much money you have to the computer you want. Finally, you have to research online or by going to the store where you can get the best deal on the computer you want for the money. These all seem to connect because you are comparing numbers to other numbers. But we use numbers to make many decisions in everyday life. Simple decisions such as how much to spend on lunch, what clothes to buy, or whether we can go out to a movie, are determined by how much money we have, or how much time they will take. These are all quantitative decisions. In fact, some of these decisions have multiple layers. Take, for example, what might be the simple decision of what to have for lunch. At one level, there is the matter of money. Do you have enough money to buy the food that you want? Another layer is time and convenience—how much time would it take to get the food you want, and how far away is it? Then there is a decision about a food's nutritional value, another quantitative decision if you are measuring the amount of calories, protein, or sugar.

So quantitative research, or using numbers as evidence, is quite common even if we don't recognize the many layers that such decisions require. Sure, the quantitative decisions we have discussed so far seem far removed from the measured rate that the polar ice cap is melting or polling numbers from a recent election. The concepts, however, are the same—using numbers as evidence to make a decision.

If we were to define quantitative research, we might say that it is any research that involves the manipulation of numbers to make claims, provide evidence, describe phenomena, determine relationships, or determine causation. In such research, it is the numbers of a phenomenon, an opinion, or the results of an experiment that provide evidence for a researcher to make claims. Quantitative research uses a number of methods to collect, interpret, and report what these numbers mean, but these methods are usually very systematic in order to maintain the consistency of these numbers across different contexts. For this reason, quantitative research is said to be **generalizable**, which means that its results can be applied to other contexts and situations through statistical or mathematical modeling; in other words, this type of research can be used to make predictions about what was being studied, whether phenomena, opinions, or experiments. For example, Google has a tool called Google Trends (http://www.google.com/trends) that keeps track of searches that people type into their search engine tool. Recently, Google reported that their search data for "flu symptoms" matched the

Centers for Disease Control (CDC) flu studies from the last few years, and they were in fact able to report those numbers 10 days quicker than the CDC.

Another important concept to quantitative research is **sampling**. In the Google flu example, although the trend that Google discovered matched the CDC trend, it isn't a measure of every single flu case in the United States. There are people who don't use computers or don't use Google. Similarly, not everybody reports to the CDC or to a hospital when they get the flu. However, a sample of a population, if large enough, can make predictions about that population. Let's look at another example, this time from business. Imagine a major soft drink company wants to create a new energy drink. Their drink development team has come up with five different flavors, but they aren't sure which one they should market, so they decide to have a focus group. The focus group consists of randomly selected volunteers who don't work for the company, but who are paid to give their opinions on products. Random selection means that they are more likely to represent the population because, generally speaking, a random sample of the larger population will often represent that population's diversity. This focus group will decide for the population because it would be impossible for the soft drink company to survey everybody about the drink, just like it would be impossible for Google or the CDC to get flu data from the entire population. For more on sampling, refer to the section on Sampling that follows.

A lot of quantitative research is also deductive, which is to say that it is usually testing a hypothesis that has already been established before the numbers have been collected. Numbers are important to determine when a hypothesis has been confirmed or not because they are **precise** measures. Numbers are precise because they are mutually exclusive and relative to each other. What this means is that a numbered result cannot be any other number; furthermore, a number is usually in comparison or relative to other numbers. For example, if you were to tell somebody that you are a good student, that could mean a lot of things; however, if you were to say that you had a 3.82 GPA, then that is a more precise measure. Of course, this precision also leaves out much of being a good student—everything you know and are that isn't tested or graded in the classroom such as your extracurricular reading, writing, and other activities—but it is easy to see from the GPA just how good a student you are. Because of this precision, researchers in quantitative research are usually looking *for* something—a particular number being met before a hypothesis can be confirmed or rejected. Similarly, your college or university was looking for a minimum GPA or SAT score to be met before you could be admitted.

You are probably familiar with many types of quantitative research already. From measuring respiration in a biology class to taking a survey on the Internet, you have probably been either the subject of quantitative research or the researcher conducting it. What counts as evidence in quantitative research are the amounts of data collected. However, in quantitative research, it is important that the researcher determine beforehand what number will count as significant. **Significance** in quantitative research is a very specific term—it means the result is important. Although it may sound unusual, the researcher determines what amount or number is

significant. Let's explain this a bit more. Imagine you are taking a survey about a new smartphone. The survey asks a number of questions about certain features and whether you would like to see these features or not. One feature is a security feature that requires a fingerprint to unlock the phone. If one person doesn't like the feature, but another does, it doesn't seem that big of a difference. But imagine a thousand surveys were completed about this phone. If 200 people did not like the feature, but 600 did, and 200 people were indifferent, what is the company to do about the feature? Do they risk not implementing the feature to satisfy the 200 people who didn't like it? What about the 200 people who were indifferent to the feature? As you can see, in quantitative research, it is important that the researcher determine what these numbers will mean and how significant they will be. Just because one response is more than another doesn't make it automatically clear what should be done or how important the difference is.

Because quantitative research has precise measures that are generalizable, two more terms are important to understand when doing quantitative research. The first is **reliability**. Reliability means a test or measure consistently reveals the same results. The second is **validity**. Validity means that the test or measure actually shows what it is intended to show. Reliability and validity are often thought to be the same thing, but as you can see from the next example, they are different. If you created a survey for college students that asked them to rank their favorite music out of ten options, and of the 100 surveys you gave out to a sample, 50 students said their favorite music was opera, would this be reliable and valid? In fact, if you were to give the same survey to the same sample, they would probably say the same thing, so this is a reliable measure, but knowing what you know about college students, you would probably think it was not valid. Maybe the survey was only given to music performance or voice majors. In this case, you can see that a random sample is very important in any research that is intended to be generalizable. In contrast, if you were to give the survey to a different 100 college students, would 50 say they thought opera was their favorite music? Probably not. As you can see, it is possible to have reliability without validity, but you can also have validity without reliability. If a researcher were to give a similar survey as that above, but instead, asked qualitative, fill-in-the-blank questions about what music type students like, there would be so much variability that it would be difficult to get a consistent or reliable answer. In this case, it would validly show that college students appreciate everything from jam bands to hard bop to ska punk to afro-pop, but it would not show any consistent patterns except that people classify music differently.

Sampling

Sampling means taking a small group of people from a larger population to represent that population. For example, if you wanted to learn whether college students preferred Mac or PC computers, you could survey every college student, but that would cost too much, and furthermore, it wouldn't necessarily give you different results than if you had surveyed a representative sample of college students. One of the interesting things about quantitative research is that a properly derived sample from a population will, in fact, give you similar

results to surveying an entire population. Where it gets tricky is when you have particularly large populations, such as the entire U.S. population, because with greater size comes greater diversity, and trying to represent that diversity in a sample is difficult.

Not only does sampling refer to the selection of human participants, but to materials, animals, or any other type of object of study as well. For example, if you were testing a pesticide on mountain pine beetles, you couldn't test it on all beetles—you could only find a sample.

There are many different types of sampling, but we will discuss four types that are the most useful to know and use in your research. Each type of sampling has its advantages and disadvantages. Although a true random sample is often the best, any of the following are useful. Just make sure to describe which of the following four methods was used when you write about your method of research. Your research audience will usually be familiar with these terms, so simply writing, "a convenience sample of 100 college students was selected" should be enough for academic audiences.

> **Convenience sample** – convenience sampling means that you grabbed a sample of people or materials that were convenient and most available to you as a researcher. There is no telling how representative a convenience sample is of a given population because the sample was not picked with any sort of purpose except that it was available to you. Journalists often do convenience sampling for stories because they are trying to meet a deadline, and it is easy to ask the "average" person on the street for his or her opinion. A lot of informal surveys also use convenience samples. Just surveying your close friends would be an example of convenience sampling.

> **Purposeful Sample** – purposeful sampling refers to selecting people or materials that meet particular criteria. If you wanted to study video game players, you would want to purposefully sample only video game players. You might have to go to an Internet game café or local gaming clan to get a large enough sample. Sometimes studies will sample a larger group of people but only use data from a purposeful sample. For example, a questionnaire might be given to all students about their video game playing habits, but only those participants who answered a specific series of questions on that questionnaire might be used in the final study as a purposeful sample. In this case, researchers will ask all students to prevent a demand effect problem with research in which some part of the study influences how the participants respond rather than giving an honest response.

> **Stratified Sample** – a stratified sample is a combination of a purposeful sample and a random sample. Sometimes you want to target some variable or variables in your study, so you might purposefully be aware of those variables when selecting from a random population. For example, if you were studying whether gender had an influence on iPod color choice, you would want to make sure you surveyed an equal number of women

and men, and all of which would have to be iPod owners. Thus, you have a sample of iPod users, and two sub-populations, one of women and one of men.

Random Sample – a true random sample is not as random as it sounds, but is based on a mathematical model that any member of a given population has an equal chance of being selected for the sample. This may sound simple, but let's imagine you wanted to get a random sample from a college campus. How would derive it? Not all students go to the library, or student center, or to athletic events, yet, these are all students who are part of the student population, as are the students who don't go to those places. Do you see the difficulty? Just asking six of your closest friends to participate is not random. Even standing outside of the library on a Tuesday, asking everybody who enters to participate is not random either (if going to the library was typical of a given population, then libraries would be far busier than they already are). Truth be told, selecting people entering the library is more random than asking your friends, or even everybody on your dorm floor, but it still is not completely random. For such a study, a true random sample might be selecting every student with a student number that ended in odd or even number. Random sampling depends on your research design; resources also often determine how you select your participants. In more complex research designs, computer programs are used for selecting a completely random sample. Despite all of these concerns, use your best efforts to obtain a random sample by recognizing that if you are surveying people or testing materials of a given population, you want to make sure to find a sample in which every member has an equal chance of being selected and can represent the diversity of the population from which it was drawn.

Discussion and Practice

1. Imagine you wanted to study student movie attitudes at your school. You decide you want to conduct a quantitative survey.
    a. What would be the advantages and disadvantages of each of these sampling methods for selecting participants to take your survey?
    b. How would you go about getting a representative sample using each of the four methods?
    c. What audiences would care about your sampling method and why?

Who Does Quantitative Research?

Although you may think of quantitative research as most prevalent in the sciences, such as biology, chemistry, or engineering, almost every academic discipline and profession uses some type of quantitative research. There is the obvious use of surveys that quantify experience or opinions, but there are also other measures such as testing that equate a number with level of ability, intelligence, or understanding. There are many different ways to collect and manipulate numerical data, only some of which are connected solely with one or a few disciplines.

In psychology, numbers are used to count frequencies of a given phenomenon or applied to an action so that it may better be analyzed or compared to others. When a researcher applies a number to an individual's ability or intellect, it is called psychometrics. Intelligence quotient (IQ) tests are a type of psychometric measure, although there are many other tests used for determining intelligence. Determining significance with such measures is usually based on a large sample of people measured so that there is a valid comparison of the measure. One recent long-term study published in the journal *Intelligence* examined whether later school performance was related to early intelligence measures in children. The researchers found that higher intelligence at age 11 was related to better school performance at 16, with girls outperforming boys in all subjects but physics (Dreary et al., 2007).

In sociology, trends in migration, populations, disease, marriage, income, and other quantitative measures are often used in a descriptive way to characterize societies or communities and also to make predictions when such issues are applied to other communities. In addition to trends in populations and communities, sociology also looks at more local issues. For example, a 2007 study published in *The Social Science Journal* looked at the effect of smoking bans on alcohol consumption, finding that such bans hurt beer and spirits demand, but increased demand for wine (Gallet & Eastman).

Physics and engineering research is based mostly on quantitative research. Let's take a specific example. There is a lot of research that goes into designing a bridge, but one small part is measuring the tensile strength of the steel that will be used in the bridge's construction. If a researcher knows the ultimate strength and yield strength for the steel, he or she can predict the support and foundation required for that bridge. Previous measurements of tensile strength are reliable and valid and thus determine the future tensile strength measures. However, when considering these issues, new metal alloys and processes of manufacture are constantly being researched to provide more dependable engineering materials. For example, a recent article in the journal *Engineering Fracture Mechanics* compared current train wheel alloys with a new nanostructed alloy that was shown quantitatively to be less prone to failure (Zhang & Gu, 2008).

Even in the humanities, such as history and English, quantitative studies are conducted. In English and linguistics, there are studies that show frequencies and types of writing errors. There are also studies that chart the frequencies of a word or group of words. For example, one study published in the *Journal of Pragmatics* compared frequencies of metadiscourse in academic, journalistic, and fiction writing (Hempel & Degand, 2008). Simply put, all texts are filled with content words and function words. Content words are the ideas, and function words or metadiscourse (literally, words about words) help you organize the ideas for an audience. Phrases and words like, "for example," "therefore" and "on one hand" are types of metadiscourse. In this study, Hempel & Degand found through quantitative research that academic writing has more metadiscourse than does fiction or newspaper and magazine writing. This is an important distinction to remember in considering how you write for different audiences and genres. In history, there are quantitative studies on everything from the

railroad's economic impact on communities at the turn of the century to the great depression's impact on art.

Because quantitative research comes in different varieties, there can be a lot of debate about when and how to use such research. Although quantitative research seems compelling in real world application, there are still many variables that cannot be controlled for. Space probes and satellites can still go off course, and bridges still suffer structural problems. While some have critiqued quantitative research in the social sciences and education, they are still useful in predicting future trends. For example, even though SAT scores are debated as a measure of accepting students into college, they are valid in predicting that, generally speaking, those with a high score earn high GPAs in their first year of college. In medical fields, doctors can only make predictions based on past frequencies of a given treatment's effect on a disease or condition—they cannot be 100% sure all the time. It is important to remember that quantitative research is only the best tool for discovering and recording knowledge for particular situations, and it isn't inherently better or worse than any other type of research.

Discussion and Practice

1. Using your library or the Internet, find a quantitative study related to your major. If you don't have a major, look for a quantitative study related to a field that interests you. Ideally, you should find a study or piece of research and not just an opinion or newspaper article. In other words, look for something published in an academic journal or through an online database. Your librarian should be able to help you with this task if you are having difficulty. Obviously, for some majors, this will prove to be easier, but we guarantee that for every major, you will be able to find a quantitative study. Once you found this study, read it as best you can and write a short rhetorical analysis. Namely, what is the purpose, who is the audience, and who is writing this piece? Also, discuss how difficult or not it was finding a quantitative study on your major. Why do you think that quantitative research is valued (or not) for those in your major?

Where Does Quantitative Research come from?

What makes quantitative research quantitative are the amounts and frequencies of phenomenon. However, not all numbers are created equally. In quantitative research there are different types of numbers, and their ability to support an argument as evidence depends on the type of number they are. The source of the number or where it came from also changes what can be done with the data.

What Are Some Types of Quantitative Data?

Quantitative data that the researcher collects can come in one of three forms: **raw data**, **aggregate data**, and **inferential data**. All studies begin with raw data, and the researchers

manipulate that data into evidence either by adding groups together or performing a statistical test.

Raw data is just a number or series of numbers—the numerical results from a survey or test that have not been manipulated or statistically analyzed yet. (Turn to the end of this chapter, Quantitative Cases, Section B for an example of what raw data might look like.) It is the best source because it hasn't been manipulated. As evidence, however, it isn't very good because raw numbers don't mean anything for your audience. Let's imagine a study looking at the average age in months that babies in a particular study started talking. The raw data would consist of just the numbers: 8, 7, 8, 9, 10. There is no real argument here, just numbers.

Aggregate data, on the other hand, has been manipulated so as to give a collective result for a series of data. The collective result is usually expressed in a measure of central tendency (we describe this process later in the chapter). As evidence, aggregate data is good in descriptive studies because it can be used to make an argument. For example, in the series of numbers we presented in the raw data description (i.e., 8, 7, 8, 9, 10), we can make an argument that babies *in a particular study* first started talking, on average, at 8.4 months. This is an aggregate of the raw data. Note that we aren't arguing that babies will always talk on average at 8.4 months, because all we did was compute the average of a past study and did not compute whether it was representative of future populations or not.

Inferential data means that the source of data has been statistically manipulated so as to make a prediction or show a relationship. These inferential statistics make the best argument because using a statistical measure, we can make an argument that most babies will start talking at 8.4 months, or even that a particular gender might begin talking before another gender. Note the difference between the aggregate and the inferential is that we can make a claim beyond the study sample and into the future.

Let's imagine another simple example. You want to create a survey about social networking websites like Facebook or Instagram. You are interested in finding out if people prefer one social media network or the other, and want to ask them further to rate the features of each of the websites. You also ask for basic demographic information such as age, ethnicity, education, and gender. As a first stage, the responses to the survey are raw data. On one hand, it is the best source because with all the raw numbers, you have the most options to make an argument with. However, you wouldn't just put raw numbers into a research report—your audience would be overwhelmed. As evidence for an argument, raw data is not very effective. Thus, you decide to do a simple measure of central tendency, which means finding the average, of what age or what genders use either Facebook or Instagram. This aggregate data can be used as evidence to help you better make an argument about which social networking site is used more often by your study participants. However, as a source of data, measures of central tendency or averages just tell the audience what you found in an organized way, and they don't say much past that. If you wanted to show whether gender and/or age contributed to liking a particular website or a website's features, or if you wanted to make some claim that your sample was

representative of a larger or future population, you would have to calculate inferential data. Unfortunately, even though it is the best evidence for your arguments, the inferential data as a source for other researchers leaves them the least to work with—they would have to replicate your entire study if they wanted to study some quality that you didn't study.

Most basic surveys and questionnaires that you see reported in newspapers use aggregate data. As a source, they are easy to report and understand, and provide straightforward evidence for simple arguments. Most academic studies and articles in journals use inferential data as evidence because it can be used to support complex and substantial arguments. When we consider secondary sources, or those sources that are a report of what other researchers have done, almost all data presented are either aggregate or inferential. Only you, as a researcher conducting your own study, will be able to collect raw data to later manipulate into an argument. Most published studies do not dump all of their data on the page—for one thing, it would be overwhelming and confusing to an audience, but for another, a researcher or writer wants to make very clear and focused arguments, and all the data might clutter that argument up.

How Do Numbers become Data and Evidence?

Not all numbers are created equally. Take a moment to consider temperature. Imagine you were planning a trip to visit some friends in San Diego in July. You are trying to figure out what clothes to pack. If you ask your friends, they might say that the weather is nice, but what does that mean? Nice isn't relative to anything else, so you ask them to compare the weather in San Diego to where you live currently. They might say that it is cooler in San Diego than where you live, but that still isn't the best measure, so you look up the forecast on the Internet to find out it is supposed to be 76 degrees while you are there. In this example, there are three types of evidence: name-only ("it's nice"), relative ("it's cooler than where you are at") and a continuous, specific measure ("it's 76 degrees"). This example represents three of the four common types of numerical evidence.

Manipulating raw data depends on which one of the four types of numbered data you have collected. Although all numbers are a precise, mutually exclusive indicator of a phenomenon, not all of them mean the same thing.

> **Nominal** – nominal numbers aren't "true" numbers but just signs standing in for some other quality. "Nominal" means in name only. Nominal numbers are often used when coding qualitative data. When there is a lot of qualitative data that needs to be condensed and analyzed, it is often coded with a letter or number to indicate a series of events, a quote, an opinion, or some observation. Rather than write a particular qualitative phenomenon down every time it is seen, many researchers will create a code sheet that has a number or letter code. This is nominal data because the code doesn't mean anything outside of the research—however, these codes do make it easier to count the data for quantitative research. In fact, the only manipulation of nominal data

is counting frequency and mode, or counting the result that occurs most often. Gender is often nominally coded—it has a number quality in that it is mutually exclusive, people either identify as male or female, but there is no average number that can be computed from it. In our previous weather example, "it's nice," represents the nominal. We could apply a number to it, 1, 42, or 100, and it wouldn't matter. Why would we want to apply a number to it? Imagine you were doing a study of what 100 people said in interviews about weather in California—in some cases, it might be easier to count the frequency of people who said "it's nice" if we have a code for it rather than always have to count every time "nice" was mentioned.

Ordinal or rank –ordinal numbers are also applied to a phenomenon by a researcher, but they are continuous, which means that 2 follows 1, follows 0. Ordinal numbers can be averaged, and otherwise manipulated. The difference is that ordinal numbers don't have a consistent scale. An example of ordinal numbers is a movie review score on Netflix or Facebook. We might say that a 2 star movie is better than a 1 star movie, but how much better? There is no indication from an ordinal number how much better a 2 is from a 1. Is a 2 star movie twice as good as a 1 star movie (1 X 2 = 2)? Is a 4 star movie twice as good as a 2 star movie? Ordinal numbers can be manipulated to provide descriptive data (e.g. "Tropic Thunder had an average rating of 3.95 stars"), but they are difficult to compare to other numbers because they aren't on a consistent scale. Ordinal data is most often seen with some Likert scales (see **What is a Likert Scale?** later in this chapter) and other types of arbitrary rankings. Notice these are rankings: for ordinal numbers, a higher number is more than a lower number. Also notice that a higher number isn't "better" than a lower number; it is just "more"—you could say that in the movie Star Wars, Darth Vader was rated with an evilness factor of 5 and Han Solo was rated with an evilness factor of 2. You wouldn't say that Darth Vader is "better" than Han Solo. Returning to the weather example up above, we can see that "it's cooler than where you are" is relative and thus would be ranked differently than the temperature of your home town.

Interval – interval numbers scale consistently and they are continuous. The distance between the numbers is equal, hence why they are called interval. Temperature is the classic example of interval numbers. Ten degrees colder holds the same range as ten degrees warmer. Because of the consistent ranges between a number or series of numbers, interval data is considered true quantitative data in that not only do the numbers mean something, but they can be consistently added or subtracted from each other to gain a result that also means something. It should be obvious that the "76 degrees" from our previous example is an interval number.

Ratio – The major difference between interval data and ratio data is that ratio data has an absolute zero, which would mean that a given phenomenon doesn't exist. This is important quality for many types of research. Age, weight, and height are ratio measurements because there is an absolute zero, and that zero means absence of the

phenomenon. By contrast, if you were to say it was zero degrees, as in the interval measurement of temperature, the zero is merely indicating where the temperature is on a scale, whether Celsius or Fahrenheit, negative or positive, but there never isn't a temperature, or absolute absence of temperature.

Discussion and Practice

Consider you are watching a football game between the Denver Broncos and the Pittsburgh Steelers.

1. Indicate which of the four types of number the evidence is (nominal, ordinal, interval, or ratio):
    a. Attendance at the game
    b. Current score
    c. The down
    d. Player jersey numbers
    e. Length in yards of a play
2. Indicate which of the three sources each of the arguments is (raw, aggregate, inferential):
    a. Rothlisberger passed for 8, 6, -2, 25, 55, 21, 44, 4, 6, 3, 5, 15, 30, 41, and 13 yards.
    b. Siemian passed for 293 yards
    c. Quarterbacks with higher jersey numbers will have higher pass yardage than those with lower jersey numbers.
3. Consider the variety of quantitative sources and evidence at a football game. What sources and evidence would appeal to your friends when making an argument about the game? What sources and evidence would appeal to those watching ESPN or a local sportscast? What sources or evidence would appeal to somebody who didn't know much about football?

What Are the Advantages and Disadvantages of Quantitative Research?

Because not all numbers are the same, some researchers do not consider the use of nominal or ordinal numbers in the social sciences like psychology and sociology true quantitative research. Don't worry too much about this critique. Simply put, different research questions and contexts call for attention to these differences in measurement and numbers. What is important to understand is that researchers use quantitative research to make arguments of precision, but this is a conscious rhetorical choice of the researcher.

Sometimes your **purpose** will require that you use certain types of numerical data, such as in doing a study of whether a drug is effective so that the FDA might approve the drug for sale. Because qualitative and interpretive types of research aren't very good at predicting future effects, quantitative data would be required here. As an audience, however, the FDA routinely accepts all types of research, whether text-based, qualitative, or quantitative.

In other situations, the **audience** might require numerical data. For example, if you have ten minutes at a meeting with investors to share results from a focus group about a new product, it might be easier to code a number of the interviews and observations quantitatively and tell the investors that a certain number of people indicated satisfaction with the product. This type of evidence will appeal to that audience. On the other hand, if the research & development department of your company wants to improve the product before release, they will want more comprehensive and qualitative data—they will want to know *why* the focus group was satisfied with the product. The most important point is to pick the most appropriate and precise evidence for your rhetorical research and writing situation.

We started this section by talking about how the source of the number changes the meaning of that number, and we further talked about how different types of numbers aren't the same. At first glance, this may go against what you thought numbers represented. For example, you may have considered your English or writing classes as more subjective and open to interpretation than math classes because in math there always seems to be a right and wrong answer. That has more to do with numbers being mutually exclusive rather than any inherent subjective/objective quality within either. Mutually exclusive is just a fancy way of saying that a 1 equals a 1, and that not only can't it be any other number, but another number can't be it. When writing, you might think a sentence like, "I ain't gonna go to that party" is wrong. Well, if you were writing that to a close friend, it's not "wrong." If you were writing it as part of a movie script, it isn't wrong either. In fact, you could be writing the sentence in an academic essay to make a point about the party or the person saying it. Thus, the sentence can be right or wrong depending on the context (see Chapter 1). Just like with writing, certain numerical data is better for arguing certain cases to certain audiences than other numerical data. What makes a number a number is that mutually exclusive quality. Numbers aren't inherently better at making arguments, but their mutual exclusiveness make them better at providing precise evidence for certain types of arguments.

Discussion and Practice

1. Besides those issues we have already discussed, what are some further disadvantages of quantitative research? What are some further advantages?
2. In 1976, the Food and Drug Administration (FDA) banned the use of FD&C No. 2 commonly known as Red Dye No. 2. This came after a Russian study found a link between the substance and cancer. Later studies in the U.S. using rats found that excessive amounts posed some risk, a *Time* magazine article at the time reporting that a human would have to consume "7,500 12-oz. cans of soda pop containing Red No. 2 every day to reach the rats' level of consumption" in the study. The popular candy M&Ms stopped producing red M&Ms at the time even though they did not use any Red Dye No. 2 in their products. Given the qualitative and quantitative evidence available, why didn't the company that produced M&Ms use a quantitative argument and continue to produce red M&Ms? At what points does quantitative data or research not become as effective at persuasion?

3. Any research choice is a rhetorical one in which you consider audience, purpose, and your own position as writer. Consider the following rhetorical situations. What quantitative evidence would each of the audiences be interested in:

The effectiveness of a new ADHD drug.	- Doctors/psychiatrists - Parents of children with ADHD - Public in general
Proposed changes to a kitchen line at a restaurant to decrease the time it takes for an order to be prepared.	- Chef and cooks - Owner/manager - Customers
Focus group results about a new product that a company wants to release to market.	- Company Research and Development - Investors - Public in general
Music preferences in the 1930s.	- Historians - Musicians - Record companies
Your library's collection and circulation data.	- Librarians - Students - Professors

How is Quantitative Research Done?

Deciding whether to do quantitative research requires first that you understand what your audience and purpose expects from your argument. Sometimes your assignment in a class is dictated by the teacher who expects that you follow a specific method, but in many situations outside school, you will have to decide whether numbers as evidence are the best way to persuade your audience. If they are, you have to make two big decisions: how will you design your research and how will you carry it out?

In quantitative research, there are **methods** or ways of collecting the numbers, but there are also overall **research designs** which determine what the numbers or quantities represent. For example, earlier in this chapter, we referred to a comparison of Google and CDC flu data as well as a marketing survey on a smartphone—in both cases, these would be **descriptive designs**—they are only describing what has occurred in the past. This data was also obtained from real-life activities without a researcher interfering, so it is considered **non-experimental**. The smartphone survey was conducted outside of a carefully controlled environment, and it collected only responses to the questions and made no other predictions. After all, the people surveyed might already have a smartphone they are happy with, and they may not be looking to buy another one any time soon. On the other hand, people who expressed dissatisfaction with certain features might still buy the product when it is released. The flu data from Google and the CDC were not collected from a questionnaire like the smartphone survey, so they used a different method, but their research design was similar—to show trends and descriptions of a phenomenon.

Alternatively, you can design a survey and manipulate the results mathematically to make a prediction. This type of design is called an **inferential study**. In such a study, results of previous surveys can be compared to the current survey to predict what survey responders will or have done. Another type of inferential study is one showing a relationship or correlation between two variables. There are many variations on these types of studies, and many quantitative studies can combine multiple methods to describe, infer, and correlate the results to provide evidence for claims..

What Are Some Appropriate Quantitative Research Designs?

With quantitative research, the first decision is in the design of the study, whether the research is descriptive or experimental in nature.

Descriptive studies often do just that—describe a quantity of a phenomenon. For example, a questionnaire might ask people in a community what types of restaurants they would like to see in that community, and even whether the people might visit a specific restaurant if it were to open there. There is little predictive value to such a survey since people are only describing their current attitudes and beliefs to the questionnaire. Furthermore, the researcher isn't intervening or interfering into the respondents' lives except to ask questions and gather answers. It is only a collection of descriptive responses to a series of questions.

Descriptive study design is also commonly associated with collecting data that exists regardless of the researcher. For example, movie box office amounts, student GPA, baseball batting averages, traffic accidents, and music sales are all based on a descriptive design that collects what occurred in the past in a descriptive way.

Experimental study design looks to test whether changing some condition or aspect has an effect on another condition or aspect. There are a few types of experimental design that cannot all be covered in this textbook, but we are going to talk about the most common. A pure experimental design looks to isolate most if not all variables. A variable is a condition that might influence the result of the experiment. The condition can be age, sex, income, and education—they influence how a person responds to a question. Ideally, in a pure experiment, you want to isolate the independent variables so that you can study the dependant variables. A dependent variable is a result of one or more independent variables. A **dependent variable** is also the variable that is being measured in the study. The **independent variable(s)** act on or influence the dependent variable in the study. It can be confusing to tell the difference between the two types of variables sometimes, and even trained researchers have been known to confuse the two. To put it into better perspective, think of a baby. A baby is dependent on his or her parents for everything. Everything the parents do to the baby has an effect on the baby. In other words, parents are manipulating the independent variables to have an effect on the baby, who is the dependent variable in this example. But this relationship happens in reverse too. For example, the baby learns to manipulate an independent variable by crying, which in turn leads to a parent coming to the baby, the dependant variable.

As you may recognize, especially in doing many experiments, you cannot control all of the variables. Outside of Petri dishes in a carefully controlled lab, many real-world experiments are, at best, **quasi-experimental designs**. That means that the research is experimental in that the researcher is intervening by manipulating some variables, but that not all the variables in the environment can be carefully controlled, so it is only partially- or quasi-experimental. Independent variables may or may not have an effect, so you attempt to capture as many as you can to isolate which ones are influencing the dependent variable. For example, let's imagine you were studying a new drug. You select a random sample of people, old and young, male and female, vegetarians and non-vegetarians, and the list goes on of potential variables. Once you consider as many possible variables as you can, you conduct your experiment to see if the drug has the intended effect or dependant variable. However, even if the drug has the intended effect, this effect actually might be a result of some other variable that the researcher couldn't control for—these are called **confounding variables**.

As you can see, experimental, or quasi-experimental designs differ from descriptive designs based primarily on whether the researcher is interfering or intervening to change something from its natural state. In a descriptive design, you want the responses from the participants or the frequency of a phenomena as it occurs naturally. If you look at Chapter 7 on qualitative research, the intention there is to observe or interview people in their natural state without you, the researcher, interfering or somehow influencing the response. However, descriptive quantitative research differs from qualitative research because you are quantifying responses or behaviors and therefore limiting the options so as to precisely measure the amount or degree of an effect.

A third design is **inferential statistical analysis**. We have already discussed inferential statistics as a source of data, but fully developing an argument with that data requires a particular study design. This design can use new or already published data to infer or predict a future effect or phenomenon. **Inferential designs** are also used to look at **correlations and causations**. The simplest statistical tests are used to compare a sample to a larger population to see if the researcher can infer that a phenomenon that he or she has seen in a study also appears outside of the study. More complicated tests look at correlations or relationships between two variables. If you wanted to find out if the number of hours a person plays videogames affects his or her GPA, you would statistically measure a correlation between the two variables (video game hours played and GPA). Notice this isn't causation. **Causation** means that a particular independent variable (let's call it A) always or usually leads to a dependent variable (B). In our videogame/GPA study, the researcher cannot control which one comes first. It could be that these two conditions are related, but maybe the number of hours played leads to lower grades or lower grades leads to more hours played—there's no way to tell which one comes first. The best the study can do is argue that these two phenomena are or are not related (hence, the term correlated, literally meaning "together related"); it cannot determine which one causes the other.

1) In a real-life setting/context, is it possible to conduct a truly experimental study?
2) Why is it usually impossible to create a study that studies causation outside of a laboratory?

What Methods Can You Use to Carry out your Research?

In addition to overall research designs, in quantitative research there are also many methods that a researcher can use to collect data. The most common methods for collecting data are questionnaires, testing, and systematic observations:

Questionnaire/poll/survey – Sometimes called a survey, a questionnaire is a series of questions that a person answers to provide descriptive data for a researcher. Polls usually focus on one question, such as whom you might be voting for in an upcoming election. Questionnaires are used primarily for descriptive designs, but the results are often used for inferential statistical analysis also. Questionnaires are a low-cost and effective way to collect precise data from a large sample of people who can remain anonymous. Questionnaires are not very good for collecting detailed information, however. Their questions can be misunderstood and there is no way to clarify a question or response, so there is only one chance to get it right. Additionally, because they are anonymous, there can be problems with reliability and validity if the person taking the survey doesn't take it seriously and doesn't answer honestly.

Testing – Testing refers to measuring the effect of one or more independent variables. Testing is more commonly used in the sciences to see if changing some environment or conditions will change the outcome or effect of another condition. The point of testing is to look for difference between one group and another. One form of testing you may be familiar with as a student is an exam. A professor gives you an exam to see how much you have studied, read, or paid attention during a lecture. What is presumed in an exam is that if you were given the exam before the material was presented, you wouldn't do very well. Exams are an imperfect testing mechanism because if everybody does poorly on the exam, then maybe it has nothing to do with number of hours studied but in how well the lecture was given (or it could just mean that nobody studied). A more careful, experimental approach in educational research, both in the corporate world and in schools, is the use of pre-tests and post-tests that look at whether a particular presentation or training seminar was effective. In these cases, the test is given before the material is presented, then again after, and the difference is compared to see what effect the presentation had. Of course, testing more commonly refers to measuring the before and after effects of a variable or collection of variables in an experiment. Testing is best used when there is a manipulated variable, which is the usual method for experimental designs. Although we have emphasized that testing is more appropriate for experimental and inferential designs, you can use testing in a descriptive fashion as well. Think back to the example about exams. Most exams that you take in a university setting are, in fact, descriptive tests. There are intervening variables (e.g. lectures, reading, studying), but these are independent, which is to say that they are voluntary and not controlled for.

Systematic observation – Systematic observation refers to the careful counting of a phenomenon in a natural or laboratory setting. It is systematic because terms are defined beforehand as to what the researcher is looking for, and it is quantitative rather than qualitative because the researcher is counting the frequency or the degrees of change of the variables observed. For example, if you wanted to look at whether gender was a variable in where students sit for class, you would count what row students were sitting in and what gender they were in multiple classes. Because observational research can be overwhelming due to the amount of data that there is to observe (see Chapter 7), it is important to establish a system before you conduct such research. One way to systematically conduct such research is by using a rubric, which is a list of predetermined variables or objects that you will count when doing your systematic observation. If you wanted to study how students were using computers in a computer lab on campus, you might classify computer use and create a rubric with items such as writing, reading, watching videos, gaming, and email. When you conduct your study, you would just walk around with your rubric and mark off what the various students were doing. Systematic observation usually leads to descriptive data, but it can be used in experimental and inferential research as well. For example, one common type of systematic observation is sports statistics. In baseball, what counts towards a batting average is based on a rubric of hits divided by at bats. Note that walks and strikeouts count the same negatively, and singles and home runs count the same positively. You can later take this data and make statistical predictions or inferences about how well a team or player will perform in a particular situation, and in fact, sports videogames are based on computations of these inferential statistics.

Each of the methods we just described consists of two parts: a protocol and a research instrument. A **protocol** is a series of systematic steps that must be followed to test and gather results. What's important is that the protocol needs to be determined BEFORE you begin the study. Many times, you will even write the protocol steps in the methods section of your research report, explaining how you conducted your study. We discuss this step at length in the section "How Do You Write About Quantitative Research?

The **research instrument** is the mechanism for recording data. When writing, you would refer to a questionnaire, a systematic observation rubric, or a scale as a research instrument. Each method has associated with it a particular instrument or collection of instruments, so we will discuss further the specifics of each method, specifically creating a quantitative instrument that you can use to record quantitative data.

How Do You Design a Questionnaire?

When creating a questionnaire instrument, you want to design your questions first to generate data from your participants that will help you answer your research question. Oftentimes, a questionnaire is used with a descriptive design, and thus, a hypothesis isn't that important because predicting the results doesn't change what the data reveals. For example, if you were

asking participants who they were voting for in an upcoming election, hypothesizing that one candidate will win over another doesn't add to the argument. Nevertheless, if you are dealing with multiple variables, such as whether gender or age influences candidate selection, then a hypothesis is necessary. There are four stages of creating a good questionnaire: question creation, question wording, visual design, and study conduct.

Creating Questions

- *Questions should be connected to your hypothesis or research question* – Ideally, you are attempting to respond to a hypothesis or a research question. Your questions should provide data so that you can answer that research question. You don't want to flat-out ask your study participants your research question, though. Even if there is no way around directly asking your participants the research question, you want to hide it with other questions. The reason for the subterfuge is that many studies have shown phenomena called demand effects. This is a fancy way of saying that people who fill out questionnaires will often try to answer with what they think the person asking wants to hear. If there is only one question, people will "guess" the answer based on the context rather than give an honest response. In fact, some studies have even shown a pressure-to-answer effect, which means that even if given fake options or questions, people will answer them because they think they are supposed to.

- *Select either open or closed questions where appropriate* – An open question is a short answer, write-in response that allows the participant to answer in any way he or she sees fit. A closed question provides a predetermined, multiple-choice, set of options. Either can be used in a questionnaire design, but if you are doing quantitative research, you will have to code all of the open questions using nominal numbers (except those open questions that are numbers to begin with such as age, hourly wage, etc.). Open questions that are a number should be left open because these numbers will offer more precise data. For example, if you asked a participant about how much they made an hour, and offered the options, $6, $7, or $8, you would leave out some important options—it would have been easier just to ask as an open question, "how much do you make an hour at your job?" When creating closed questions to put on a questionnaire, you should try to create a pattern so that multiple questions share similar response options so the participant can easily follow the pattern.

- *Ask questions that will give you data that you can use* – Quantitative research relies on quantifying responses to a predetermined set of questions. If you ask a lot of open questions, then you will be more likely to get a varied response so that you won't have anything that is comparable for your final study. Ordinal and interval data is much better than nominal data when conducting quantitative research. Thus, you should rely on using a Likert-type scale for many questions about attitudes and beliefs. Likert-type scales work by providing a statement, usually a "positive" attitude (e.g. "chocolate is delicious") and having participants indicate whether they strongly agree (5) or strongly

disagree (1) with the statement. See the section **What is a Likert Scale?** for more information).

- *Limit the number of questions you ask your participants* – The rule for most simple surveys is that 10 questions are about the limit. After ten questions (or about 2 minutes) people get anxious and suspicious of what you might do with all this information. Additionally, limit the responses offered. People don't like complex grids reflecting "if…then" or "either/or" probabilities, so avoid them in your survey unless it is appropriate. If you are asking for short answers or "other" responses, then be very clear as to what you are asking. Ideally, for all surveys, three to five major questions—major questions don't include demographic questions—can make for a useful survey.

- *Ask more than you think you'll need (if possible)* – While you may just care initially whether people prefer A or B, adding demographic (i.e. gender, age, location) questions will reveal some interesting differences that you may have not thought of. For example, asking whether people prefer Coke or Pepsi might generate a simple percentage split (50/50). However, if each of your surveys has data such as college major, age, gender, vehicle owned, you can come up with some rather interesting relationships (i.e. 80% of the people surveyed who like Pepsi were women who drive Hondas). Not only will this give you more to write about, it will show you are aware of potential correlating variables.

Wording Questions and Options

- *Keep it simple* – The questions you ask should be very simple and unambiguous. Avoid confusing sentence constructions and double negatives. Use a level of vocabulary that is appropriate for your audience. You don't want to talk down to your participants, but the intention is that you want the participant to be able to answer the survey without having to ask you for clarification of a question. For example, imagine you wanted to ask a question about study habits on a survey. If you asked, "Is there not a day when you don't study?" the participant may not understand directly what you are asking.

- *Keep it clear* – Even people from the same background will interpret words differently. In particular, adverbs showing possibility or potential (e.g. would, could, maybe) have different interpretations. Avoid using them in questions, and let the answer options provide the participant with a way to indicate their potential or possible agreement/disagreement with a question. For example, if you asked, "Do you usually wash your hands before cooking?" the "usually" could mean once every two meals or five times every ten meals. It would be better to ask a clear question, "How often do you wash your hands before cooking?" and then provide the potential or possibility in the answer options (i.e. "Always, often, sometimes, never"). These ordinal responses still are not very precise, but as a researcher, you can count the responses more reliably. The reason that the washing hands question might not work as an open-ended, write-in-

the-number response is because most people don't keep track of how many times they specifically wash their hands. The best you can hope for is an approximation.

- *Don't give away your biases* – When wording your questions, you want to hide any research biases you have so that participants can answer based on what they want to tell you and not what they think you want to hear. Consider the previous hand washing question in the last point. If you were to ask the question as, "How often do you handle food with filthy, unsanitary hands?" you are guiding your audience to respond in a particular way. Remember the demand effects described earlier? A research participant will try and figure out what you want if you don't word your question as neutrally as possible. Sometimes these biases are difficult to track down, so it helps to peer review or test your questionnaire with a small group to get feedback on questions that you may not notice are revealing some of your research biases. Consider a survey that asks 5 questions specifically about Apple's iPhone, but also has a question that asks who makes the best smartphone–Apple, Samsung, HTC, or LG. The bias here is for Apple's iPhone even if you don't recognize it at first.

- *Recognize freedom of response* – Freedom of response means that the participant is able to answer a question appropriately, truthfully, and to the best of his or her knowledge. Do not word a question in such a way that the participant cannot answer. For example, consider the following question: "When did you stop cheating on exams?" The participant has to either answer that he or she still cheats, or used to cheat regularly in the past. There is no freedom of response for a participant who has never cheated. Binary questions, questions in which there are only two options, are often susceptible to a lack of freedom of response. Think about questions of race and ethnicity, and look at the following question:
Q1. What is your race? (please select one)
    O Asian
    O Black
    O Latino
    O White
Because there are four options, you might not immediately see the problem. As you may notice on closer examination, responding to any race category is a binary decision, either Y(1) or N(0), and by selecting one, according to the question, you are not allowed to answer another. In fact, this very issue came up in the United States census in 1997, and it was changed to allow people freedom of response—to select multiple categories. Furthermore, many social and political arguments have freedom of response problems. Consider questions of pro-life and pro-choice. If a question asks, "are you pro-life?" how would you answer this? The "no" response means that you are "anti-life" just as a "no" response to "pro-choice" is "anti-choice."

Always keep in mind that your survey data will only be as good as the questions you are asking.

Visual Design

- *Begin with instructions and IRB information* – Every survey should begin with instructions for completing the survey and IRB information that tells the participant how the information will be used. Your professor and IRB guidelines will require certain information be included in the introduction to your survey, but usually it will consist of a sentence stating what the survey is for, that the information will be anonymous, and that participation is voluntary. For example, this might be a typical survey introduction:

  > Please answer the questions of the following survey by circling your response. By completing this survey, you are granting consent for this information to be used in a class project I am doing on college eating habits. Your responses will be anonymous, and your participation is completely voluntary.

  As always, talk with your professor before writing the introduction to your survey.

- *Order your questions appropriately* – Always start with simple questions. These early questions should ask demographic information that people can easily answer (e.g. college major, gender, age) followed by more complex questions later. The final questions on your survey should be reserved for more personal information (e.g. salary).

- *Order your answer options appropriately* – Within each question, options to respond should be ordered appropriately. There are **serial effects** with regard to positive and negative response options and the number of response options. In the Western world, people tend to consider lower numbers on the left as a negative response, higher numbers on the right, as a positive response. As a general rule, however, the most important thing is to be consistent. Do not change your scale in the middle of a questionnaire unless you provide additional instructions for how to read the new scale.

- *Design a survey to be easy to use* – Make sure the font is easy to read, there is enough space to write in short answers or circle a response, and that questions are clearly separated.

For some types of surveys, you might consider using an online survey tool. For example, Surveymonkey (http://www.surveymonkey.com/) will allow you to set up a free survey (no more than ten questions) to be administered online, and it will tabulate your responses when you are ready (although, you often have to pay to see your raw data). Other websites such as Google Forms allow for quick survey design and easy to access data.

What is a Likert Scale?

The Likert scale is often used in social sciences and with questionnaires that ask people about attitudes, beliefs, and self-reported behaviors. Likert scales allow a participant to select a pre-determined response to a question that is easy for the researcher to quantify the degree of agreement, frequency or preference:

Agreement
Always disagree / sometimes disagree / neither agree nor disagree / sometimes agree / always agree

Frequency
Never / Occasionally / Often / Always / Don't Know

Preference
Highly dislike / dislike / neither dislike nor like / Like / Highly like / Don't Know

The true Likert scale is a 5 item scale, but scales of any size can be used. The typical Likert scale looks something like the following:
Q1. Chocolate is delicious
1. Strongly Disagree
2. Disagree
3. Neither agree/disagree
4. Agree
5. Strongly Agree

When computing a general attitude or response from a Likert scale, you can combine two options—after all, strongly agree and agree are both measures of agreement. In the chocolate example, even if 15% of the people said they "strongly agreed" and 63% said they "agree," you could write in the final report, "in a survey of college students, 78% responded that chocolate was delicious."

Likert scales are particularly effective because the ratings can be manipulated using measures of central tendency to reveal a general attitude or belief about a topic. What you do is assign an ordinal number to each degree once you have your responses. For example, for Frequency, you would assign a 1 to Never, a 2 to Occasionally, a 3 to Often, and a 4 to Always. You then can compute the average for your group of participants by adding them altogether and dividing by the number of participants. Let's imagine the following three questions on a questionnaire:
How often do you ride public transportation to school? (never-sometimes-always)
How often do you drive your own car to school? (never-sometimes-always)
How often do you ride with somebody else to school? (never-sometimes-always)
After computing averages for each question, this is translated in the final report to the following useful piece of information:

In a group of college students surveyed on how they got to school, participants indicated that they were more likely to drive their own cars (M = 2.3) than to ride with somebody else (M = 0.65) or use public transportation (M = .97).

In using a Likert scale, there are concerns about freedom of response (i.e., allowing participants to add an outlier). For example, in our transportation questionnaire, there is no walking or biking option. There is some debate as to whether a mid-point (3. Neither agree/disagree) is useful or not. On one hand, if a participant is tired or in a hurry, they might just select the mid-point to be done with the survey and not have to think about it. On the other, it gives participants an option if they aren't familiar with a particular question or option. Many times, your context will determine when or how to use a mid-point question.

You will also note that some Likert scales use a "Don't Know" or "Not Applicable" option. This might be useful to exclude data about a topic that a participant might not have had any experience with. For example, being indifferent to a feature on a smartphone is different than a survey participant who doesn't have a smartphone and doesn't really know. Whether to include a "Don't know" response will depend on the question and research you are conducting.

Discussion and Practice

1. Design a brief survey using a Likert scale to measure people's attitudes and beliefs.
   a. Take, for example, a survey on how students rate the food on your campus. Remember that a good Likert-type scale provides some freedom of response (i.e. "don't know") for certain questions that a participant may not have had experience with. Also, a good survey using a Likert scale is layered so that you are asking about comparable elements. Think of 3 or 4 questions that ask about price, quality, or availability, all on a Likert-type scale.
   b. Once you have your brief survey, either one survey for the entire class or a few surveys, have each member of the class take the survey. Based on your experiences writing and taking such a survey, what are the disadvantages and advantages of Likert-type scales?
   c. You might further develop this activity into a class-wide project in which each student is responsible for handing out a certain number of surveys that you have developed as a group. You can later use this data in writing your own report.

How do you Conduct a Survey?

Many surveys can be administered online. Selecting a location to post a link to your survey is important. If you are an outsider to an online community, you might be ignored. If you are a well-known participant in an online community, it might negatively impact your results. It's best

to sound professional and impartial no matter whether you are posting it to your Facebook friends or to an online forum such as Reddit.

If conducting a survey in person, remember to be cordial and professional. Dress like you want to be taken serious. When participants are filling out the survey, don't hover over them. When a participant hands you a response, place it in a folder or underneath the stack so that you assure him or her the response will be kept private. Also, be sure you aren't a variable that affects the participant's behavior (e.g. don't yell, "Hey you, I hate my job, how about you?").

After you are done collecting your survey responses, you should tabulate the data. You should also write down environmental factors such as location of your survey, time of day, weather, and any other external details you think might be relevant. If in reading the surveys, you find a few that are not completely filled out, you can still use the data that is there, as long as you report it in your final report (e.g. "of the 27 subjects surveyed, 21 responded that they liked Facebook, 3 responded that they hated it, 2 were undecided, and 1 failed to respond").

Surveying Ethically
A questionnaire might seem like it doesn't produce stress or create harm to the person filling it out, but in fact, you can rarely know for sure. The best precautions you can take are to inform the person taking the survey beforehand of how the information is going to be used, that their answers are anonymous, and that they should not feel obligated to answer every question. As we discussed in the section on visual design of the survey, you should *begin* the questionnaire by informing your participant of these three major concerns.

If participants refuse to answer a question or even take your survey, then be cordial and respect their wishes. If you realize only after compiling your data that a question wasn't answered, then you can leave that participant's response out of your final data. Similarly, if you find in your analysis peculiar responses or extreme outliers on the questionnaire, you can leave those out as well. In both cases, you should discuss these problems in your discussion section so that your audience is aware of these issues.

Discussion and Practice
1. Create a questionnaire using closed questions, which gives results that can be counted. Consider the following research question: what is the relationship between GPA and favorite type of music?
    a. Create a questionnaire that asks students their GPA and their favorite type of music. Make sure to include clear categories for the different types of music, including a few sample bands as examples on your questionnaire to make the categories of music as clear as possible for your participants.
    b. What other relevant questions might help you create this survey? Type of high school they went to? Whether they are musicians or not? Think of some different questions that may help you get more out of your survey than a

simple 2 or 3-question survey. You might even think about some Likert-type questions

c. Peer review the survey with your class. Consider these options:
- Is it simple and easy to follow?
- Are any of the questions biased or assume knowledge of the participants?
- Do the questions allow freedom of response?
  Is the visual design professional? Are instructions and IRB information provided at the top?

d. Once you get feedback, work on revising your questionnaire to be administered to students as per your IRB requirements on campus.

2. Every ten years, the United States government administers a census of the entire population. In addition, every year a smaller sample of citizens answers additional questions, currently called the American Community Survey. The rhetorical purpose is to provide the government information about the ethnic, gender, and age of the population in given areas for purposes of voting and funding of local and government programs. Consider the following two questions and design from the American Community Survey in Figure 8.1 below. These rhetorical purpose of these specific questions are as follows:

- Employment – Information about industry, occupation, and class of worker is important for creating jobs as companies use these data to decide where to locate new plants, stores, or offices. Agencies use this data to plan job-training programs for seniors. Federal agencies use this data in litigation where employment discrimination is alleged.

- Social Services – Data is used to estimate the demand for staff in health care occupations and their geographic distribution based on these data. (U.S. Department of Commerce, 2010, p. 34)

1) Based on this purpose, what are the benefits and drawbacks of these two specific questions?

2) Would you change anything in the design or wording of these two questions?

Figure 8.1 American Community Survey questions

How Do You Conduct a Systematic Observation?

Systematic observation is a type of observational research in which researchers are following a particular protocol or system for measuring a phenomenon. Although researchers doing qualitative research (see Chapter 7) are often doing observational study, their motivation is in collecting data with an open mind, to be analyzed later. Qualitative research is often reactive, in that the researcher is waiting for something to happen before categorizing it. Systematic quantitative observation, on the other hand, requires a list of pre-determined items that are to be found before the research site is observed. Although systematic observation can be conducted in qualitative studies, the nature of quantitative research makes pre-established criteria for observing behavior more appropriate. These criteria are often written as a rubric, or a pre-determined list or categories of behaviors. What follows are further details for developing a systematic observation protocol.

Conducting a pilot study

In conducting a systematic observation, you will probably want to conduct a pilot study first. A pilot study is a short or small study that you can conduct before a larger study to give you a sense of what to look for in that larger study. The way you do research in the larger study doesn't have to be the same as the pilot study. The pilot study is mainly for your own purposes—the data from such pilot studies is not meant to be seen by an outside audience. If using a systematic observation method, you will want to determine your criteria or list of phenomena before you do your actual study. If you don't have a good sense of what you are categorizing or no previous study has been done on the topic, then the best approach is to do a pilot study using a qualitative approach (see Chapter 7). You would list as many items or instances of a phenomena in a small scale study (maybe 10% of what you intend to eventually study), then categorize them for your rubric. Pilot studies should be described in your method section to indicate how you came up with your categories, but you wouldn't necessarily list the data from these small studies. Mentioning your pilot study only lets your audience know your reasons for focusing on your final criteria or categories.

Creating a rubric

As we have indicated, a rubric is a pre-determined list of behaviors, phenomena, or items. As a researcher, you will observe behaviors and indicate on the rubric whether a particular behavior is observed. See figures 8.2 and 8.3 for an example of two different rubrics looking at how people use library space. The rubric in figure 8.2 is better at capturing aggregate data, and the rubric in figure 8.3 is better at capturing raw data. You probably have noticed from these sample rubrics that one of the guiding principles is efficiency. If you are observing something, you want to spend the majority of time actually observing and not flipping through pages, reading, or filling out a rubric. Leave yourself plenty of room to indicate a number; in some instances, having predetermined numbers makes it easy to complete. Also, leave space to write in issues that your pilot study did not find. Having an "other" category with a line to write in information that you observe is useful. Although a systematic observation rubric is designed

around quantitative research, not everything that appears on the rubric has to be a number. Letters and codes can later be used as nominal data and computed as if they were quantitative data. For example, in the case of a rubric, you might list a person's sex as M, F, or Cannot be Determined (CBD) as in figure 8.3.

Doing the observation

While doing observations, you should be aware of two important concerns. The first is what is called the Hawthorne effect. The Hawthorne effect says that people will act differently if they know they are being watched. In other words, if you are standing over somebody with a clipboard, marking down some mysterious code every time they do something, they will act differently than if you weren't there. The second related issue is one of ethical research behavior. Hiding in the bushes outside somebody's dorm while observing is more apt to get you hauled off to jail than to provide good observational data. The rule, then, is to hide in plain sight. Pretend you are doing something else while doing your observation. This might involve having your rubric in a notebook or on your laptop as you observe. It might involve walking around, counting in your head two or three observations, then stopping to write them down when nobody is looking.

Of course, we have focused much of our attention to the systematic observation of human behavior. The major rule for all observations is that you want to focus on the phenomena and minimize distractions. Whether you are in a lab or observing a natural setting, you want to turn off your cellphone and iPod. You want to try and forget your personal stresses and just try and focus on the observation at hand. For more information on how to conduct observational research, refer to the chapter on qualitative research.

Observing Ethically

Because you often do not interact with others while observing, it is not usually necessary to inform participants of your observation or get their consent. The only exception to this is if you intend to record your observations using video or audio; then, you do need to obtain your research participants' consent. You should never secretly record an observation using video or audio. However, even if you are not recording, still check with your school's IRB before you conduct any observational research, especially if you intend to fully interact with the people you are observing. Remember, you want to hide in plain sight when doing observations.

Discussion and Practice

1. Design and conduct a systematic observation consisting of counting occurrences; this differs from qualitative research because it simply consists of counting without description. Imagine you wanted to research the types of drinks certain people order at a local coffee shop.
   a. Begin by thinking about your assumptions of who orders what type of drink at a coffee shop. Do women order smaller drinks than men? Do older people order more complicated drinks than younger people? Briefly create a rubric

similar to the library ones in figures 1 or 2. Think broadly about the many options available at a coffee shop. How many people order plain coffee? How many people order cappuccinos? How many people order lattes? How many people order frozen mochas? How many people order espresso? How many people order other types of drinks such as soda or juice? You can also create other categories for your drinks. What time of day does any of this occur?

b. Visit the most popular coffee shop near campus and count how many people order certain types of drinks based on what you have determined is important on your rubric. Remember, hide in plain sight. Don't hover around the counter and don't stand there with a clipboard.

c. Once you have your data, write a brief paragraph about this data for two audiences: 1) the coffee shop owners or marketers (depending on if it is a locally owned establishment or a large chain), 2) researchers or professors who are interested in studying the cultural phenomena of coffee shop ordering.

Library Observation Rubric

Date: _____   Time: _____

Non-Computer Use

_____   Reading/studying

_____   Socializing

_____   Writing

_____   Other

_____

_____

Computer Use

Laptop Computer	Activity	Library Computer
	Email	
	Social Networking (Facebook, Twitter)	
	Watching Videos	
	Reading webpage/articles	
	Playing games	
	Writing/word processing	
	Using Library catalog/website	
	Instant Messaging	
	Other	

Figure 8.2 Library observation rubric for systematic observation, aggregate data

Library Observation Rubric

Date: _____ Time: _____

S: M / F / CBD **NC:** R S W **C:** E SN V R G W L IM O:
_____

S: M / F / CBD **NC:** R S W **C:** E SN V R G W L IM O:
_____

S: M / F / CBD **NC:** R S W **C:** E SN V R G W L IM O:
_____

S: M / F / CBD **NC:** R S W **C:** E SN V R G W L IM O:
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S: M / F / CBD **NC:** R S W **C:** E SN V R G W L IM O:
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S: M / F / CBD **NC:** R S W **C:** E SN V R G W L IM O:
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S: M / F / CBD **NC:** R S W **C:** E SN V R G W L IM O:
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S: M / F / CBD **NC:** R S W **C:** E SN V R G W L IM O:
_____

S: M / F / CBD **NC:** R S W **C:** E SN V R G W L IM O:
_____

Codebook

S = Sex	M = male, F = female, CDB = cannot be determined
NC = Non-computer use	R = reading, S = socializing, W = writing
C = Computer use	E = email, SN = social networking, V =watching videos, R = Reading, G = gaming, W = writing, L = Library catalog/database, IM = instant messaging.
O = Other	[open-ended]

Figure 8.3. Library observation rubric for collecting raw data through systematic observation, with codebook.

How Do You Conduct a Test?

Testing is a method for studying how introducing one variable influences another variable. It is a method common to quasi-experimental, experimental, and inferential studies.

Some testing protocols involve the use of other methods as well, such as a questionnaire given before and then after an event, or systematic observation of both a control group and a test group. What separates testing as a method from the other two is that it is a protocol for studying difference. For our purposes, we will focus on doing testing of human behaviors and not bacteria, sequoias, or heavy metals. Although the concerns are the same for all testing protocols, we want this textbook to be practical for you and your writing class, and human behavior is plentiful and easy to come by.

Most testing methods actually follow closely the composing strategies we will describe later, specifically beginning with a research question and a hypothesis. We will cover some further specific concerns of testing protocols here.

Determining your participants/sample
Because testing is used to study difference, your protocol will have to take into consideration the selection of two groups or conditions. A before/after protocol has participants measured before the introduction of a variable introduced by the researcher, followed by another measurement after. In a control/treatment protocol, one participant group (**the control**) is measured while another group (**the treatment**) is exposed to a variable introduced by the researcher and then measured. The reason that determining your participants is an important first step of the protocol is because you have a number of potentially confounding variables here. In the before/after group, you cannot be sure that the participants have ever been exposed to the introduced variable. In the control/test groups, you cannot be sure that the groups are comparable. To minimize confounding variables, you have to be systematic in making your groups as equal as possible. Because you are studying difference, pre-research differences are far more important to understand. For these reasons, in protocol design, you should strive for random sampling and descriptive data.

> Random sampling means that every attempt has been made to select participants who are representative of a population. Refer to the Sampling section for more about sampling.

> Descriptive data, often gained from an additional descriptive measure, allows you to collect information that may or may not influence your test results. This usually involves a questionnaire before or after a test protocol to learn about your participants. For example, if you were doing a test to see whether people's attitudes and beliefs changed after reading or watching a particular news story, you might need to ask them first whether they have heard of the news story to begin with (you could ask it after the test as well, or even as part of the test).

Designing your intervention
Testing involves looking for difference after you, the researcher, have intervened, so the next step is in designing this intervention. An intervention can be almost anything. You might measure people's attitudes and beliefs about some phenomenon before and after you inform them about that phenomenon. You might drop your books in front of two different groups of people to see if either group helps you. There are two types of intervention test situations. The first intervention test is **control/test**. In this case, you would intervene with one group of participants but not with the other group, which would be the control group. The second intervention test is the **before/after test**. In a before/after test, you would test the participant group before the intervention and then again after the intervention. For instance, the intervention could be the use of certain lecture techniques to present information on global warming. In before/after conditions as well as control/test conditions, you want to make sure the questionnaire you use to ask questions about people's attitudes toward global warming is the same for both groups. For example, in a before/after condition, participants should be given the same questionnaire testing their attitudes toward global warming before and after the lecture. In control/test conditions, the control group who did not hear the lecture on global warming should be given the same questionnaire as the group who did.

You need to carefully plan how and when you will carry out your intervention test. When designing other types of interventions, you want to make sure they are the same and the external conditions are as similar as possible. For example, if you wanted to compare people's attitudes and beliefs about news stories, one on Fox News, another on CNN, and another on MSNBC, you would have to make sure that they were all presented to participants on the same day in case further information about the story was revealed later.

Designing procedures for data collection and analysis
The last step of your research protocol is designing the procedure for data collection and analysis. Data collection can come in the form of either a written questionnaire or some other form that a participant fills out, or as a systematic observation that you are completing. We have already discussed in detail questionnaire and systematic observation design, so refer to either for specific help. In either case, because you are looking at quantitative measures of difference, your data analysis should focus on these differences and what will constitute a significant difference. In statistics, there are three common tests for determining whether a significant difference between two measurements exists, depending on the number and type of variables tested: Student's t-test, ANOVA, and chi-square. If you are only doing a descriptive study, such measures aren't really necessary because a difference of 1 or 2 on a Likert scale is enough to make an argument for some writing situations. That being said, your audience will be more likely to find more precise measurements more credible, and statistical analysis of difference is a far more precise measure than just saying that 1 is smaller than 2. As such, these statistical tests of difference should always be used when doing inferential data analysis and if the writing situation demands it. A statistics textbook or the Internet can provide you with more information on these measures.

Testing Ethically
Another important concern in test design is being aware of research ethics. You should respect participants' rights and personal well-being in any research endeavor, but especially in testing protocols. You never want to put them in danger, either emotionally or physically.

Your first concern is that you are not creating a situation that might lead to harm to the participants' social, mental, or physical well-being. That means you should not place people in awkward social situations that would have them conduct themselves in ways that they normally wouldn't. You should also not ask them to do anything that they are uncomfortable with.

Most testing situations require additional IRB approval, so you should research any requirements before designing or conducting such research. In any case, you should always inform your participants about how the data you collect will be used, that their identities will be kept confidential, and that they can refuse to participate at any time during the study.

Method	Design		
	Descriptive	Experimental	Inferential
Questionnaire	- Census - Attitudes and beliefs about a topic - Self-reported behaviors	- Data collection to normalize or randomize participant selection	- Correlation/Causation between attitudes and beliefs and self-reported behaviors
Systematic Observation	- Observed behaviors	- Observed behaviors with researcher intervention	- Correlation/Causation between self-reported and actual observed behaviors
Testing	- One-time exams - Personality, Intelligence tests	- Pre-test/Post-test comparisons - Control/Test comparisons	- Meta-analyses - Correlation/Causation between one variable and another

Table 10.1. Common uses of designs and methods

Discussion and Practice

1. In a semester or quarter long class in school, you often don't have the resources or time to conduct certain types of study designs and methods. Consider the following research questions and answer the following:
   a. What quantitative design and method might you be able to do as a student in a couple week's time?
   b. What quantitative design and method might a professor or business want to use given that they have more time and resources?
      - Do college students have greater self-esteem than in previous generations?
      - Are there demographic (age, gender, education, etc.) trends to who buys concessions at movie theaters?
      - What sports are most popular among college students?

- Do clothing or style of dress affect whether you are hired by a company or not?
- How often do students text, Snapchat, or Facebook during class?
- Can small businesses provide health care for their employees?
- What is the most efficient menu design for a particular computer application?
- Do students learn more in small classes or large classes?
- What type of fertilizers work best for growing indoor house plants?

2. Designs and methods depend a great deal on the rhetorical and research situation. For collecting quantitative data, what are the major advantages and disadvantages for each of these methods?
   a. Online questionnaire or survey
   b. In-person questionnaire or survey
   c. Systematic observation
   d. Testing

What Do You Do with Quantitative Data Once You Collect it?

As we have indicated previously, raw data provides the most options for analysis, but you cannot just present plain, raw data for an audience because they would be overwhelmed. Instead, you will have to manipulate the numbers in some way to make an argument. The end step before writing out your results in quantitative research is the use of numbers in your data as evidence in an argument. How you manipulate those numbers is very important in quantitative research. You probably recognize this if you have taken a statistics course or have studied statistics in your math courses. Ultimately, your study design and method will place some limits on what is possible with your raw data, but generally speaking, you don't have to be a math major or have a great deal of experience with statistics to use numbers to make an argument. For our purposes, we are going to use some tools to help us compute basic descriptive and inferential statistics for your research so that you don't have to worry too much about the formulae.

What Are Some Tools You Can Use?

Although it can be helpful to learn the written formulae for computing statistics because it gives you a better understanding of what these formulae are doing, most scholars use software to do statistical analysis because of its ease of use and precision. The most popular piece of software is SPSS. If you are a student, you can get SPSS for under $100, but the tool usually runs over $600. A much easier solution is to use Microsoft Excel or the freely available Open Office Calc. All formulae here are the same in both Excel and Calc, so use what tool you have available to you. Everything inside the brackets is typed into an empty cell in the program, with the range selected with the mouse or cursor keys.

What Are Descriptive Statistics?

As the name implies, descriptive statistics describe what was found in this one instance on this one day. People are generally consistent, but without more advanced statistical measures, in any descriptive study, you can only refer to the numbers collected in the past. Questionnaires and surveys are useful descriptive methods since they provide a reasonable collection of what those surveyed were asked about. However, such an argument often relies on aggregates of those surveys and not each individual survey. In descriptive studies, the most common manipulation of raw data into aggregates is through what are called measures of central tendency. They provide averages and variations from the average of a given collection of data.

How Do You Compute Measures of Central Tendency?

Measures of central tendency give you a sense of where the middle of a set of data is. As we described earlier, there are different definitions of middle.

Mean (M) is the arithmetic average of items or values [=AVERAGE(range)]
Mode is the most frequently occurring item or value [=MODE(range)]
Median is the item or value of which 50% are greater and 50% are less
[=MEDIAN(range)]

Which statistical measure you pick is based a great deal on your research question and what you are trying to discover for your audience and purpose.

Standard Deviation (SD) is a measure of the spread of items or values in a series, or the spread of how close responses were to the mean. Understanding the variation can help you see how close a particular item or value is to other numbers [=STDEV(range)]

The combination of mean and standard deviation tell you a lot about the numbers, but sometimes computing the mode and median is helpful too. Let's look at two datasets, one for number of hours a person played games during the week, and the other for how many hours that person worked during the week:

1. Number of hours participant played games this week:
8, 0, 0, 3, 2, 10, 0
Mean = 3.29, Mode = 0, Median = 2, SD = 4.11
2. Number of hours participant worked this week:
8, 8, 8, 8, 6, 6, 5
Mean = 7, Mode = 8, Median = 8, SD = 1.29

As you can see, the variation in the first set (*SD* = 4.11) helps us read the mean (*M* = 3.29) differently than we would otherwise. It explains that although, on average, the participant played games a little over 3 hours a day, this fluctuated a great deal (over 4 hours). In the second dataset, the average of 7 hours a day is less varied (only 1.29 hours), so that we might imagine that the 7 hours indicated was a more common occurrence each day of the week.

Ratio and interval data and certain ordinal evidence can be computed using measures of central tendency. Things like GPA or time can be used as a measure, but also Likert scale measures are commonly computed by their M and SD. If you have nominal data or even qualitative data, you

can also count how many of each instance by using a feature called COUNTIF [=COUNTIF(range,"value")]. Say you have 100 participants, and you have their gender listed. You want to count how many males and how many females. In an empty cell, you would write =COUNTIF(A1:A100, "male"). This will count every cell looking for the word "male" and then give you a total. COUNTIF also can find one or more words in a sentence.

What Are Inferential Statistics and How Do You Compute Them?

Inferential statistics "infer" (i.e. conclude) relationships between a sample and a population, or "infer" past, present or future results of a sample/population based on the data. Rarely is Excel or Calc used in more advanced research to perform inferential statistics, although this software can perform those calculations. In academic and professional settings, SPSS/PASW is more commonly used.

How Do You Write about Statistics in Your Report?

Most academic writing styles use similar codes for referring to statistics. Although you should consult APA or MLA style manuals when writing a document for publication, the more common abbreviations follow:

Population = *N*
Sub-population = *n*
Standard Deviation = *SD*
Mean = *M*

Statistics are often written in parentheses after an item that the statistic refers to. The abbreviation should be italicized, and symbols and numbers should be separated by a space, but not italicized. In the first example from a student paper, the *M* here is referring to the mean of a Likert scale response to a question.

> In a survey of college students, participants (*N* = 100) responded that money was more important (*M* = 4.2, *SD* = .9) than experience (*M* = 3.5, *SD* = .76) in selecting a summer job.

In this second example, the data is from an article about computer game addiction in the *Journal of Computer-Mediated Communication*:

> Female players play slightly more hours per week than male players (Females *M* = 29.31 hours per week; Males *M* = 25.03) (Williams, Yee, & Caplan, 2008)

Discussion and Practice

Consider a survey of 20 students that collected the following information—gender, GPA, and hours per week engaged in the following activities: reading for fun, reading for school, writing for fun, writing for school. Consult table 8.2 for the raw data.

Gender	GPA	Read/Fun	Read/School	Write/Fun	Write/School
male	2.5	2	2	0	1
male	3.4	3	6	3	5
male	3	4	5	2	3
male	2.7	3	2	1	2
male	2.8	2	3	1	5
male	3.4	2	6	6	7
male	3.1	1	5	2	4
male	2.9	2	6	1	6
male	2.2	0	2	1	5
male	3	2	5	3	4
female	3	2	10	5	4
female	4	4	25	5	20
female	3.4	3	14	4	5
female	3.7	4	21	6	10
female	3.6	2	20	5	8
female	3.3	3	10	3	4
female	3.9	5	13	9	8
female	3.8	10	15	5	8
female	3.1	5	14	8	7
female	2	3	10	3	4

Table 8.2 Raw data for a short survey on reading/writing for school or fun.

1. Create a quantitative research question around this data.
2. Compute measures of central tendency, including standard deviation. Include any other statistical measures needed to answer your research question.
3. What audiences might be interested in this data?
   a. List at least five.
   b. Select two of those audiences to write a short paragraph about one or two findings in a style appropriate for that audience. For example, if writing for researchers, you will have to use the codes for M and SD, but if writing for a newspaper, you will need to explain the data differently. There are many potential arguments here. As a hint, consider separating the data by gender or GPA, or possibly looking at trends in GPA and reading for fun.

How Do You Write about Quantitative Research?

Conducting research is quite fun and interesting, but the point of doing research is to share it with an audience. We have discussed a number of different research methods and ways of collecting data, but ultimately, you need to focus your methods and design toward a particular

rhetorical research goal. What follows are the steps for completing and presenting a written quantitative research project.

How Do You Develop a Quantitative Research Question?

Simply put, for research to be appropriate for quantitative study, it has to have a research question that is quantifiable or that can be answered through an analysis of numbers. Ultimately, what will decide what research design you use is based on your research question, but some designs are better at asking some questions than others. For a descriptive study, you would want to ask a research question about how many, how often, if X exists (this is a binary question), or what is X. For experimental studies, you would ask a question such as, "does the introduction of X affect Y?" For inferential studies, you want to ask questions about correlation or causation. "Does X lead to Y, are X and Y related, and what influences X to exist?" are all inferential questions.

When formulating quantitative research questions, you might also consider how multiple research questions might be used to respond to the same phenomena. Whereas in qualitative and text-based research, you might use a number of sources and types of evidence to respond to a research question, your overall research question is designed so that these multiple sources can inform it. However, in quantitative research, questions that are looking for prediction or relationship require inferential methods whereas questions that ask whether a phenomenon exists are descriptive. Therefore, you might have to create two or more research questions. For example, answering a descriptive research question requires different methods than answering an experimental research question. Imagine you wanted to look at what influenced college students to buy a cell phone (what influences X to buy Y). This is an inferential research question. However, if you don't have the data on college cell phone purchasing habits to begin with, you have to answer that question first. Thus, you would have two different research questions: what are cell phone purchasing habits for college students and what influences their decision to buy them? Let's say you wanted to know if students' employment had an influence on their GPA. You would have to craft both descriptive and inferential research questions: what are the employment habits of students? And, do employment habits affect student GPAs? You will often see in larger studies multiple research questions that follow this line of reasoning.

The second thing to consider in coming up with a research question or questions is that you want a question that will provide new insights or a new argument. You may have heard about studies that look at really obvious things: that mothers of twins get less sleep than mothers who have only one child or that businesses present merchandise in appealing ways to encourage sales. In some ways, it is nice to get a definitive answer to some of these questions, but generally speaking, given that research takes a lot of time, and in many cases, a lot of money, you want to ask a question that is less obvious. For example, you might be interested in surveying college students about exams. A research question that wouldn't be interesting is asking whether students like exams or not. You could probably guess the answer to that. What

would be a better research question about exams that would help both students and professors better understand student attitudes toward exams? Some better questions might be answered through a descriptive design that asked about preferences for when or how often exams are given or an inferential design that asked about study habits and exams. This doesn't mean you shouldn't consider questions or observations that address simpler issues; it just means that your research question should not be solely focused on a commonsense issue. Thinking back to the exam research question we just talked about, you might have questions about liking/disliking exams on a questionnaire or survey, but they wouldn't be the only question.

Whether you are coming up with a descriptive, experimental, or inferential research question, keep in mind that you want a precise question that can be answered given the method or design you want to use. Although this may sound obvious, it can be tricky in practice. You might be interested in studying political attitudes and beliefs of college student athletes compared to non-athletes, but this is too general a question to get at quantitatively. If you didn't want to do a qualitative study on the issue, you would have to assemble a number of smaller research questions to get at this larger issue. For example, you would need to ask what attitudes college student athletes had towards politics, but also what their beliefs were. And then you would need to do the same for the non-athletes. Finally, you could ask the question as to whether there is any comparison. Alternatively, you want to avoid too specific of a research question that could be answered with little effort.

Research questions are a type of writing invention in quantitative studies and they are sometimes not included in the final write-up of the report or argument because the hypothesis, a requirement in most quantitative research, both reflects the research question and suggests a possible answer to that question. However, generally speaking, including your research questions won't hurt.

How Do You Develop the Hypothesis?

A hypothesis is possible in quantitative research because the precision of numbers, even nominal numbers, allows for a definitive answer to a research question. A hypothesis, simply put, is the best guess for an answer to the research question given what previous experience, research, or trends have shown in the past. A hypothesis is usually stated in one sentence. If you have multiple research questions, multiple hypotheses are often seen in a written report. The hypothesis is written as a declarative statement: "College students at Pacific State University are more likely to work off campus than on-campus." Notice that the hypothesis is not a question. You wouldn't say, "Do more people work on campus or off of campus?" That is a poor hypothesis—although it is a fine title for the overall report, and it may even be an interesting research question. In your hypothesis, you aren't predicting exact results—you wouldn't say, "I hypothesized that 57.0265 percent of people feel part-time work contributes very little to helping a person get a job after college." Instead of "57.0265 percent of people," you would just say "more people."

Your hypothesis is decided before you begin conducting your research. You never want to modify your hypothesis to fit your results after you are done with your study. The significance of your research is not a result of a correct hypothesis. If you're wrong, you're wrong. The purpose of any research is to advance knowledge. By making a bad guess, you eliminate the need for another researcher to come along after you and test the same hypothesis or make the same guess (although they may test the same topic with another hypothesis).

Some descriptive designs don't require a hypothesis. For example, much of the quantitative research available at the Bureau of Labor Statistics, the National Center for Educational Statistics, and the United States Census Bureau are not driven by a hypothesis—these places are simply collecting aggregate data. However, if you are doing an experimental or inferential study design, not only will you need a hypothesis, but often you will need to develop a null hypothesis as well. Null means "without value," so a null hypothesis is often the negation of a hypothesis. In an experimental study, a hypothesis might be that a particular drug has an effect on the growth of a tumor—the null hypothesis would be that the drug has no effect on the growth of a tumor. Because the level of significance is decided by the researcher, a null hypothesis is really what is being tested—that a level of significance isn't met means that the null hypothesis is confirmed. In descriptive studies, the need for a null hypothesis is not important because you aren't testing anything against some level of significance; it is only when the treatment or manipulation of a variable is involved do we see the need to have a null hypothesis.

Discussion and Practice

1) Think of a hobby or interest you have.
    a. What are some of the unanswered questions you have about that hobby or interest? List a few. Select one that might be studied through quantitative research. Construct a quantitative research question about it. Remember, a quantitative research question asks how many/often/different or whether a phenomenon exists or not. Also remember that this should be a new question and not one that can be easily answered.
    b. Based on your experience, what is your best guest at the answer—in other words, what do you hypothesize?
    c. Briefly state what your design (e.g. descriptive, experimental, inferential) and method (e.g. questionnaire, systematic observation, test) would be.
    d. After constructing your research question, switch research questions with a classmate and peer review it.
    Peer Review. In giving your classmate advice on how to better revise his or her research question, answer the following questions:
    - Is the research question something that can be discovered through a quantitative research using a questionnaire, systematic observation, or test?
    - Is the research question as narrow and precise as possible?

- Did your classmate pick the best quantitative research methods to answer the research question? Does the research question accurately reflect the research methods being used?
- Is the research question doable in the time-frame of the assignment?
- Is the research question asking for new knowledge? In other words, will it provide some new insight about the topic?
- Does the hypothesis follow from the research question?
- Are there any problems with the research question? Is it biased? Is it too obvious?

d. After answering these questions, if you think that any part of the research question needs to be changed, make sure to offer specific suggestions for revision along with your critique.

e. Switch research questions with your partner and go over your feedback with each other.

f. Revise your research question after hearing your partner's feedback.

Chapter Project: Step 1

As we have shown in chapter 5 and in this section of chapter 8, coming up with a research question can be difficult. Ideally, you want a research question that is interesting. Using the previous steps on researching a hobby or interest, or using guidelines for a research project your professor would like you to conduct, come up with a research question that you would like to develop into a final study and report.

Organizing Your Research Report: What is IMRAD, and Why Is It Useful?

Once you have devised a research question and hypothesis, you will conduct your quantitative research project based on one of the designs and methods presented earlier in this chapter. Because a great deal of scientific research uses quantitative designs and methods, one of the more common approaches to organizing a report of quantitative research is called IMRAD, which stands for Introduction, Methods, Results and Discussion. IMRAD organization is expected in practically all scientific writing situations today and is a very easy way to organize any type of systematic research, including qualitative, quantitative, and mixed methods research. You will see IMRAD organization in chemistry, biology, psychology, and education, and this standardized use helps researchers easily find the relevant details in a research study. Because such research doesn't have a narrative structure (as in a novel or story), the IMRAD format facilitates reading because it allows readers to find parts of the study that most interest them. The sections also separate the steps of the research process and allow the writer to provide depth to the various steps. For these reasons, when writing in IMRAD format, you should always include the section headings so your readers can easily find the information they are interested in.

A final note about IMRAD composing is that you shouldn't feel limited in writing each section in the order that they finally appear in. In fact, you might begin by writing your method section before you even conduct your study to help you think through issues that might get brought up during the study. Even though you will most likely be writing the method section like all the other sections in the past tense, writing a draft of the introduction or method before you conduct your study can help you conduct and write a better study.

What Goes in each IMRAD Section?

Abstract

Even though it will appear first, you should write your abstract last. The abstract introduces the topic and the hypothesis in 1-2 sentences, followed by a 1 sentence method and 1-2 sentences about the results. You may also talk about your discussion section, but sometimes researchers will often use a phrase such as, "implications of these results and future research are discussed" in the abstract. Abstracts are sometimes optional, and they aren't an integral part of the research and writing process, hence, why they often aren't in the IMRAD acronym.

Discussion and Practice

1. Who is your primary audience for an IMRAD research report? Why?
2. How does the IMRAD structure help the primary audience better read about research?
3. How does the abstract help the primary audience read scientific research?
4. Abstracts are basically summaries that devote space to the most important elements of a study. Many years ago, *The Kansas City Chemist* published a collection of abstracts as if written about common nursery rhymes. Can you figure out what nursery rhyme this one is?

   > A research team proceeded toward the apex of a natural geologic protuberance, the purpose of their expedition being the procurement of a sample of fluid hydride of oxygen in a large vessel, the exact size of which was unspecified. One member of the team precipitantly descended, sustaining severe fractural damage to the upper cranial portion of his anatomical structure: Subsequently the second member of the team performed a self-rotational translation oriented in the direction taken by the first team member. (Youngquist, 1971, p. 6).

5. Using the organization presented and the nursery rhyme abstract as a model, write an abstract for a movie that you have seen.

Introduction

Your introduction begins by briefly explaining the importance of the topic, followed by previous research or experience that leads to a clear explanation as to **why** you came up with your hypothesis. In writing your introduction, you will have to provide some details as to what made you come up with your hypothesis. The purpose is to lead your reader to your hypothesis.

In most scientific reports, the introduction would include an extensive review of the literature. Simply put, a literature review is an examination of a number of peer-reviewed research articles

in sources similar to the one you are writing for to show what other researchers have done on your topic and what still needs to be done.

All research builds upon previous scholarship. So, while the literature review is a summary of previous research on your topic, it is also an argument for how your research question is answering something new that has not been studied before. In other words, the literature review summarizes previous research in order to show how your own research is new and needs to be conducted. Explaining how your own research is new is called creating a **research gap**. You point out something that previous research has not done, and suggest how your new research will fill this research gap and add to our understanding of the phenomenon being studied.

Usually, the beginning of the literature review summarizes the previous research related to your research question and explains how it relates to your study. However, remember that in summarizing this previous research you are also building a case for why your own research is new, different, and relevant. The statement of the research gap often comes at the end of the introduction. Here you want to explain in a clear and concise statement what your research contributes to the ongoing investigation of the topic.

Here are some strategies to help you develop your research gap and differentiate your study from the previous research you have found:
- In what ways might your research extend previous research or take it to the next step? For instance, you could design a quantitative study that is similar to a previous quantitative study but also does something more and goes further in certain ways.
- Are there any problems with how the previous research was conducted that you could do better in your own study?
- Was there interesting research that was conducted on one particular population that has not been conducted on another population before?

In some situations, a literature review is less extensive when few studies have been published on your topic. Also, in lab reports, there is no need to write out an extensive literature review for a systematic study that has been conducted the same way hundreds of times in the past. In some situations, a lab report might need to be based on a previous lab report, and such information should be shared in the introduction.

Sometimes introductions have section headings such as Literature Review or Background—it will depend on your writing situation how you label these. If you are unsure on what headings to use for a paper in a class, ask your professor.

Discussion and Practice

1. Think of how an introduction works rhetorically. What role is it serving for its audience, and how does a good introduction best accomplish this in quantitative research?

2. Introductions can rely on personal experience in developing a hypothesis and background for the topic. Because experienced researchers have written and read a lot about their interests and topics, they can more readily draw from published sources, but in many research endeavors, not a lot has been written about a topic. Look at the following list of topics and decide whether personal experience or published sources would be preferable in developing your introduction and hypothesis. In some cases, you might want both.
   - Music preferences on your campus
   - Eating habits of college students in general
   - Test anxiety in high school and college students
   - Ant pheromone differences
   - Temperature effects on carbon nanofibers
   - Harmonic and melodic preferences in popular music
   - Student purchasing trends on your campus

Chapter Project: Step 2

Like all good research, quantitative research benefits from having a good plan. Most of the research plan can actually become part of an introduction. Return to your research question that you developer earlier in this chapter. Begin to further develop it by doing the following:

The easy introduction
1. Using the library or the Internet, look for one or more sources that are about your topic in general.
2. Find a source that might support your hypothesis or is about your specific research question. Note, you may have to triangulate the sources (see Chapter 3). As you have seen, for some research question you might have to use personal experience as a way to discuss your topic or hypothesis. If appropriate, think of how personal experience can help you in your topic or hypothesis.
3. Your draft might begin by writing about the topic, citing the general source you found previously, followed by another section that leads to your source about your hypothesis, and ending with your hypothesis.

The complex introduction
In larger and more complex projects with a lot of sources, it might benefit to begin with an annotated bibliography first, then move to crafting your introduction:

   Annotated Bibliography.
   1. Find five academic, peer reviewed sources that are related in some way to your research (for a refresher on what a peer reviewed source is refer to Chapter 3).

2. Include the end-text reference or works cited citation of each source in either APA, MLA, or Chicago for each of your five sources. Ask your professor for guidance. (Also, refer to Chapter 10 for more information on how to cite end-text citations.)

3. Underneath each citation, summarize the article. Make sure to be careful in your summary and either quote or use your own words while paraphrasing.

4. Make sure to clearly explain how each of your five sources relates to your research question

Literature Review.

Using the five sources you found for your annotated bibliography, write a 1-2 page literature review. In your literature review, remember that you are writing an argument for how your research is new—defining your research gap. So, in your literature review, you will clearly explain how your research is adding something new that the previous research did not mention or building upon the previous research.

Methods

The purpose of the method section is to describe every step you performed to gather your data. Everything from coming up with your experiment or questionnaire to performing your experiment to tabulating your data needs to be recorded so that future researchers, if they follow your exact steps, should find similar results. Everything that appears in your method section should be described explicitly. When writing a method section, think of writing directions to somebody you have never met on how to do what you did in your study.

Depending on the type of research question, the method section also serves these functions for your audience:

- Replicability – future researchers might need to do your experiment again.
- Validity – future researchers need to see if any potential variables might have led to your measurement not actually measuring what it says it is measuring.
- Context – future researchers need to understand your particular context and setting of your study

A method section should do the following if you haven't addressed these items in the introduction already:

- Determine your measurement unit – What you are measuring needs to be outlined as well as how you are measuring it. You could measure a person's ability to navigate a grocery store by either asking him or her or actually observing him or her. There are two different measurement units. Are participants reporting their attitudes and beliefs about a topic using a Likert scale on a questionnaire? Are you measuring the time it takes to shop for groceries in an unfamiliar store?
- Define terms and variables important to the study – Terms that are important to your study should be defined as early as possible. Many researchers define terms in their

introductions, but you might also have to define some terms including periods of time or definitions of participation in your method.

- Describe the collection and analysis of your data – You want to describe each step from collecting the raw data to aggregating the data to how you analyzed the data, as well as what you were comparing it to in responding to your research question and hypothesis.
- Define your level of significance – Remember that significance in quantitative research is decided by the researcher. In some descriptive studies, any difference could be significant as long as you argue this in your method. However, in most studies, significance is decided through statistical measurement, and some audiences will have a very specific expectation if you use the word significance in your report.

Many researchers will separate their method section tasks into sub-sections so that a method section might have up to five different parts. The most common are as follows:

- Participants/Subjects – who are the people being studied and what information did you gather (e.g. race, sex, age)? Although you see "subjects" in older studies, when dealing with people, the current research term is "participant." The word "subject" treats the participants in your study as objects to be studied instead of autonomous, real people.
- Design – how did you design your study to gather your data?
- Setting – where did your study take place? What variables of the study influenced it?
- Equipment – what did you use to gather your data? Questionnaire? Rubric?
- Procedures – what steps did you follow to gather your data?

For many low-stakes, descriptive studies, such separation might not be necessary and can lead to repetition or be too simple to be meaningful for your audience.

Discussion and Practice

1. As with other sections, methods sections in quantitative research rely on certain rhetorical appeals. Consider logos, ethos, and pathos—in what ways does a method section make each of these appeals?
2. What is the purpose of separating the methods section into subsections for certain types of studies? Why could these subsections be important for the audience?
3. You might have done the scientific method task in school before where you had to make a method for creating a grilled cheese or peanut butter and jelly sandwich. Working with one other person, devise a method for some common function in your lives. This can be anything from playing a video game, brushing your teeth, arranging the perfect workout playlist, etc. Write out the details of this activity to be followed by another person who you have never met. Share this method with another pair of students. What are the most common problems that you run into in trying to figure out somebody else's method? How can you prevent this when writing a research method?
4. There's an old saying in research that goes, "Friends read your abstract, colleagues read your results, and enemies read your method." Why do you think this is the case?

Chapter Project: Step 3
Return to your research question and newly drafted introduction from before. Begin working on a method section for your study. Once you have a draft, share it with a peer for feedback.

Results
The purpose of the results section is to report the aggregate and inferential data or results of your experiment. You would start this section by answering whether you supported or refuted the hypothesis. Next, you would present data and percentages (or, in some cases, ratios) of your data. Finally, you report what the results mean in relation to your research question and hypothesis. You would also report the rest of your survey responses in this section, but make sure you separate your primary hypothesis from these other results so it is clear. In reporting your results, it is important to maintain your stance as an external observer and avoid inserting your own reactions, interpretations, or biases. The results section is "just the facts;" you should save additional commentary for the discussion section that follows.

Many times, results sections use pie charts, graphs and tables to show trends or descriptive data, but in every case, you also have to describe with words how to read the table or figure. You don't want to describe all of the data in the table, but you should describe noteworthy data—just let the visual representation do the work for you. Every figure and table should be labeled and numbered. You should refer to the figure or table by that label and number in your text. For example, you might write something like, "note in table 3 the differences between figures and tables in APA style." For more information on using tables and figures, refer to Chapter 11: Visual Representations of Data.

Table 3
Differences between figures and tables in APA

Label / Label abbreviation	Figure Fig. #.	Table Table #
Consists of	Graphs, diagrams, maps, images	Text organized in columns and rows
Label location	Below the figure	Above the table
Caption	With label, below figure, describes figure	Below table, optional, describes abbreviations

Discussion and Practice

1. Results sections often rely on visual representations of data via tables and figures. What are the advantages and disadvantages of capturing quantitative data in tables and figures for your audience?
2. Those new to this style of writing often make the mistake of dumping all the quantitative information on the page rather than crafting a specific report of findings. Why do you think this is the case? Why is it important to craft a reporting of the data in the results section?

3. Refer back to Table 5.2 that contained data for short survey on student writing and reading habits. With a peer, write a short results section for that data. How would you represent the data visually? What would you focus on in reporting using text?

Chapter Project: Step 4
If you have continued to work on your own research question, and have data, begin working on your results section. Share your results with a peer.

Discussion
The discussion section is for the researcher to describe the significance, implications, and limitations of the results, and finally offer some suggestions for future research. In the discussion section, you answer the "so what?" question. You analyze and discuss the results by addressing the following:

- What do these results mean outside of your study?
- What use is the information for researchers or non-researchers?
- Did anything happen that you didn't expect? How did that influence the results?
- Did you mess up the method or analysis?
- Did you forget to address some variables?
- Do you have suggestions for future researchers?

Remember: you cannot redo the research. If it's a disaster, say so, and say why.

Implications should both address what your research results mean, as well as suggest avenues for further research. The discussion section is the place for you to speculate about *why* you found what you found. This might involve comparing your results to those of previous studies or interpreting your data based on sources from your literature review. Imagine you were studying mobile phone habits of college students. Your findings might support a hypothesis that students spend more time texting than using making voice calls. However, you might have found a trend that students text friends more, but make voice calls to family more—a finding you hadn't accounted for in your introduction and literature review. Thus, you might seek out some other research or discuss why this might be the case in this section. The discussion can also include any other pertinent content that doesn't belong in other sections of the report.

Differences in the **discussion** and **results** section might seem confusing at first. To separate them better, think of it this way. Results are what you found and how it was related to your hypothesis, and the discussion talks about what the results mean beyond the study, beyond the hypothesis, and for the future. As a researcher, you will *report* in the results and *interpret* in the discussion.

Discussion and Practice

1. How do the results and discussion sections differ rhetorically for your audience? As you consider this, think of how approaches to constructing a persona may be different in these two sections.

2. What are the benefits and drawbacks of writing about any mistakes you made in the discussion section?
3. Why do you think suggestions for future research is so important as the last part of the discussion section?
4. In the Results Discussion and Practice, we asked you to write a short results paragraph about Table 5.2. Write a short discussion about these findings, mainly answering what the limitations, implications, and significance of the findings were. You obviously cannot discuss any mistakes in the method, but based on the data, there are some limitations.

Chapter Project: Step 5
If you have continued to work on your own research question, and have data, begin working on your discussion section. Share your results with a peer. Your peer might use the following peer review questions for the discussion section (even though these are yes/no questions, peers should add suggestions for how to improve each part):

- Does the discussion begin by discussing the overall findings of the study?
- Does the discussion draw on additional sources or refer to the introduction or previous findings?
- Does the discussion cover the significance or importance of the findings?
- Does the discussion refer to the implications for the findings, considering what it could mean outside the setting or in future instances?
- Does the discussion cover any limitations to the study, or any mistakes that may have been made that influences the results?
- Are suggestions for future research given?

Appendices
Appendices are additional documents that help other researchers who are reading your study either consider your results more carefully or help them create future research questions. Such things as raw data, questionnaire or observation rubric research instruments, or artifacts that were analyzed are often included in appendices.

References
Past research that you cited in your report or study should be included in a references section. Refer to Chapter 10 for more information on how to cite and format this research.

How Do You Select Tense or Voice in Writing about Quantitative Research?

As we have indicated thus far in this chapter, quantitative research methods and writing strategies are often seen in the sciences. These writing situations generally require the researcher and writer to use a certain writing style. When a researcher is writing for other scientific researchers, he or she will use formal and precise language, in third-person, past-tense, making the final thing the researcher is writing about seem to exist independently of the researcher's observation.

The use of past tense is used to tell the audience that the researchers, on this past particular day, using these methods, found this particular thing. Past tense tells a future audience that it may not find the exact same thing. Past tense is very common because there is never a guarantee that a study will find the same thing again. However, there are some phenomena that exist in an unchanging state. In these research instances, you may find that you can use present tense (specifically, present habitual tense), when studying something that exists habitually or persistently (e.g. a celestial body or the number of "thees" in Shakespeare's Hamlet). Sometimes researchers who are looking at persistent phenomena will use present tense.

Generally speaking, using past tense for your research is most common, except, obviously, when suggesting future research. However, voice is different. What we mean by voice is whether you refer to yourself in the research as "I/we," refer to yourself as "the researcher" or refer to yourself passively, "the research was conducted." The voice you select depends on the audience you are writing for, but in all cases it is important to be consistent. If you pick first person, active verbs, then use such a voice throughout your piece. Thus, there are two important rules to keep in mind: (1) follow the example of previous writing in similar rhetorical situations; and (2) always be consistent. That being said, let's talk about why you may or may not read or use these different voices in research:

- Passive voice foregrounds the data/study and backgrounds the researcher. By saying, "A questionnaire was handed out to participants at a local college campus," what is important is the instrument and the participants. We don't care who handed out the survey.
- Third person, active voice places the writer as on objective recorder of the study. In certain instances, this is actually a reality—in some collaborative projects, the person writing the final report might not have conducted one or more tests or procedures, so it is easier to just explain, "the researchers added a dye to the solution." However, this voice is also used when only one researcher is conducting the study and writing it up.
- First person, active voice places the researcher as active creator of the study and results. In reality, the researcher *is* the creator of the study, and a recent trend in scientific discourse is to allow first person voice. An example would be, "Using a digital body fat caliper, I measured the body fat percentage of the participants before and after the ten week treatment." However, you may still find instances where the proceeding style might not be accepted in the sciences.

Admittedly, these are commonly practiced style conventions, and they are not hard and fast rules. After all, despite the "objective" sounding third person or passive voice, the researcher is always the creator of a study, and it is from his or her perspective that the introduction, method, results and discussion are written. Although there is an attempt to be an objective observer of phenomena or an experiment, this, in fact, is impossible.

Consider the writing styles of the following abstracts:

Abstract Example #1

The authors examined how an applicant's handshake influences hiring recommendations formed during the employment interview. A sample of 98 undergraduate students provided personality measures and participated in mock interviews during which the students received ratings of employment suitability. Five trained raters independently evaluated the quality of the handshake for each participant. Quality of handshake was related to interviewer hiring recommendations. Path analysis supported the handshake as mediating the effect of applicant extraversion on interviewer hiring recommendations, even after controlling for differences in candidate physical appearance and dress. Although women received lower ratings for the handshake, they did not on average receive lower assessments of employment suitability. Exploratory analysis suggested that the relationship between a firm handshake and interview ratings may be stronger for women than for men.

Stewart, Greg L.; Dustin, Susan L.; Barrick, Murray R.; Darnold, Todd C. (2008). "Exploring the handshake in employment interviews." *Journal of Applied Psychology, 93*(5), 1139-1146.

Abstract Example #2

The relationship between the social composition of top management teams and innovation adoptions was examined in a sample of 199 banks. The following characteristics of top management teams were examined: average age, average tenure in the firm, education level, and heterogeneity with respect to age, tenure, educational background, and functional background. In addition, the effects of bank size, location (state of operation), and team size were assessed. Results indicate that more innovative banks are managed by more educated teams who are diverse with respect to their functional areas of expertise. These relationships remain significant when organizational size, team size, and location are controlled for.

Bantel, Karen A. & Jackson, Susan E. (2007). Top management and innovations in banking: Does the composition of the top team make a difference? *Strategic Management Journal, 10*(S1), 107-124.

Abstract Example #3

Identifying binaries among runaway O- and B-type stars offers valuable insight into the evolution of open clusters and close binary stars. Here we present a spectroscopic investigation of 12 known or suspected binaries among field and runaway OB stars. We find new orbital solutions for five single-lined spectroscopic binaries (HD 1976, HD 14633, HD 15137, HD 37737, and HD 52533), and we classify two stars thought to be binaries (HD 30614 and HD

188001) as single stars. In addition, we reinvestigate their runaway status using our new radial velocity data with the UCAC2 proper-motion catalogs. Seven stars in our study appear to have been ejected from their birthplaces, and at least three of these runaways are spectroscopic binaries and are of great interest for future study.

McSwain, M. V., Boyajian, T. S., Grundstrom, E. D., & Gies, D. R. (2007). A spectroscopic study of field and runaway OB stars. *The Astrophysical Journal, 655*(1), 473–483.

1. What are the similarities and differences in the voice and tense used in these examples?
2. Briefly scan the scholarly, student and public/popular examples in Chapters 6, 7 and 8. What are the similarities and differences in the voice and tense in those articles?
3. Is it possible to be completely objective when doing quantitative research? Why?

How Do You Write about Quantitative Research for a Popular or Public Audience?

There are many rhetorical situations in which quantitative research will need to be presented to an audience who is unfamiliar with many of the concepts that we have discussed here. Most audiences can understand simple percentages and explanations of probability if given a common frame of reference, but beyond that, audiences can get bogged down in advanced statistical procedures. It is important to recognize the limits of what can be expressed not only when writing but reading quantitative research in popular publications.

Most quantitative research that appears in public spaces is heavily revised. Sometimes the original researcher revises a study to secure funding from another agency or revises some part of a study for a press release that helps communicate an important finding to the public at large. At other times, a corporation or agency will contract a research firm to conduct a study that they then will publish. This process can get really confusing sometimes. Take, for example, the article at the end of this chapter, "Survey Shows New Media Can Be Compatible with Old" (Jeffrey, 1998). MTV Networks hired a research firm called Audits & Surveys Worldwide to do a study on media. MTV most likely received a report that was probably dozens if not hundreds of pages, so they revised one or two important details into a press release, which Billboard magazine probably received. Don Jeffrey revised the whole story to include comments from the MTV Networks and data from the original survey.

Although we cannot cover every rhetorical situation, we want to cover a few basics of writing about quantitative information for a popular audience.

Focus on one important finding
One of the advantages of quantitative research is the multiple layers and relationships that numbers can provide. Imagine the amount of data that a simple survey could generate just by

asking GPA, music and movie preferences, amounts listened to/watched, gender, and college major. However, you cannot present all of this because an audience who is reading a newspaper or magazine would become overwhelmed. Instead, select one key or important finding. As we indicated earlier, this is a rhetorical choice. If writing about movies, then focus on how two factors interact—movies and college major. If writing for a college newspaper, then spend more time discussing GPA and preferences in general. If you are writing to get funding for a campus-wide online music subscription, then focus on GPA and music. Sometimes, your research question can be the key to providing the one point you want to make. Other times, the results of the research might reveal some new insight.

Use visuals and tables
Visually representing quantitative information is an important part of revising for a public audience. That does not mean complex matrices and three-dimensional data models—instead, provide simple tables or graphs. Present one finding that is also described in the text of your story. As we discuss in the visual design chapter (Chapter 10), people can only process a limited amount of information at a given time. A popular publication simplifies this even more because people expect to see at a single glance what a chart or graph means. Admittedly, you are going to have to leave a lot of information out, but that is common practice.

Avoid statistics or math that you have to explain
Even the most basic statistical measures, whether Student's t-test or standard deviations, are usually meaningless to your audience. In fact, standard deviations are often converted to measures of standard error or confidence intervals that can be expressed more simply as plus/minus a certain number from an average that is presented. You may have seen this in political polls in which a prediction of the vote is given as a percentage followed by the error (e.g. 34% +/- 3%). Of course, this is only useful for presenting inferential data. Usually, descriptive data simply states the percentages much like Jeffrey (1998, July 11) does in "Survey Shows New Media Can Be Compatible with Old." If you ever need to describe some statistical measure that is important to your study, make sure to use terms and concepts that might be familiar to your audience.

Explain the methods and source of your data
Although you want to avoid the specific details of your original study, you do need to provide for your audience a description of how the data was collected or study was conducted. This description is often 1-2 sentences for most studies. Furthermore, you should provide any relevant details about where the original study came from or where it will appear if it is to be published.

How Do You Write a Press Release?

The purpose of a press release is to report on information that the writer thinks is important to an audience. A press release is a newspaper story written by a company, organization, researchers, or some other group of people to inform the public about something that any of these people did. Whether Apple is releasing a new computer or researchers at your university discovered a specific genetic locus for ADHD, it will usually be accompanied by a press release.

Press releases are written from the point of view of an observer, like a newspaper story, in hopes that a major news source either reprints the release or delves further into the topic through an interview or follow-up. Press releases, even those written by a study's authors, are written in third person, as from the perspective of an objective reporter, providing essential details for a public audience. They can sometimes include quotes from the study authors or the company employees, as if interviewed. Press Releases are written in journalistic style, for a public audience, so any technical language, jargon, or company/university specifics should be written as simply as possible.

Western University
1600 University Ave., College, CA 92931

FOR IMMEDIATE RELEASE

Contact: Bob Jones
Email: bjones@wuca.edu
Phone: (555) 555-1234

STUDY FINDS LACK OF EXERCISE LEADS TO OBESITY

It might not be that half-pound hamburger and bucket of fries that is making your waistline feel tighter – it could have more to do with the fact your job has you sitting down for eight hours straight.

A new study released today from Western University reports that a sedentary lifestyle has a greater effect than diet or genetics on how much weight a person gains.

"We might have assumed this is the case, but we were really surprised at how great a difference there really was between activity, diet, and genetics," said Dr. Robert Masters, study lead. Dr. Masters and his team, Dr. Susan Irving and graduate student Cybil Montgomery, began their study with a survey of 1,700 people, and then conducted follow-up, 3-year case studies with 50 of those initially surveyed. The researchers found that those who were classified as obese or severely obese according to the Body Mass Index, a standard for determining a person's size based on his or her age, weight and height, were more likely to lead a sedentary lifestyle than they were to have genetic history of obesity or to have a diet of over 2,000 calories a day. For comparison, a half-pound hamburger has 740 calories.

The study, released in next month's issue of *Obesity*, contributes to the growing understanding about the number one contributor to health problems in Americans.

Dr. Masters has published numerous articles on the topic of obesity, its origins and effects. His work on the topic has informed numerous health care professionals in treating and preventing severe obesity.

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Figure 8.4 Sample Press Release

Writing the Press Release
There are a few variations in press releases, so this can depend on the practices of your company or university. Despite these variations, your release should cover the following:
1. Paragraph 1: Begin with what your release is about, answering the questions: Who, What, Where, When, and How
   Variation: Some press releases begin with a catchy lead or hook. Keep this simple and brief—1-2 sentences at the most.
2. Paragraphs 2+: Further details about the study/topic. The most important information should come early on, mainly a specific finding. Follow this with your method, where your study will appear, and any other findings that might seem relevant.
   Variation: Some press releases use quotes that are appropriate to the topic, either from the study authors, experts, or from people the findings might affect.

3. Last Paragraph: You should finish your press release with information about the researcher, university, or company the release is from. If this is a company press release, provide background about the company. If this is a study or survey, provide relevant background about the researchers.

Formatting the press release

A traditional press release follows the format in figure 1. Top headings, contact and release info is all single spaced. The rest is double spaced without any extra spaces.

1. Company/Institution Logo/Letterhead
2. FOR IMMEDIATE RELEASE or FOR RELEASE MAY 24, 2010 (all caps, aligned right)
3. Contact: Contact information (email or phone)
4. TITLE (all caps, centered)
5. End the page with ###. Alternatively, you can write –30–, an older version of the press release end-of-story indicator. This originated from the days of the telegraph and wire reporting in which the person sending the story would indicate that he or she was taking a 30 minute break. If your press release is more than one page, then the bottom of the first page should have a –more– with the final page showing the ###.

Discussion and Practice

1. Read through the Scholarly Example in this chapter, "Leisure Time Boredom: Issues concerning College Students" by Benjamin D. Hickerson and Brent A. Beggs (2007). Write a press release as if you were on the research team, sharing one key finding of the study for a popular audience.

Scholarly Example

"Leisure Time Boredom" appeared in the December 2007 issue of the *College Student Journal*, a peer-reviewed, academic journal published by Project Innovation, Inc. The journal publishes qualitative, quantitative and text-based research on college students' attitudes, behaviors, and values and has been around since 1963. It has a wide range of articles on topics such as the representation of students in the movie *Animal House*, gender differences in seating arrangements, and perspectives on materials posted outside faculty offices. Benjamin Hickerson was a graduate student at North Carolina State University in the Parks, Recreation, and Tourist Management program when this was written. Brent Beggs is a professor at Illinois State in the School of Kinesiology and Recreation.

Leisure Time Boredom: Issues concerning College Students

Benjamin D. Hickerson, North Carolina State University
Brent A. Beggs, Illinois State University
College Student Journal

Abstract

Students who do not have leisure skills, cannot manage leisure time, or are not aware that leisure can be psychologically rewarding are more likely to be bored during leisure. This study examined the impact of boredom on leisure of college students in relation to gender, level of education, and activity choice. Subjects at a Midwestern university completed the Leisure Boredom Scale and a modified version of the Leisure Activities Blank. No significant differences were found between overall levels of leisure boredom and the three independent variables. However, examinations of individual Leisure Boredom Scale items indicated specific differences. Examples of the findings included that males were more likely than females to agree that they became highly involved in what they did during their leisure and that they were very active during their leisure. Females were most likely to select passive activities as their activity of choice. Students who chose passive leisure activities were less likely to agree that they were very active in their leisure than the other three activity groups. From these differences, implications were constructed for the development and maintenance of campus recreational programs.

Introduction

For many young adults, the college years are a period of expanding freedoms and focusing interests (Gitelson & Thomason, 1992). College is seen as the last stage of formal education for most people and it is also one of the last structured opportunities for individuals to form leisure time behavior patterns before they move into the workforce (Cheng et al., 2004). The college environment has a unique influence on leisure behavior, including different patterns of free time availability and the acquisition of new activities. Leisure participation in college students has long-term ramifications as it molds attitudes and behaviors leading to continued recreation participation in later life (Gordon & Catalbiano, 1996; Hultsman, 1993).

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Comment [RC1]: In APA, format, level 1 headings are the major headings, and are centered.

Comment [RC2]: This abstract follows the following organizational strategy:
1 sentence on the topic or issue the research is exploring
1 sentence on the purpose
1 sentence on the method
4 sentences on the results
1 sentence on the discussion

Comment [RC3]: In APA, as in most science writing, past research is often paraphrased with little to no interpretation, followed by the citation, just as it is here.

Comment [RC4]: This first paragraph is a synthesis of three studies, each building off of one point to the next. Often in research, your topic is new, so you have to show how research on other topics follows a path to your research – or builds a research gap that your research will fill.

During this formative period, many college students display positive leisure behaviors. However, some may exhibit negativity or deviance in their leisure. These deviant behaviors can be caused by a lack of leisure skills and the presence of leisure boredom. Gabriel (1988) noted that if boredom is a problem in critical development periods of leisure behavior, individuals may seek relief from the unpleasantness of this repression by entertaining various methods of deviant or negative behaviors. The purpose of this study was to examine boredom of college students during their leisure.

Background

Iso-Ahola and Weissinger (1990) defined leisure boredom as, "A negative mood or state of mind that reflects a mismatch between optimal experiences that are perceptually available to an individual" (p. 4). Feelings of leisure boredom can be created by meaningless leisure or multiple constraints. Additionally, people who do not have leisure skills, cannot manage leisure time, or are not aware that leisure can be psychologically rewarding are more likely to be bored during leisure (Iso-Ahola & Weissinger, 1990).

Numerous instruments have been conceptualized to measure boredom during leisure, including the Zuckerman Boredom Susceptibility Scale (Zuckerman, Eysenck, & Eysenck, 1978), Boredom Proneness Scale (Farmer & Sundberg, 1986), and the Free Time Boredom Scale (Ragheb & Merydith, 2001). However, the most utilized measurement tool of leisure boredom is the Leisure Boredom Scale (LBS) created by Iso-Ahola and Weissinger (1987).

Iso-Ahola and Weissinger (1987) first used the LBS to examine perceptions of leisure as boredom. Six psychological factors including leisure ethic, work ethic, leisure repertoire, awareness, constraints, and self motivation were measured and accounted for 60% of the total variance of leisure boredom. A major finding in these results was that awareness of leisure opportunities accounted for more than one-half of this variance. Sociological variables such as age, gender, race, income, and employment status were also examined. Only gender and income were found to be statistically significant.

Iso-Ahola and Crowley (1991) used the LBS and found that adolescent substance abusers were more likely to experience leisure boredom than nonsubstance abusers. An unexpected finding in this study was that on a separate measure of activity participation frequency, substance abusers participated more frequently in leisure activities. A hypothesized explanation for this phenomenon was that many of the substance abusers were of the arousal seeking personality type. Due to the fact that they were seeking arousal, they may have participated in leisure activities more frequently in order to try and alleviate boredom. Patterson, Pegg, and Dobson-Patterson (2000) found no significant relationships between leisure boredom, alcohol usage, and self-determination among young people in rural and urban areas in Australia. However, results did indicate that the rural females were significantly more bored with their leisure than any of the groups.

Weissinger, Caldwell, and Mobily (1992) examined the leisure perceptions of college recreation majors versus non-majors. The results indicated that majors had a more positive perception of leisure in terms of boredom, ethic, and motivation, but not satisfaction or participation. Weissinger (1995) studied the effects of leisure boredom on self-reported health in college-aged students. Students who were more bored with their leisure reported that they

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Comment [RC5]: They use a contrasting strategy to show that leisure boredom is a bad thing, and thus, it is important to understand.

Comment [RC6]: Note that there is no hypothesis. As a descriptive study, using some inferential measures to look for possible relationships (but not test relationships), there is no need for a hypothesis here.

Comment [RC7]: The researchers have called their full literature review Background, which is common for the journal they are writing this for.

Comment [RC8]: The researchers are revealing that other instruments for leisure analysis have been created, but they are going to use one that has been the most used.

Comment [RC9]: They then show what that instrument revealed in a previous study.

Comment [RC10]: This paragraph looks at research of adolescent substance abusers attitudes towards leisure as one background study.

were not as healthy mentally or physically as those who were less bored. While many variables related to boredom have been examined, leisure boredom based on the types of activities that college students participate in has not.

Multiple variables concerning leisure participation have been examined. Beggs, Elkins, and Powers (2005) found that females were more likely to participate in non-competitive recreational sports programs and activities in which they could avoid conflict. Previous research has also indicated that level of education is not a factor in recreational pursuits (Beggs et. al, 2005; Weissinger, 1995). Iso-Ahola (1989) noted that participation in recreational activities is used as a mechanism to cope with constant demands in college. These activities play an important role in helping students balance and improve the quality of their lives. Direct correlations have been made with participation in recreational sports programs and positive behaviors including community service, avoiding smoking, and attending religious services (Downs, 2003). Downs also indicated that three potential benefits of recreational sports are improved emotional well-being, reduced stress, and improved overall happiness. Ellis, Compton, Tyson, and Bohlig (2002) found that those who participated more frequently in campus recreational activities had more positive levels of health and quality of life. Overall, campus recreational sports have shown significant amounts of importance to college students.

The purpose of this study was to examine boredom of college students during their leisure. The demographic variables gender and level of education were examined as well as the types of activities that students participated in. Activity participation included four categories: active outdoor adventure activities, active competitive team sports, active individual sports, and passive activities.

Methods

This study utilized survey research methods and consisted of a convenience sample of 474 subjects enrolled in undergraduate courses at a Midwestern university. Courses were selected using criteria that they were representative of overall university enrollment in regards to gender, level of education, and major concentration.

The survey instrument consisted of 20 items that were divided into three sections. The first section consisted of the LBS and was used to measure leisure boredom. A modified version of the Leisure Activities Blank (LAB) by McKechnie (1975) was used to identify the category of activities that the subject was most likely to participate in. The last section consisted of demographic items including gender and level of education.

The LBS is a 16 item, Likert-type scale containing questions about perceptions of leisure and leisure time usage. The reliability for the scale was reported at .85 (Iso-Ahola & Weissinger, 1990). In the instructions of the instrument, leisure time is defined as all non-work hours. This study modified the statement to define leisure time as all non-work and non-school hours due to the sample. Subjects responded from 1 (strongly disagree) to 5 (strongly agree) to indicate their feelings about the items. Reverse coding was used on eight items with positive leisure connotations and direct coding was used on eight items with negative connotations. An overall mean score was tabulated from all 16 items. Higher scores indicated greater levels of leisure boredom.

The LAB consists of 120 popular leisure activities each divided into six separate categories. The groups are mechanics, crafts, intellectual, slow living, sports, and glamour

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Comment [RC11]: This study more specifically looked at recreation majors versus non-recreation college majors, but they did not ask about leisure boredom. The paragraph proceeding this one and this paragraph open a research gap. The sentence here describes what this study will examine that has not been examined before by any other study. Specifically examining the population of college students creates this gap.

Comment [RC12]: This paragraph outlines various studies that have looked at one or more variables, but not all the variables that these researchers are interested in.

Comment [RC13]: Note the progression of all of the Background paragraphs.
- The leisure boredom is important to study
- LBS questionnaire instrument is effective for measuring leisure boredom
- Adolescent substance abusers experienced high leisure boredom.
- College students have been studied as to their leisure, but not their boredom
- Because college is demanding, and students are susceptible to deviant leisure activities while having a bunch of new activities available to them, they should be studied.
- Thus, we are studying them and the following variables, including type of activities.

Comment [RC14]: They discuss their research protocol and participants first.

Comment [RC15]: They give complete details about the LBS and how they revised it for their specific research question.

Comment [R16]: They give the specific statistical reliability of the LBS since reliability is crucial for quantitative studies.

Comment [R17]: The researchers specifically define their variables, even though concepts such as leisure seem to be common sense. In a quantitative survey, it is essential to define all variables because differing definitions can substantially change the data set. It's also important to make sure your participants taking your survey understand how all of your variables are defined, even if they seem to be commonsense terms.

Comment [R18]: The researchers even explain how the Likert scale on the LBS was worded to ensure that other researchers reading this study can replicate it more precisely if needed.

Comment [R19]: How the survey data was statistically coded or analyzed is explained.

sports. The six groups items' included on the LAB have reliability measures ranging from .76 to .94 (McKechnie, 1975). The LAB has been modified because of time duration, lack of necessity for items, and outdated activities (Lounsbury & Hoopes, 1988; Ragheb & Griffith, 1982). For this study, the LAB was modified to consist of four categories instead of six: outdoor adventure activities (e.g., climbing, geocaching, and mountain biking), active competitive team sports (e.g., basketball, hockey, and football), active individual sports (e.g., golf, running, and tennis), and passive activities (e.g., dining out, scrap booking, and television). Subjects selected one of the four categories to indicate which type of activities they were most likely to participate in. Examples that fall in each of these categories were derived from the LAB and a panel of experts to establish content validity. In addition, a pilot study (*N* = 63) was conducted to determine instrument reliability. Cronbach's alpha reliability measure of the pilot was .92, establishing the instrument as a reliable measure.

> **Comment [R20]:** The researchers explain in detail their survey categories and also give a rationale for choosing these categories.

The survey was administered to subjects by the principal investigator in classrooms in April 2005. T-tests and ANOVA procedures were conducted to examine differences between groups concerning leisure boredom. To account for multiple comparisons a modified Bonferroni adjustment was applied, reducing the significance level to .003.

> **Comment [RC21]:** The researchers here are using Student's t-test and ANOVA to show that even though they tested a few different groups, they were the same for statistical purposes.

Results

Students in this study reported moderate to low levels of leisure boredom. Overall, the average score for students on the leisure boredom scale was (*M* = 2.14). The items on the LBS that students indicated the greatest levels of leisure boredom were "I waste too much of my leisure time sleeping" (*M* = 2.52, *SD* = 1.12) and "In my leisure time, I want to do something, but I don't know what to do" (*M* = 2.49, *SD* = .87). The items with the lowest scores on the LBS were "Leisure time is boring" (*M* = 1.71, *SD* = .83) and "I am excited about leisure time" (*M* = 4.27, *SD* = .76). Leisure boredom was further analyzed by gender, level of education, and activity choice.

> **Comment [RC22]:** First sentence of the results should confirm or reject the hypothesis. In a descriptive study, it should respond to the research question.

> **Comment [R23]:** After answering the research question in general, give the specific details that support your overall findings. In quantitative research, this includes statistical findings – in this case, the mean or average response.

> **Comment [R24]:** Here the researchers get into more detail with their results. Notice that they are not just dumping all of their results, but are highlighting the results that are most pertinent to answering their research question.

Leisure Boredom and Gender

Fifty-eight percent of the subjects were female (*N* = 276) and 42% were male (*N* = 197). Results from t-test analyses indicated no significant differences between overall leisure boredom scores and gender (Table 1). However, significant differences were found between the groups on four of the individual LBS items. Males (*M* = 3.84, *SD* = 0.84) had significantly higher scores than females (*M* = 3.61, *SD* = 0.78) on the item "During my leisure time, I become highly involved in what I do." Males (*M* = 4.18, *SD* = 1.02) also had significantly higher scores than females (*M* = 3.65, *SD* = 1.14) on the item "If I could retire now with a comfortable income, I would have plenty of exciting things to do for the rest of my life." In addition, males (*M* = 3.66, *SD* = 0.88) had significantly higher scores than females (*M* = 3.40, *SD* = 0.83) on the item "I am very active during my leisure time." Females (*M* = 2.05, *SD* = 0.78) had significantly higher scores than males (*M* = 1.79, *SD* = 0.87) on the item "I do not have many leisure skills."

> **Comment [R25]:** Notice that they are providing the mean (M) and standard deviation (SD) for each point of data.

> **Comment [R26]:** Notice that the results are just spelled out in descriptive writing and with numbers. However, there is no analysis of why the researchers thought they got these results. That analysis will come in the discussion.

> **Comment [RC27]:** Even if college students do not experience much leisure boredom, they found some interesting relationships. Here is where inferential analysis can provide much more than just descriptive analysis.

Table 1

Leisure Boredom and Gender - t-tests

	Female		Male		
	M	SD	M	SD	t
Leisure time drags	1.83	0.84	1.88	0.91	0.55
Highly involved	3.61	0.78	3.84	0.80	3.11*
Leisure time is boring	1.75	0.84	1.67	0.81	1.05
Retire now, things to do	3.65	1.14	4.18	1.02	5.20*
Spinning my wheels	2.24	0.84	2.15	0.91	1.08
Don't like leisure	1.88	0.83	1.86	0.84	0.27
Aroused and going	3.55	0.79	3.70	0.89	1.91
Important to quality of life	4.08	0.77	4.24	0.81	2.19
Excited about leisure	4.24	0.74	4.31	0.77	0.98
Don't know what to do	2.54	0.95	2.43	0.95	1.28
Waste leisure time sleeping	2.57	1.15	2.46	1.06	1.11
Like to try new leisure	3.77	0.81	3.85	0.83	1.06
Very active leisure	3.40	0.83	3.66	0.88	3.25*
Leisure does not excite	1.80	0.67	1.77	0.82	0.50
Do not have leisure skills	2.05	0.78	1.79	0.87	3.45*
Always something to do	3.69	0.88	3.78	0.95	1.00
Overall leisure boredom	2.09	0.51	2.21	0.49	0.55

Note. Female (n = 276); Male (n = 197).
*p < 0.003

Leisure Boredom and Level of Education

Ten percent (*N* = 45) of the respondents were freshmen, 25% (*N* = 113) were sophomores, 30% (*N* = 139) were juniors, and 35% (*N* = 160) were seniors. Results from ANOVA procedures indicated no significant differences between overall leisure boredom and level of education (Table 2). However, significant differences were found on two specific LBS items. Seniors (*M* = 3.84, *SD* = 0.82) scored significantly higher than freshmen (*M* = 3.40, *SD* = 0.78) on the item, "During my leisure time, I become highly involved in what I do". Seniors (*M* = 4.12, *SD* = 1.07) also scored significantly higher than freshmen (*M* = 3.40, *SD* = 1.21) on the item "If I could retire now with a comfortable income, I would have plenty of exciting things to do for the rest of my life."

Comment [RC28]: Like a t-test, an F score, ANOVA is comparing whether two items or in this case, two sets of items are similar, different, or statistically significantly different.

Table 2

Leisure Boredom and Level of Education - Analysis of Variance

	Freshman		Sophomore		Junior		Senior		
	M	SD	M	SD	M	SD	M	SD	F
Leisure time drags	2.00	0.93	1.99	0.97	1.88	0.83	1.71	0.81	2.24
Highly involved	3.40	0.78	3.65	0.73	3.66	0.79	3.84	0.82	4.55*
Leisure time is boring	2.00	1.02	1.65	0.79	1.81	0.84	1.61	0.76	2.86
Retire now, things to do	3.40	1.21	3.65	1.14	3.91	1.07	4.12	1.07	5.19*
Spinning my wheels	2.31	0.82	2.35	0.85	2.13	0.85	2.12	0.91	1.67
Don't like leisure	1.87	0.73	1.92	0.84	1.88	0.82	1.86	0.90	0.08
Aroused and going	3.49	0.82	3.39	0.86	3.69	0.78	3.68	0.86	3.37
Important to quality of life	3.96	0.82	4.00	0.82	4.17	0.79	4.27	0.76	2.78
Excited about leisure	4.22	0.70	4.16	0.87	4.22	0.75	4.41	0.68	2.28
Don't know what to do	2.73	0.91	2.57	0.86	2.50	1.00	2.38	0.98	1.52
Waste leisure time sleeping	2.67	1.19	2.58	1.08	2.60	1.11	2.42	1.13	1.48
Like to try new leisure	3.62	0.89	3.73	0.82	3.82	0.82	3.89	0.81	1.30
Very active leisure	3.38	0.93	3.38	0.81	3.47	0.86	3.61	0.88	1.55
Leisure does not excite	1.93	0.86	1.87	0.66	1.76	0.71	1.74	0.76	1.87
Do not have leisure skills	2.16	0.90	1.96	0.74	1.94	0.77	1.87	0.91	1.08
Always something to do	3.82	0.75	3.64	0.81	3.65	0.98	3.81	0.93	0.97
Overall leisure boredom	2.02	0.43	2.16	0.55	2.12	0.49	2.10	0.50	0.71

Note. Freshman (n = 45); Sophomore (n = 113); Junior (n = 139); Senior (n = 160).

*p < 0.003

Leisure Boredom and Activity Choice

Fifteen percent (*N* = 68) of the subjects chose active outdoor adventure activities, 27% (*N* = 120) chose active competitive team sports, 22% (*N* = 99) chose active individual sports, and 36% (*N* = 164) chose passive activities. Results from ANOVA procedures indicated no significant differences between overall leisure boredom and activity choice (Table 3). However, significant differences were found within three specific leisure boredom items. On the item, "Leisure time gets me aroused and going", the active outdoor group (*M* = 3.90, *SD* = 0.79) scored significantly higher than the passive activities (*M* = 3.46, *SD* = 0.79) group. The active outdoor group (*M* = 4.13, *SD* = 0.83) also scored significantly higher than the passive activities group (*M* = 3.65, *SD* = 0.80) on the item, "I like to try new leisure activities that I have never tried before" In addition, each of the three groups including outdoor (*M* = 3.69, *SD* = 0.87), team sports (*M* = 3.66, *SD* = 0.87), and individual spots (*M* = 3.68, *SD* = .87) scored significantly higher than the passive activities group (*M* = 3.17, *SD* = 0.77) on the item, "I am very active during my leisure time."

Table 3

Leisure Boredom and Activity Choice - Analysis of Variance

	Outdoor		Team		Individual		Passive		
	M	SD	M	SD	M	SD	M	SD	F
Leisure time drags	1.69	0.82	1.90	0.85	1.90	0.92	1.90	0.89	1.07
Highly involved	3.75	0.84	3.79	0.80	3.77	0.86	3.57	0.74	2.39
Leisure time is boring	1.57	0.74	1.72	0.83	1.70	0.83	1.77	0.82	0.99
Retire now, things to do	4.06	1.09	3.98	1.10	3.84	1.19	3.68	1.11	2.65
Spinning my wheels	2.13	0.93	2.20	0.86	2.09	0.88	2.28	0.84	1.13
Don't like leisure	1.82	0.79	1.92	0.89	1.76	0.73	1.96	0.87	1.35
Aroused and going	3.90	0.79	3.68	0.87	3.52	0.87	3.46	0.79	5.18*
Important to quality of life	4.41	0.74	4.14	0.77	4.08	0.83	4.05	0.80	3.50
Excited about leisure	4.51	0.70	4.26	0.77	4.26	0.74	4.18	0.77	3.25
Don't know what to do	2.38	0.99	2.53	0.96	2.41	0.85	2.61	1.00	1.34
Waste leisure time sleeping	2.56	1.07	2.56	1.08	2.23	1.08	2.65	1.17	3.01
Like to try new leisure	4.13	0.83	3.80	0.85	3.77	0.78	3.65	0.80	5.78*
Very active leisure	3.69	0.87	3.66	0.87	3.68	0.87	3.17	0.77	12.56*
Leisure does not excite	1.65	0.75	1.78	0.76	1.78	0.78	1.86	0.68	1.37
Do not have leisure skills	1.87	0.91	1.78	0.84	1.94	0.74	2.08	0.77	3.33
Always something to do	3.91	0.89	3.63	0.99	3.80	0.87	3.63	0.88	2.16
Overall leisure boredom	2.01	0.50	2.07	0.51	2.17	0.55	2.15	0.47	1.84

Note. Outdoor (n = 68); Competitive (n = 120); Individual (n = 99); Passive (n = 164).

*p < 0.003

Discussion

The results of this study specified no significant differences between overall leisure boredom and gender, level of education, and activity choice. However, further data analysis indicated significant differences between specific items of leisure boredom and each of the independent variables.

The findings of no significant differences between overall leisure boredom and gender support previous research by Weissinger et al. (1992) and Weissinger (1995). Further analyses of the data indicated significant differences between groups on specific items regarding gender. Males were more likely to agree that they would have plenty of exciting things to do if they could retire now with a comfortable income. Males were also more likely than females to agree that they became highly involved in what they did during their leisure time and that they were very active during their leisure time. These findings may be explained by the differences in the types of activities that males and females participated in. Active competitive team sports was selected as the preferred leisure activity by 69% males (*N* = 84) and 31% females (*N* = 37). Passive activities were selected as the preferred leisure activity by 78% females (*N* = 130) and 22% males (*N* = 36). These findings agree with Beggs et al. (2005) results that females are more likely to participate in non-active recreational sports. In addition, females were more likely to agree that they did not have many leisure skills. Shaw, Caldwell, and Kleiber (1996) indicated that adolescent females may participate in some leisure activities to please others rather than themselves. At times, especially during the developmental adolescent period, females may be participating for different reasons than males and this could contribute to their lack of development of leisure skills and feelings of leisure boredom. Future research is suggested to support this statement. The findings concerning gender suggest that females may be more affected by certain facets of leisure boredom than males.

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Comment [RC29]: The lead paragraph outlines the major findings that will be discussed. The discussion, then, looks at the significance, implications, and limitations.

Comment [R30]: The details of the findings are further explained in more detail. However, only pertinent findings are discussed. The entire study is not discussed exhaustively. So, in your discussion sections, figure out first which findings have the greatest relevance and discuss those in detail, also explaining why you potentially got those results, supporting this analysis with other studies. Notice that in the discussion the study's findings are compared with previous studies.

Comment [R31]: Notice that here the researchers are attempting to analyze why they have found the findings they did.

Comment [R32]: Again the researchers are bringing in other studies to support their findings.

Comment [R33]: Here the researchers are bringing in other studies to not only support their study's findings but also further explain them. This is a great example of how to use findings from other studies to analyze the findings of your own study in the discussion, even if you are doing quantitative research.

Comment [R34]: Notice that the researchers here are suggesting possible avenues for future research on the topic of leisure time.

Comment [RC35]: In this and subsequent significance paragraphs, the researchers are using previous research to support what they found. This use of text-based, past research to validate their own findings helps corroborate their claims.

The results of this study also indicated no significant differences between overall leisure boredom and level of education. This supports the findings of Weissinger (1995). However, some significant differences existed between groups on specific LBS items and level of education. Seniors were more likely than freshmen to agree that they became involved in what they do during leisure and that if they could retire now with a comfortable income, they would have plenty of exciting things to do. These differences may be explained because seniors have furthered the formation of their leisure time behavior patterns by experiencing the college environment. Gitelson and Thomason (1992) determined that the college years are a time of expanding freedoms and focusing interests and Cheng et al. (2004) determined that the time spent in college allows for the development of leisure behavior patterns. Therefore, seniors are more likely than freshmen to have established their patterns of leisure behavior. These specific differences could also be accounted for based on differences in awareness of perceptually available leisure opportunities between seniors and freshmen. The greater the level of awareness, the less likely a student is to experience boredom (Iso-Ahola & Weissinger, 1987).

No significant differences were found between overall leisure boredom and leisure activity choice. However, there were significant differences between groups on specific leisure boredom items and activity choice. Subjects who chose outdoor adventure activities were more likely to agree that they became aroused during their leisure and liked to try more new types of leisure than the subjects who chose passive activities. Previous research has shown that participants involved in high-risk adventure activities are more likely to be sensation seekers than those who participate in other types of activities (Breivik, 1995; Kajtna, 2004). Sensation seekers have been defined as seeking immediate gratification, thrills, and impulsivity (Wood & Cochran, 1995). This study supports previous research that has indicated that sensation seekers become involved in more new activities than nonsensation seekers and become greatly aroused during participation (Iso-Ahola & Crowley, 1991; Rowland, Franken, & Harrison, 1986). Another finding related to activity choice was that subjects who chose passive leisure activities were less likely to agree that they were very active in their leisure than the other three groups. Of the four groups, the activities provided for the passive group are the least vigorous in terms of physical activity. This finding suggests that those pursuing passive leisure activities are the least physically active of the college students in this study.

The findings of this study have implications for leisure service providers in a university setting. University programs concerned with student life and campus recreation need to offer a wide range of programs and activities that cater to males and females of all levels of education in active competitive team sports, active competitive individual sports, outdoor adventure, and passive leisure to meet different leisure aspirations. By providing a wide array of programs, participants will be more likely to find activities that reduce the opportunity for leisure boredom. In addition, by being aware of activity differences based on gender, providers will be able to develop programs that meet the leisure needs of males and females.

Additional research regarding leisure boredom is necessary. Future research should continue to address both leisure boredom and activity choice. Few studies have been conducted concerning leisure activity choice (Barefoot, Strickland, & Housch, 1981; Gratton & Taylor, 1986). In addition, further research should be conducted to explore differences in selection of leisure activities by gender. In this study, the activities selected by males and

Comment [R36]: Here again there is more analysis of why the researchers may have gotten these results. However, notice the use of the word "may" that indicates a certain degree of uncertainty. The researchers are theorizing about the reasons for these findings but they don't know for sure.

Comment [R37]: Here again the researchers bring in other studies to offer further support for their analysis.

Comment [RC38]: After dealing with the significance of the findings, the researchers now cover the implications—what do these findings mean in real life, outside of the study? How can the findings from this study help real people – not just other researchers? In this case, the findings from this study could help leisure service providers in universities.

Comment [RC39]: The report finishes with limitations and suggestions for future research. The reason there are limitations is that the researchers are indicating that they did not study X, Y, and Z, and that future studies should look at X, Y, and Z. No study is ever perfect. Also, no study can absolutely cover everything. As a result, there is always room for further study. Indicating the places left open for future study is important since all research builds on each other. So, indications of future research tells other researchers where they can pick up where this study left off.

females were different. The passive activities group had many more females than males and the active competitive team sports group had many more males than females. The results of this study found that females were more likely to participate in passive activities and more likely to be bored with aspects of their leisure. To further understand these differences between males and females, other instruments or methods could be used that examine leisure boredom differently. By understanding the activity choices and leisure boredom of males and females, researchers may be able to determine the links between gender, activity choice, and leisure behavior.

The college years are an important developmental period for students. During this period, lifetime leisure pursuits are often determined. By providing a wide range of quality leisure opportunities, leisure service providers in the college setting can meet the needs of students and play a positive role in their developmental process.

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Scholarly Example Reading Questions

Writing Strategies
1. Abstract
   a. What is the purpose of the abstract for academic readers?
   b. While thinking about the purpose of the abstract, what do you think is the most important part of the abstract? Why?
   c. What do you think is the least important part of the abstract? Why?
   d. What is the most detailed part of the abstract? Why?
   e. What is the least detailed part of the abstract? Why?
2. Introduction/Background. The purpose of the literature review or background is to create context for your research. It establishes what research related to your own has been published in the past. However, most importantly, the literature review is also an argument. By establishing what has been published in the past, the literature review also gives you room as the writer to argue for ways in which your own research is new, original, and badly needed. Arguing for how your research is new is also called creating a research gap.
   a. What is the research gap(s)?
   b. Why is it important in writing and then publishing your research to establish a research gap?
   c. Does the study have a hypothesis? Why or why not?
3. Methods
   a. Why is including a methods section important to academic readers?
   b. What are important things to mention in a methods section? Why?
   c. Based on the method section, what would you say the study design and method is?

4. Results
    a. How important is the first sentence in the results section?
    b. Why do the tables of data appear in this section?
    c. A number of abbreviations appear in the results section (e.g. N, n, M, SD). What do they stand for?
    d. Sub-headings appear in the results section. Why are headings important in showcasing certain data?
5. Discussion
    a. The discussion argues for the significance, implications, and limitations of the research. In other words, the discussion very clearly answers the question "So what?" Why is it important for academic readers to see the significance of the research at the very end of the article?
    b. How important is the first paragraph of the discussion section? Does it confirm what the first paragraph in the results section says?
    c. Why are additional sources introduced in the discussion section? How were sources used to interpret the data? Was the data interpreted effectively? Why or why not?
    d. Why is including the limitations of a study important to academic readers? What were some other potential limitations for this study that were not mentioned?

Students as Scholars

Gabriel Goodman, a psychology major, wrote this paper in 2011 about the furry subculture. He was interested in why furry subculture was more sexualized than other subcultures, so he designed a survey (included here) to better understand attitudes about the subculture.

Reported Opinions toward Characteristics of the Furry Fandom

Gabriel Goodman
University of Denver

Abstract

The study examined which characteristics of the furry fandom participants believed were strange to them. Forty-one undergraduate students were given surveys tasking them to agree or disagree on a 5-point Likert scale with statements regarding activities of the furry fandom. Participants were expected to think activities involving sexual pleasure or costumes were the strangest. This hypothesis was supported by the results. Four survey items which included costumes, sexual fantasizing, pornography, and sexual intercourse were, on average, rated as stranger than art- or community-based activities. The results imply the furry fandom's main characteristics, its members' distinct interest in anthropomorphic animals and artistic activities, are not seen as abnormal as its less practiced activities involving sex or fursuits. The study also provides evidence explaining why popular media focuses on these two activities.

As with most other fan-based subcultures, the scientific community has paid little attention to the furry fandom. According to many users on a popular forum for "furries," *Fur Affinity Forums* (n.d.), there should be an absence of scientific literature. To these users, the fandom represents a widely-enjoyed hobby, not a community of specimens requiring study. On the *Fur Affinity Forums* (n.d.), users poke fun at amateur researchers who enter the forums to disperse surveys studying the culture.

Although some members of the subculture consider the furry fandom a lifestyle (and are consequently called "furry lifestylers"), the majority of furries consider it more as a hobby. Members identify with the furry fandom for a wide variety of reasons, such as to adopt a new lifestyle or a spiritual connection, but a distinct interest in anthropomorphic animals defines the subculture. The subculture is also artistically-driven, with many members using anthropomorphic animals in their drawings, creative writing, and costume designing. Some members buy, design, or wear "fursuits," which are mascot-like costumes which often represent an individual's "fursona." The fursona is a furry's animal identity in the fandom, although not all members have one. Finally, for some furries, the subculture also offers an

outlet for sexual pleasure by way of finding others who share the same sexual interests (*Wikifur*, n.d.).

Unlike the scientific community, pop culture has focused greatly on the unique nature of the subculture for entertainment purposes, often highlighting the sexual aspect of the subculture. In an episode of *CSI* (2003), "Fur and Loathing," furries were featured interacting in "furpiles," or sexual orgies performed in fursuits. In her book about subcultures, Shari Caudron (2006) wrote about a furry convention and described the unnaturally affectionate personalities of the furries and an area of the convention which featured anthropomorphic porn. An article published in *Vanity Fair*, written by George Gurley (2001), emphasized the sexual nature of furries, explaining how orgies are average occurrences at conventions and how many furries are sexually interested in stuffed animals. The article also established several stereotypes about furries, including how most furries are gay, hold computer- or science-related jobs, and are predominantly male (Gurley 2001).

Largely due to the exposure the fandom received from the media, Gerbasi et al. (2008) conducted a study on furries to examine the validity of such stereotypes presented by Gurley. By surveying furries attending a furry convention, Gerbasi provided evidence disproving the stereotypes set by Gurley. Additionally, her study supplied statistics showing the majority of the participants expressed no interest in becoming 0% human (Gerbasi et al., 2008).

No other studies have been conducted on the furry fandom, but the subculture still receives negative attention from the media. The research question of the current study asked why there was such a fixation on the subculture. To narrow the research spectrum, the current study questioned which aspects of the furry fandom appeared strange to the public and thus garnered attention.

Because the media often show furries engaging in sexual activities or wearing fursuits, it was predicted the majority of the participants from the current study would believe the fandom's activities which included sexual pleasure or costumes were the most strange. All other activities, such as drawing or creating stories based on anthropomorphic characters, would be seen as normal.

Method

Participants

Forty-one undergraduate students from a small private university volunteered to take part in the study. Undergraduate students were chosen as the sample population because they were expected to be more aware of current pop culture than other generations.

Materials

A survey specifically made for the study was used. The survey, Opinions on Subculture Characteristics, included twelve items asking the participants' opinions toward various aspects of the furry fandom (see Appendix). Each item listed a statement such as, "It is strange to compose music with themes from a subculture," and featured five responses from which participants could respond. The responses formed a 5-point Likert scale, with 1 meaning "Strongly Disagree" to 5 meaning "Strongly Agree." None of the survey items directly cited the furry fandom, but each one introduced an activity connected with the subculture.

The second part of the survey offered ten different fan-based subcultures and asked participants to check each subculture of which they had heard. The other subcultures were chosen randomly from a list of fan subcultures.

Procedure

The survey was posted online. Forty-five students, chosen through a convenience sample, were invited to take part in the survey through a secured link. Participants had two days to complete the survey, after which the survey was closed. A paragraph at the beginning of the survey explained that students were giving their consent by completing the survey, and forty-one of the 45 students took the survey before it closed. The university's Institutional Review Board approved of the procedure.

Results

Descriptive Analysis

A mean for each survey item was calculated. A higher mean signified that participants thought the activity featured in the item was stranger than an activity that received a lower mean. Individual means and standard deviations for each survey item can be found in Table 1.

Table 1

Average Response to Survey Items

Survey Item	Mean (Standard Deviation)
1. It is strange to spend time with other members of the same subculture.	1.54 (0.60)
2. It is strange to draw pictures or produce other art pieces depicting people or aspects of the subculture.	2.10 (0.84)
3. It is strange to wear costumes related to the subculture out in public during days other than holidays.	3.51 (1.20)
4. It is strange to sexually fantasize about themes related to the subculture.	3.575 (1.58)
5. It is strange to compose music with themes from the subculture.	2.25 (1.06)
6. It is strange to participate in an online forum hosted by the subculture.	2.10 (1.19)
7. It is strange to enjoy pornographic images or videos of the subculture.	4.00 (1.13)
8. It is strange to watch videos or read books produced by or related to the subculture.	1.83 (0.60)
9. It is strange to write stories or poetry about the subculture.	2.05 (1.00)
10. It is strange to engage in sexual activities while in costumes related to the subculture.	4.07 (1.18)

11. It is strange to attend conventions hosted by the subculture.	2.53 (1.10)
12. It is strange to buy clothing featuring themes related to the subculture.	2.07 (1.21)

Figure 1 shows the results of the second section of the survey. Each bar represents how many participants responded to having heard of each subculture. Only four of the subcultures are represented because only one or two participants reported not having heard of the other six subcultures. The furry fandom was the third least known group with approximately 75% of the participants (*n*= 31) reporting having known of the subculture.

Percentage of Participants who Reported Knowing of the Subculture
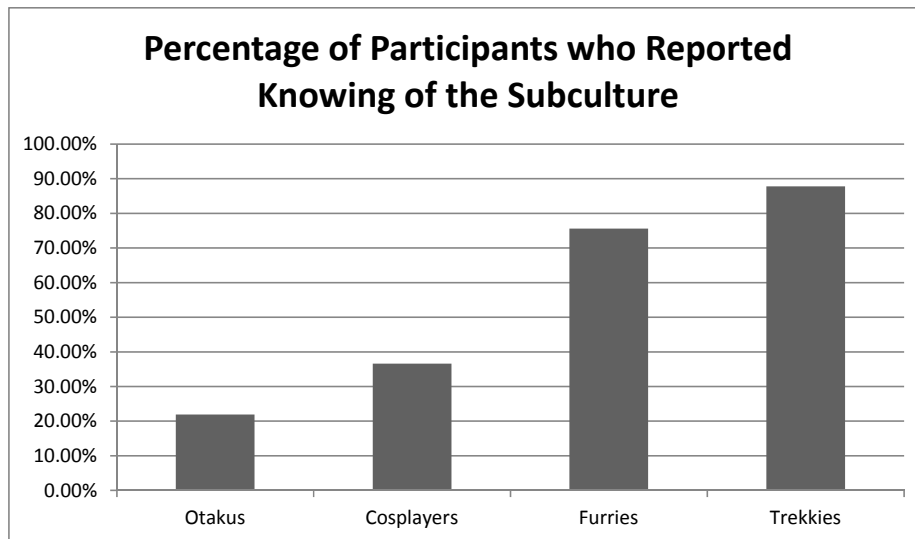
Figure 1. Reported Knowledge of Subcultures

Inferential Analysis

An alpha level of .05 was set before the study was started. To measure if the mean scores of the survey were significantly different from each other, a one-way ANOVA test was conducted. The number of the survey item acted as the independent variable, with each individual item used as a level of the independent variable. Results from this test indicated there was a significant difference among the survey answer responses, F (11)= 30.56, p < .05.

Four of the response means were over 3.5, and the rest of the response means were under 2.6. To test if these four response means were significantly larger than the rest, the largest of the smaller means and the smallest of the larger means were run through a one-tailed t-test. Again, the difference between the two means was significant, p < .05. From this result, it can be inferred the other three larger response means were significantly larger than the eight smaller response means.

The four survey items which received significantly higher answers were items 3, 4, 7, and 10. All of these questions included activities in the fandom that were sexual or related to costumes (see Appendix for exact questions). Thus, the hypothesis was supported.

Discussion

The current study examined which aspects of the furry fandom the participants believed were abnormal. It was predicted participants would rate items relating to sexual activities or costumes the strangest. This hypothesis was supported by the results which showed the sex- or costume-related items received, on average, higher response means than the other questions. The item which stated, "It is strange to engage in sexual activities while in costumes related to the subculture," received the highest response mean. This item included both sexual themes and costumes. Item 3, which stated, "It is strange to wear costumes related to the subculture out in public during days other than holidays," also had a significantly higher mean than the eight non-sexual, non-costume-related items but had a lower mean than the three sexually-related questions. Although the survey items did not specifically cite the furry fandom as the main subculture of the study, the results offered evidence that the subculture is viewed negatively due to its sexual connections and use of fursuits.

These results fit with the representations of furries presented by popular media. The Gurley article (2001) focused on describing the furries' covert sexual activities and their elaborate costumes. The *CSI* episode (2003) also highlighted "furpiles" and analyzed the materials used in the fursuit. Caudron (2006) also devoted significant description to the level of detail put in fursuits and the prevalence of anthropomorphic pornography at the furry convention.

The results of the study can potentially explain the furry fandom's poor image in the media. Because eight of the survey items produced response means lower than 3, this implies the majority of the participants did not believe most of the aspects of the furry fandom—such as their artistic and community activities—were strange.   In contrast, participants on average thought activities including sexual themes or costumes were strange. Consequently, it can be inferred that the furry fandom is seen abnormal not because of its general interest in anthropomorphic animals or art but its inclusion of sexual interests and fursuits. A majority of the participants also reported to having heard of the furry fandom, which implies they are familiar with the subculture's media representation, thus adding validity to the study.

However, the current study had significant limitations. One limitation was the sample. Participants were selected based on convenience, and many had some knowledge of the study's purpose prior to taking the survey. Because of this, it is possible a greater ratio of participants in the current study were aware of furries than would participants from a random sample of the university population. Additionally, some participants may have answered the questions with furries specifically in mind, threatening the internal validity of the study. Another limitation is the reliability and validity of the survey. Before the study, the survey was tested for neither reliability nor validity, and the results of the current study consequently lacked power. Before the current study can be replicated, the survey must be revised to strengthen the power of its results.

After a reliable and valid survey is finalized, future studies on the furry fandom would benefit from repeating the current study to ensure the current results were valid. Once a set of results can be safely accepted, the next possible step would be to repeat the study but with the purpose of the study revealed to the participants. Showing "typical" examples of each activity from the furry fandom could also help familiarize participants with the fandom. Participants then could supply informed answers about how strange they saw different aspects of the furry fandom.

The current study provided evidence implying the furry fandom is seen as strange for its sexually-related practices and use of fursuits. The main aspect of the fandom, the interest in anthropomorphic animals and related art, is comparatively seen not as abnormal. More research can potentially discover methods to introduce the furry fandom and other subcultures to the public in an educative manner which respect the main characteristics of the subcultures and combat false stereotypes.

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Appendix

Opinions on Subculture Characteristics

By completing the following questions, you are also granting consent for this information to be used as part of a research exercise that I am completing for my WRIT class at the University of Denver. Your participation is completely voluntary. The information you provide may be used in a class project. While profile information may be included in my writing project (i.e. your age, gender, class standing, etc.), your name will NOT be used. If at any time you do not want to answer a question, you do not have to.

Age: _____
Gender: _____

Part 1: Each of the following statements relates to a different characteristic of a fan subculture. Fan subcultures are communities or groups defined by a unified interest in some pop culture phenomenon. For each statement, circle the response which best describes how strange each characteristic seems to you.

1) It is strange to spend time with other members of the same subculture.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree/Disagree	Agree	Strongly Agree

2) It is strange to draw pictures or produce other art pieces depicting people or aspects of the subculture.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree/Disagree	Agree	Strongly Agree

3) It is strange to wear costumes related to the subculture out in public during days other than holidays.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree/Disagree	Agree	Strongly Agree

4) It is strange to sexually fantasize about themes related to the subculture.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree/Disagree	Agree	Strongly Agree

5) It is strange to compose music with themes from the subculture.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree/Disagree	Agree	Strongly Agree

6) It is strange to participate in an online forum hosted by the subculture.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree/Disagree	Agree	Strongly Agree

7) It is strange to enjoy pornographic images or videos of the subculture.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree/Disagree	Agree	Strongly Agree

8) It is strange to watch videos or read books produced by or related to the subculture.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree/Disagree	Agree	Strongly Agree

9) It is strange to write stories or poetry about the subculture.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree/Disagree	Agree	Strongly Agree

10) It is strange to engage in sexual activities while in costumes related to the subculture.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree/Disagree	Agree	Strongly Agree

11) It is strange to attend conventions hosted by the subculture.

1	2	3	4	5

| Strongly Disagree | Disagree | Neither Agree/Disagree | Agree | Strongly Agree |

12) It is strange to buy clothing featuring themes related to the subculture.

| 1 | 2 | 3 | 4 | 5 |
| Strongly Disagree | Disagree | Neither Agree/Disagree | Agree | Strongly Agree |

Part 2: For the following item, check all the subcultures of which you have heard:

___ Punks
___ Bodybuilders
___ Goths
___ Hipsters
___ Cosplayers
___ Furries
___ Otakus
___ Trekkies
___ Skaters
___ Emos

Students as Scholars Reading Questions

1. As we have shown in the scholarly example, annotate (describe what the author is doing and how) the article.
2. As a student piece, you might recognize that the actual audience for this research is the teacher. Who do you think is the intended audience?
3. What is the research question and the hypothesis?
4. What is the study design and method? Was it an effective design/method for the Research Question?
5. The researcher used an online survey tool to collect their results. What are the benefits and drawbacks of using this tool to conduct surveys?
6. Was the method section effective? Why or why not?
7. The researcher indicates the results of all the survey questions in the results section. Was their presentation of this data effective? In what ways could it have been improved?
8. In the discussion section, the researcher clearly describes the implications, significance, and limitations of the study. Based on what you have read here, can you imagine some further implications and limitations to this study? What would they be?
9. Considering the limitations and those you have generated yourself, if you were going to conduct a new study, what would be the major ways that it would be different?

Popular/Public Example

"Survey Shows New Media Can Be Compatible with Old" appeared in *Billboard* magazine in 1998. *Billboard* began in 1894 as a professional trade publication for people posting signs about popular entertainment such as Buffalo Bill Cody's Wild West Show. It wasn't until the 1930s that the magazine began focusing more on music and musical entertainment. Today, *Billboard's* audience is both popular and professional—it has features on popular artists such as Beyonce and Bruno Mars, but it also has industry news for music professionals including producers, artists, and executives. You may be familiar with *Billboard's* Hot 100 and Top 200 charts that keep track of music sales. Don Jeffrey was a senior writer at the magazine when this appeared and later became one of *Billboard's* managing editors.

Survey Shows New Media Can Be Compatible with Old

Don Jeffrey
Billboard

NESTLED in their home fortresses, kids and teens are increasingly likely to be simultaneously listening to a CD, playing a video game, watching television, and keeping an eye on the Internet. This confluent use of media may have profound implications for the home entertainment industry of the future.

> **Comment [RC40]:** The first part of a news article is called a lead. It is designed to hook a reader's attention with some interesting, surprising, or well-written idea. Jeffrey uses the image of kids hiding inside their bedrooms, surrounded by media.

That's one conclusion drawn from recent research unveiled by MTV Networks. The cable programmer—whose channels include MTV, VH1, Nickelodeon, and M2—commissioned a study to find out what people are doing in their leisure time, and executives say they were surprised by the findings.

> **Comment [RC41]:** Besides hooking a reader's attention, a lead also answers the journalistic questions who, what, where, when, and how. Here, the author answers the who and when, and then follows in the next paragraph with the how.

The survey, conducted by Audits & Surveys Worldwide from November 1997 to February 1998, sampled 8,000 people, 4,000 of whom filled out time-usage diaries that tracked their daily activities.

To make sure the survey included enough kids and teens, who make up a large share of MTV and Nickelodeon viewers, Audits & Surveys at first over-sampled the younger demographics. The sample then was "rebalanced" so that its demographics match those of Nielsen's studies. But the researchers say the concentration of multichannel [cable, satellite TV] and computer households is "slightly higher" than the norm.

Betsy Frank, executive VP of research and development for MTV Networks, says the programmer was seeking "a snapshot of how people are using all the media and entertainment forms and vehicles available to them, and what, if any, trade-offs they are making."

The "big idea" from the research, she says, is that contrary to common opinion, "new media are co-existing with, rather than cannibalizing, the old."

> **Comment [RC42]:** Before the half-point, another feature of news writing is the nut graf. It is the "point" of the story. Here, the nut graf is just a quote by Betsy Frank. The nut graf is then further supported in subsequent paragraphs; in this case, Frank interprets the major findings of the study data.

She relates this to assumptions held during the early days of MTV. "Some were predicting that MTV would kill, or at least weaken, radio. But consumers who wanted their MTV wanted their radio, too, and the radio business today is stronger than ever."

For instance, the survey shows that 32.6% of all teens aged 12-17 are heavy radio listeners, vs. 36% who are heavy cable users and radio listeners. This indicates that heavy cable users are 10% more likely than the average teen to be big radio fans.

MTV and VH1 viewers are "highly music involved," says Frank. Besides listening heavily to radio, they are more likely than the average person to spend money on CDs and tapes (see accompanying chart), own their own stereo equipment, belong to music clubs, and go online.

Similarly, the researchers find that people who go to the movies a lot are also heavy renters and buyers of videos and viewers of films on cable TV. And Net surfers are also more likely to be book readers than the average consumer.

"A medium never really disappears," says Frank. "Consumers integrate it into their lives in meaningful ways."

She adds that people are "finding new ways of using media." Using them simultaneously, for one thing.

Teenagers' rooms, she says, are often "fortresses, with a TV, a PC, a stereo, and a phone." (Another survey shows that of the 12- to 17-year-olds who have their own rooms, two-thirds have a TV in it.)

> **Comment [RC43]:** Towards the end of news stories, you will notice what are called kickers. These can be resolutions to surprises presented earlier, repeated ideas, or ideas to leave the reader thinking. In this and the next paragraph, the author quotes Frank who talked about fortresses and convergence—the same images the author used to begin his article.

A popular term used to describe the future of home media and entertainment is "convergence." This could mean, for instance, that your TV, computer, radio, and telephone will be operating out of the same box. With the simultaneous use of media, Frank says, "for kids and teens, the convergence of behavior is already here."

Another conclusion MTV draws from the research is the importance of the brand name. "It points very strongly to the need for brand building," says Frank. "People are a lot more places than before, accessing a lot more media. Brands help people navigate through the complexity."

The next part of the work is to "assimilate data" from the international part of the study—in Germany, Italy, and the U.K. "We'll look at how the overall media are similar and different and how our brands are perceived in other parts of the world," says Frank.

MTV plans to reprise the study later this year, using the same methodology and sample. "We'll see how much it's changed," says Frank. "If it's a great deal, we'll do it semiannually. We see the study as a benchmark."

Popular/Public Reading Questions

1. *Billboard* is marketed as a magazine for industry professionals, but it is available for more public audiences as well in supermarkets and bookstores. Who do you think this specific article is targeted at? What evidence confirms this audience?
2. At first glance, the article is reporting quantitative data supported by Betsy Frank's interpretation of that data. Considering its audience, what do you think is the primary purpose or argument of this report?
3. MTV Networks hired a company called Audits & Surveys Worldwide to conduct this research. Why do you think they did this?
4. Based on what is presented here, what do you think their research design was? What was their method? Do you think the description of the method is extensive enough for you to conduct your own study on the topic? Why or why not?
5. The article includes extensive interpretation by Betsy Frank. Why do you think she was quoted so extensively rather than just paraphrased? Why were her comments included at all?

6. This survey is old. Do you think the findings would still be true today? Why or why not?
7. Imagine you were an employee of Audits & Surveys Worldwide today. If you were to conduct your own version of this study, what would be your research question and your hypothesis? Write a detailed methodology given what you know of quantitative research.

Quantitative Cases

A. Using Data – The General Social Survey

The General Social Survey is a research project that has collected data about social attitudes, behaviors, and beliefs of the United States population since 1972. The data is collected from a survey instrument administered through face-to-face interviews by the National Opinion Research Center at the University of Chicago. It is a descriptive study that currently has over 50,000 responses and has tracked 5,000 variables. It is a source rich in aggregate, quantitative data that can be used to both formulate new research questions and bolster current research projects. All of the data can be accessed via the web https://gssdataexplorer.norc.org/ and is sorted by time, topic, and question. As you might imagine, 5,000 variables and 50,000 responses is an immense amount of data, so before you begin working with it, you should visit the website, familiarize yourself with the interface, and browse some of the categories to get a better sense of what is available. If using the data management functions is difficult, you can also download the most current codebook with the data organized by question (it is over 2,000 pages long): http://gss.norc.org/documents/codebook/GSS_Codebook.pdf. Before looking at some of the data, we are going to go over some information about the GSS.

The first point to recognize is that not every question was asked every year. When looking at the data, even though there are over 50,000 responses collected, certain questions were only asked during one year's survey of the hundred or couple of thousand respondents asked that year. Read the numbers carefully. A NAP (Not Applicable) or NA (Not Answered) response means that there is no data from those listed next to that code. A DK means the participant Didn't Know.

Another issue is that the data management tool that you use on the website has aggregate data for all years the survey was administered if sorted by question/topic. A question like, "Should a self-identified communist be allowed to teach at a university?" has a greater variety of responses throughout the 30 years of the survey. The data says that 47.7% said he/she should be fired, but this includes data from the 1970s and 80s when communism was a more pressing social issue—in 2006 alone, only 37% thought such a person should be fired.

The first case involves a question about people's attitudes and beliefs about science. Question 1073 specifically asks respondents their opinion on how scientific a field of study is (see figure 8.5). They ask about sociology, physics, history, accounting, biology, economics, medicine and engineering. You will note in figure x, we have included responses to four of these: sociology, history, medicine, and engineering. The question was only asked in the most recent survey in 2006, so you don't have to be concerned with past opinions on this particular question. The actual protocol is included in this data, such as Hand Card B20. Also note the VAR: HISTSCI or VAR: MEDSCI—this is just the code researchers use to track the question variable, so they don't have to write it out every time. If using SPSS, Excel, or a database, these codes are much easier to sort by.

1. Look over the data from Q1073 of the GSS. When working with quantitative data, you can ask new research questions of old data. In this case, because this is a descriptive study, the research question will be more general. Using the data from Q1073, create one or more new research questions. Although you might be tempted to ask *why* question, you don't have the evidence to respond to those questions. You are mainly asking *what* questions. Based on this new research question, what are some potential answers/hypotheses based on this data?
2. Using evidence from the survey, respond to the research question for two different purposes and audiences:
    a. Write a short news story or press release for a local print or web-based news source.
    b. Write an abstract of the data and your research question finding for an academic journal devoted to a topic or academic field of your choice.
3. Now that you have considered this old data, create a new research instrument and protocol for researching a related question to this data. Using the data from Q1073 in your literature review/introduction, create the methods and survey for a new study.

1073. Please look at Card B20. How scientific are each of the following fields? If you have not heard of a particular . field, just say you haven't heard of it

HAND
CARD B20

A.   Sociology. Is sociology very scientific, pretty scientific, not too scientific, or not scientific at all?

[VAR: SOCSCI]

RESPONSE	PUNCH	YEAR										COL. 4614	
		pre1983	1982B	1983-87	1987B	1988-91	1993-96	1998	2000	2002	2004	2006	ALL
Very scientific	1	0	0	0	0	0	0	0	0	0	0	167	167
Pretty scientific	2	0	0	0	0	0	0	0	0	0	0	736	736
Not too scientific	3	0	0	0	0	0	0	0	0	0	0	540	540
Not scientific at all	4	0	0	0	0	0	0	0	0	0	0	150	150
Haven't heard of it (VOLUNTEERED)	5	0	0	0	0	0	0	0	0	0	0	156	156
Don't Know	DK	0	0	0	0	0	0	0	0	0	0	110	110
Refused	REF	0	0	0	0	0	0	0	0	0	0	5	5
Not Applicable	BK	13626	354	7542	353	5907	7502	2832	2817	2765	2812	2646	49156

C.   History. Is history very scientific, pretty scientific, not too scientific, or not scientific at all?

[VAR: HISTSCI]

RESPONSE	PUNCH	YEAR										COL. 4616	
		pre1983	1982B	1983-87	1987B	1988-91	1993-96	1998	2000	2002	2004	2006	ALL
Very scientific	1	0	0	0	0	0	0	0	0	0	0	195	195
Pretty scientific	2	0	0	0	0	0	0	0	0	0	0	389	389
Not too scientific	3	0	0	0	0	0	0	0	0	0	0	676	676
Not scientific at all	4	0	0	0	0	0	0	0	0	0	0	539	539
Haven't heard of it (VOLUNTEERED)	5	0	0	0	0	0	0	0	0	0	0	6	6
Don't Know	DK	0	0	0	0	0	0	0	0	0	0	55	55
Refused	REF	0	0	0	0	0	0	0	0	0	0	4	4
Not Applicable	BK	13626	354	7542	353	5907	7502	2832	2817	2765	2812	2646	49156

G.   Medicine. Is medicine very scientific, pretty scientific, not too scientific, or not scientific at all?

[VAR: MEDSCI]

RESPONSE	PUNCH	YEAR										COL. 4620	
		pre1983	1982B	1983-87	1987B	1988-91	1993-96	1998	2000	2002	2004	2006	ALL
Very scientific	1	0	0	0	0	0	0	0	0	0	0	1495	1495
Pretty scientific	2	0	0	0	0	0	0	0	0	0	0	305	305
Not too scientific	3	0	0	0	0	0	0	0	0	0	0	24	24
Not scientific at all	4	0	0	0	0	0	0	0	0	0	0	5	5
Haven't heard of it (VOLUNTEERED)	5	0	0	0	0	0	0	0	0	0	0	1	1
Don't Know	DK	0	0	0	0	0	0	0	0	0	0	30	30
Refused	REF	0	0	0	0	0	0	0	0	0	0	4	4
Not Applicable	BK	13626	354	7542	353	5907	7502	2832	2817	2765	2812	2646	49156

H.   Engineering. Is engineering very scientific, pretty scientific, not too scientific, or not scientific at all?

[VAR: ENGNRSCI]

RESPONSE	PUNCH	YEAR										COL. 4621	
		pre1983	1982B	1983-87	1987B	1988-91	1993-96	1998	2000	2002	2004	2006	ALL
Very scientific	1	0	0	0	0	0	0	0	0	0	0	846	846
Pretty scientific	2	0	0	0	0	0	0	0	0	0	0	604	604
Not too scientific	3	0	0	0	0	0	0	0	0	0	0	210	210
Not scientific at all	4	0	0	0	0	0	0	0	0	0	0	125	125
Haven't heard of it (VOLUNTEERED)	5	0	0	0	0	0	0	0	0	0	0	8	8
Don't Know	DK	0	0	0	0	0	0	0	0	0	0	67	67
Refused	REF	0	0	0	0	0	0	0	0	0	0	4	4
Not Applicable	BK	13626	354	7542	353	5907	7502	2832	2817	2765	2812	2646	49156

Figure 8.5 Results for GSS Survey Q1073

Once you have worked with the GSS survey some more, consider investigating further questions using the data from the GSS. You might look at changes over time for those questions that have been asked in multiple years, or you might work with one or more questions to create a new study or protocol for investigating a topic further.

There are other quantitative datasets around the web, including data at the Roper Center for Public Opinion http://ropercenter.cornell.edu/polls/dataset-collections/ and the dataset used for Robert D. Putnam's book, *Bowling Alone* on community and social involvement, http://bowlingalone.com/?page_id=7

B. Analyzing Data

On the following pages there is a questionnaire research instrument and raw data from a survey conducted in 2007 at a private university. The instrument was designed around a research question that asked whether part-time work interfered with school work. The researchers primarily looked at the variables of work hours, study hours, GPA, and gender. Before working with this data, consider your own research questions.

About the Questionnaire
1. Question #5 on the questionnaire was only asked of those people who had a job. Do you think this is the best approach? Why or why not?
2. The researchers used ranges (e.g. 0-5, 5-10) for their work and study time responses. What are the advantages and disadvantages in doing such an approach for this study? In thinking about this question, consider the ease of completing the questionnaire by its audience, the precision of the results for the researchers, and the ease of which the researcher will be able to manipulate the data.
3. Based on the questionnaire, label the apparent independent and dependant variable or variables. What are some possible confounding variables?

About the data
1. Input the data into a spreadsheet or computer program for organizing numerical data. The first and often easiest way to look at general trends in data is sorting by variables. For example, sort by gender, or sort by GPA to see if there are any trends that might be interesting
2. Compute measures of central tendency for the quantitative data
   a. What is the mean and standard deviation for GPA for the two datasets?
   b. The researchers used ranges for hours worked and hours studied. These ranges aren't true quantitative data yet. Consider ways that you could make these ranges into quantitative data. What is gained and what is lost? How would you compute measures of central tendency with these ranges?
3. Based on the measures of central tendency, do you see any possible relationships between work hours, study hours, and GPA? How would compute a statistical relationship between these two variables?

Research Questionnaire

By completing the following questions, you are also granting consent for this information to be used as part of a research exercise that I am completing for my university writing class. Your participation is completely voluntary. The information you provide may be used in a class project, although your information will be anonymous.

1) What is your class standing? First-Year   Sophomore   Junior   Senior   Graduate
2) What is your gender?   Male   Female
3) Do you have a part-time job? (If no, skip to question #6)   Yes   No
4) How many hours per week do you work?   0-5   5-10   10-15   15+
5) Do you feel your job interferes with your academic success?   Yes   No
6) What is your GPA? _____
7) How many hours per week do you spend on school work and studying? 0-2   2-5   5-10   10+

Questionnaire Raw Data (N = 100)
Dataset #1: Those who indicated they did not have a part-time job (n = 51)

Class Standing	Gender	GPA	#Hrs Studying
First Year	Male	2.6	5-10
First Year	Male	2.6	5-10
Senior	Male	2.7	10+
First Year	Male	2.7	2-5
First Year	Male	2.93	10+
First Year	Male	3	10+
First Year	Male	3	0-2
First Year	Male	3	2-5
First Year	Female	3	5-10
First Year	Male	3.1	10+
First Year	Male	3.1	0-2
First Year	Male	3.14	5-10
First Year	Male	3.2	5-10
First Year	Male	3.27	2-5
First Year	Male	3.3	2-5
First Year	Male	3.3	5-10
First Year	Male	3.37	2-5
First Year	Male	3.47	5-10
First Year	Female	3.48	2-5
First Year	Female	3.5	2-5
First Year	Male	3.5	2-5
First Year	Male	3.5	2-5
Junior	Female	3.5	2-5
First Year	Female	3.5	5-10
Senior	Male	3.5	5-10
First Year	Male	3.55	10+
First Year	Male	3.6	2-5
First Year	Female	3.6	5-10
First Year	Male	3.6	5-10
Senior	Female	3.6	5-10
Sophomore	Female	3.64	10+
First Year	Male	3.65	5-10
First Year	Male	3.7	5-10
First Year	Female	3.81	5-10
First Year	Female	3.83	5-10
First Year	Male	3.83	5-10
First Year	Male	3.84	5-10
First Year	Male	3.845	5-10
First Year	Male	3.86	2-5

First Year	Female	3.9	10+
First Year	Male	3.9	10+
First Year	Male	3.9	10+
First Year	Female	3.9	5-10
Sophomore	Female	3.9	5-10
Sophomore	Female	3.92	10+
First Year	Female	3.93	2-5
First Year	Female	3.96	10+
First Year	Female	3.96	2-5
First Year	Male	3.96	2-5
First Year	Female	4	10+
Sophomore	Female	4	10+

Dataset #2: Those who indicated they had a part-time job (n = 49)

Class Standing	Gender	# Hrs Worked	Job interferes?	GPA	#Hrs Studying
First Year	Female	0-5	No	2.25	5-10
Senior	Male	5-10	No	2.81	2-5
First Year	Male	5-10	No	3.1	2-5
Sophomore	Male	5-10	Yes	3.3	10+
First Year	Male	5-10	Yes	3.35	10+
First Year	Male	5-10	Yes	3.4	10+
First Year	Female	5-10	Yes	3.48	5-10
First Year	Female	15+	No	3.5	10+
First Year	Male	0-5	No	3.5	2-5
First Year	Female	0-5	No	3.5	2-5
First Year	Female	5-10	No	3.5	5-10
First Year	Male	5-10	No	3.5	5-10
First Year	Male	15+	No	3.52	10+
First Year	Female	10-15	Yes	3.56	5-10
First Year	Female	15+	Yes	3.58	10+
Sophomore	Male	15+	No	3.6	2-5
First Year	Female	5-10	No	3.6	5-10
First Year	Male	10-15	No	3.63	5-10
First Year	Female	10-15	No	3.67	10+
Sophomore	Female	10-15	No	3.7	2-5
First Year	Female	10-15	No	3.7	5-10
Sophomore	Female	5-10	Yes	3.7	5-10
First Year	Male	5-10	No	3.7	5-10
Sophomore	Female	10-15	No	3.76	5-10
Graduate	Female	15+	No	3.78	5-10
First Year	Female	5-10	No	3.8	10+
First Year	Female	10-15	No	3.8	10+
First Year	Female	5-10	No	3.8	10+
Sophomore	Female	15+	Yes	3.8	10+
Sophomore	Female	5-10	Yes	3.8	2-5
First Year	Female	10-15	No	3.8	5-10
First Year	Male	5-10	No	3.8	5-10
Junior	Male	10-15	No	3.82	5-10
Junior	Male	10-15	No	3.82	5-10
First Year	Female	10-15	No	3.83	5-10
First Year	Male	10-15	No	3.87	5-10
Senior	Female	10-15	No	3.89	5-10
Sophomore	Male	10-15	No	3.9	10+
First Year	Male	5-10	No	3.9	10+
First Year	Male	5-10	No	3.9	2-5
First Year	Female	10-15	No	3.9	5-10
First Year	Male	15+	Yes	3.9	5-10
First Year	Male	15+	Yes	3.9	5-10
First Year	Male	5-10	No	3.91	2-5
Junior	Male	10-15	No	3.92	10+
First Year	Female	10-15	No	3.93	5-10
Junior	Female	15+	Yes	3.95	10+
First Year	Female	0-5	No	3.99	10+
First Year	Female	10-15	No	4	5-10

C. Making Data

In the previous two cases, you have seen data that has already been collected on a given topic with one or more research questions. When you are making your own data, you will have to spend more time in creating a research design and method that will help you answer your research questions.

1. Consider the preceding cases, the GSS views of science, and the relationship between work, studying and GPA. Based on these findings, how would you conduct your own study on either topic? Write out a new research question, create a questionnaire, and research protocol. You might consider carrying out your research protocol and write up a report of your findings following the IMRAD writing strategies listed in this chapter.
2. The previous two cases were primarily descriptive using a questionnaire method. Based on your sense of the research questions for either study, what are some possible other research designs and methods that could be used to test these research questions?
    a. Write up a research protocol for either the GSS or the work/study/GPA research reports using an inferential design.
    b. Write up a research protocol for either the GSS or the work/study/GPA research reports using observational or testing methods.

Quantitative Activities and Projects

Throughout this chapter, there have been a number of smaller activities or discussion topics that you might continue working on in developing your own quantitative project. What follows here are two large project ideas that incorporate a great deal of what this and other chapters have covered.

Survey project

Think for a moment about current issues at your college or in your community. How is the food selection on your campus? How much do people recycle? What form of transportation do people rely on the most? Pick something that interests you, and brainstorm one or more topics, issues, and research questions about them. After you have selected a topic, issue and research question, create a questionnaire or survey instrument that will help you answer that research question. Important things to keep in mind:

1. A good questionnaire collects demographic information first such as age and gender. You might also ask details important to your audience as well. For example, if writing about college students, major and GPA might be important and reveal some interesting trends. Do females recycle more than men? Are students with higher GPAs less likely to complain about the food on campus?
2. Asking yes or no questions usually neglects both freedom of response and a good source of data to make more sophisticated claims. For example, if asking about coffee

preferences, it is better to use a Likert scale to measure how much or little a person likes a particular type of coffee, and compare it to another Likert scale that measures perceptions of quality, taste, or value.

After you have handed out and compiled your survey data, write it up as an IMRAD report, using the IMRAD writing strategies discussed previously in this chapter. You should then revise this report as a press release for a local newspaper. This project can be helpful to complete in a group since it can take a lot of time and energy to complete. Also, you do not want to overwhelm your community with 20 or 30 separate surveys

The Writing Project

This is primarily a quantitative project with a number of steps that also use mixed methods research. The goal is to produce a final report that primarily relies on quantitative data, but as with any good research project, the process will require multiple research and rhetorical skills. The six steps here reflect a common research process, but recognize that research processes, like writing processes, will vary from person to person, experience to experience, context to context.

In a nutshell, what you will be doing is beginning to interrogate your own experiences with writing and coding those into a more generalizable and quantitative study of writing of those similar to or different from yourself. By following these steps, you will more fully understand your own writing habits and produce a larger study that will contribute to the research conversation on writing habits in general.

1. Literacy autobiography – Think for a moment about how and why you write the way you do. Reflecting on these qualitative questions is the first step. Write a short autobiography about your writing and reading processes. Where did you learn to write? What are the most important skills that you learned? What things do you think about when you are writing? How do you write?
2. Generating a research question – Working with one or more peers, compare your literacy autobiographies. What are some general similarities and differences? Did your peers focus on different issues of writing, for example, processes of writing or histories of writing instruction? You might also work with your teacher and begin compiling and categorizing these similarities, differences, and issues. Maybe one category is writing processes. What are some general trends in writing processes? A table with these categories might help you generate an issue to study further. Individually, begin generating research questions that could be studied quantitatively about one or more issues that might be interesting for an audience outside of the class you are in.
3. Annotated Bibliography – once you have selected an issue on the topic of writing studies, begin doing text-based research on that issue. Are you looking at writing instruction? Are you looking at writing processes? Are you looking at writing anxiety? Using your own experiences and the experiences of your peers, search for previous studies on the topic and generate an annotated bibliography using at least 5 sources.

Remember to write a summary for each source and why it might be relevant for your study.

4. Create a Protocol – remember that a research protocol is how you will go about studying your topic. Although there are many qualitative options, you have probably noticed by now that a lot of qualitative studies of writing already exist. We want you to add some quantitative data to the research conversation. Consider protocols that can be measured using numbers. For example, questionnaires using Likert scales, testing using interventions from the researcher such as differing writing prompts to participants, and observations counting behaviors of writers in action in the writing center or library. Remember that all of your research should abide by research ethics at all times. This includes obtaining permission for observations, informing participants how the information you are collecting will be used, and informing them that they are not obligated to complete any part or all of your study. See our chapter on Research Ethics for more information.

5. Write a review of the literature – once you have a draft of your protocol and an annotated bibliography, you can begin crafting an introduction to your study. As we discussed previously in this chapter, writing a literature review means that you are synthesizing past studies to create a gap in the research that your research question is attempting to fill.

6. Conduct your study and compose a research report of your findings – once your literature review draft is underway, conduct your study and write up your results in a style appropriate to your audience. This might be in IMRAD, in which case your literature review and protocol description can become your introduction and method sections. Or, your results might lead to a proposal or other professional document to change how writing is taught at some level. Your findings might become a poster presentation that you and your peers present to the campus community. You might work with your professor to create a rhetorical situation in which to share your research findings.

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Chapter 9
Mixed Method Research
What is Mixed Method Research?

Many decisions that we make are more complex than one research tradition can often account for. Take, for example, the data that went into selecting where you would go to college. You might have looked at brochures or websites, analyzing the images or bulleted lists of features of the school, looking at catalogs and course offerings, assembling texts about the college. You might also have asked students who have attended the university you wanted to go to, asking them about what they liked or didn't about the school, gathering qualitative data about the student experience at the school. Finally, you might have looked into SAT and GPA requirements, or even starting salaries of graduates, gathering quantitative data that would influence your decision and possibility to attend the university you wanted to attend.

Rigorous inquiry about complex questions often does not rely on only one type of data, but instead, uses research methods from multiple research traditions. As with the example of selecting a university to attend, these complex decisions entail collecting as much data using different research methods as possible, and this often requires looking at a topic from multiple perspectives.

Why Do Mixed Method Research?

Mixed method research uses research methods from two or more research traditions, giving researchers a fuller, more complex picture of their data than they would have using only one method. Mixed method research can also allow researchers to gain more meaningful perspectives from their data than if they had used a more limited approach. Mixed method approaches often give multiple answers to a research question. Sometimes these answers compliment and extend each other, but these multiple answers can also contradict one another so that researchers cannot have an overly simplistic analysis or view of their data.

The biggest benefit to mixed method research is the ability to triangulate data from several research traditions. (For more on triangulation using only qualitative research methods, refer to chapter 7, Qualitative Research.) **Triangulation** occurs when researchers use more than one research method to answer a research question or when researchers compare and contrast different data sets. For instance, a researcher may conduct a multiple choice survey using quantitative methods on one population. Then, if the researcher asked open-ended, qualitative interview questions of the same population, the researcher would be able to triangulate his or her data, comparing, contrasting, and ultimately synthesizing the survey and interview data in a meaningful way.

For example, an ice cream shop wants to create and sell a new flavor of ice cream that will be popular with the largest number of their customers. In creating this new ice cream, the shop owners need to find out which flavors of ice cream are currently the most popular with customers. They decide to use mixed methods, asking both qualitative and quantitative survey questions, and then triangulate their data to get the fullest possible picture of what ice cream people enjoy the most so that they can synthesize this data in creating the ultimate ice cream flavor. To conduct mixed method research, they first distribute a survey with multiple choice questions about all of their current flavors of ice cream, asking customers to rate their top ten favorites. The information the ice cream creators get with this survey will be completely **quantitative**—consisting only of numerical data. With this quantitative data, the ice cream creators can statistically determine which ice cream flavors are the most popular. However, the ice cream creators also want to know *why* customers prefer certain flavors over others. This information will help them figure out how to create a new ice cream flavor that the greatest number of people will enjoy. They interview many customers from around the country, asking them the reasons they enjoy their top 10 flavors. The information they receive from the interviews is **qualitative**—it is purely descriptive. Before the interviews, the ice cream creators do not know what a customer's response will be, and one response could be completely unique and different from anyone else's response. However, by asking questions open, qualitative questions that could have any response, the ice cream creators can discover reasons why people like their flavors that they had never expected. Finally, the ice cream creators triangulate their quantitative survey data and their qualitative interview data. They find the most popular ice cream flavor from the survey data but then they use the interview data to design a new flavor that still has all the features of the most popular ice cream flavor that customers brought up in the interviews.

Most research uses methods from multiple traditions to a certain degree. Qualitative research often relies on the interpretive methods used in text-based research to analyze field data. In this way, qualitative researchers use their data as a type of text to be interpreted using other texts. Quantitative research also uses interpretive methods from text-based research. For example, all research builds upon each other. All researchers rely on methods and findings from previous research in order to conduct and, often, interpret their data. So, in this limited way, most research relies on some of the interpretive strategies used within text-based research.

Who Does Mixed Method Research?

Education relies quite heavily on research from multiple traditions. Learning is a complex process, so multiple research traditions are employed to help educators gain a fuller picture of how students learn. For instance, think of your college or university application. Most schools want your GPA and SAT scores, which are numerical, quantitative measurements used to predict how well students will do in school. Of course, these scores are not the only predictors of how well you will do in your classes. Other factors such as your hobbies and extracurricular activities will play a part in this as well. Your commitment and dedication to your school work

will also play a role. To determine these other factors, most schools rely on an interview or an admissions essay to tell them qualitatively more about who their prospective students are and what they are capable of.

Business also uses many types of research methods. For instance, as in the ice cream example above, businesses will often conduct multiple choice surveys to tell them quantitatively what products customers prefer. However, they will also conduct interviews or distribute surveys with open-ended questions to qualitatively tell them why customers make the choices they do. Analysts might also conduct observations of a business to tell them more about the culture of that business, such as the management culture within a particular store.

Political science employs research methods from multiple traditions as well. They might pass out multiple choice surveys asking people who they will vote for in the next election. However, they will also ask open-ended questions about why voters will make that choice or asking voters which issues are most important to them in the next election and why. Finally, political scientists might conduct textual research by looking at historical voting records in the past or reading other political analysis of voting patterns.

Social Sciences traditionally have relied on qualitative research, but also rely on quantitative research such as surveys in conducting mixed method research, especially when trying to learn about a large population of people. For instance, in **psychology**, researchers might conduct both open-ended interviews and multiple choice surveys to examine attitudes toward education in a large cross section of the population. Some psychologists also examine artifacts like drawings or writing completed by members of the subject population, applying behavioral or cognitive theories to interpret these texts as another way to understand psychological phenomena.

How Do You Do Mixed Method Research?

There is no one way to conduct mixed method research, making mixed method research probably the most complex (see Figure 1). Nonetheless, certain general guidelines can help you conduct and write about research using any combination of methods.

Learn as Much as Possible about Different Research Traditions and Their Methods

The first step in conducting mixed method research is to learn as much as possible about the three different research traditions—quantitative, qualitative, and text-based—and the different methods that each of them uses so that you have a thorough understanding of the research methods available. Chapters 6-8 provide a solid introduction to these research options.

Compose Your Research Questions

The second step in conducting mixed method research is to compose your principal research question. One of the biggest benefits to mixed method research is that your research question doesn't have to be constrained by any one research tradition or method, giving you complete freedom in developing a research question that fully follows your research interests or the needs of a writing situation. You can also consider research questions that are more comprehensive than those that you would consider for a more focused project.

Once you have developed a major research question, you need to consider supplemental research questions that would help you best answer your major research question. It's important that supplemental research questions follow from the one major research question.

Select the Most Useful Research Methods

The third step is to carefully select the research methods that will most fully answer your major research question and suit your writing situation. Next, consider research methods that will best address your supplemental research questions. Along with deciding on methods, you have to consider the participants of your research. In some mixed method research, you have a limited number of participants or the study only applies to a select population, so you might ask the same subjects to complete a survey, be observed, and/or be interviewed. In other cases, mixed method research is focused on a topic, so similar participants are interchangeable. You might survey one group of randomly selected people, then interview another randomly selected group of people to get more developed responses on the same topic. You might also mix topic and participants. For instance, An efficiency expert might interview the management of a business about the corporation's decision-making processes, but survey employees about how they use their time at work.

In its simplest form, mixed method research involves using multiple methods within the same research instrument. An example of this would be a survey such as the ice cream example above that included closed, quantitative questions and open-ended, qualitative questions within the same survey. The researchers would design questions that elicit the type of information they hope to gather, and the results would be integrated from the start.

Depending on your topic and approach, however, you might need to use research methods from two different research traditions and conduct each part of the study separately. A civil engineering firm assessing a potential park project might assign members of their research team to study different aspects of the project. One could survey the available land and infrastructure; a second could interview county officials about the project's budget and what amenities they have in mind; a third researcher might survey community residents about what features they think are important in a park and how they would use the facility. After conducting the three methods separately, the researchers would convene to synthesize their findings and design the park based on their results.

It might also make sense to design a mixed-methods study in which several methods are used sequentially. The engineering firm determining how to build a city park that would best meet the needs of the local community could instead begin by surveying the land and structural possibilities for the available lot. They might then conduct a focus group to generate ideas about facilities, layout, and appearance. Using those possibilities, the researcher could design and distribute a survey asking community residents to rank desired features and answer multiple choice questions about how they would use the park. The engineers would synthesize the results of their three research methods to inform their plans for park.

Analyze Your Data Sets

Once you have conducted each part of your study, the next stage is to analyze the data. Analyzing results from primary research is much like analyzing texts, as discussed in Chapter 6. However, it is often necessary to code raw data in order to identify patterns or compare results gained using different methods. The variety and depth of data that qualitative and quantitative research can provide makes it difficult to recognize patterns in data without creating a code or system of comparing patterns within the data. The researcher here might look through observation or survey data and assign a number or letter to every instance of a particular observed phenomenon, thereby quantifying the data so that it is easier to see a frequency. Such coding doesn't necessarily have to be quantifiable. With qualitative data, coding data might simply involve organizing the data around recurring themes that answer the research question in some way to see if any insightful or provocative patterns arise. Because the data in quantitative research is numerical, coding also consists of statistical analysis. (For more on coding and analyzing qualitative data, refer to chapter 7, Qualitative Research. For more on coding and analyzing quantitative data, refer to chapter 8, Quantitative Research).

Put It All Together

The final stage in mixed method research is synthesis. In other words, the researcher has to make sense of the different research questions and data within the context of the major research questions. In some instances, different research questions might provide contrasting data that the researcher then has to resolve. Deciding what data should be reported as well as the priority of some results over other results is one of the more difficult tasks of mixed method research.

As you can see in Figure 1, mixed method research offers more opportunities to respond to larger or more complex research questions because it generates data from different perspectives. In composing mixed method research, you are attempting to synthesize various types of data to provide a more complete picture of a complex situation. As you consider the previous example of the community park, recognize that mixed method research generates a great deal of data that must be synthesized and carefully placed in context when considering all of the research.
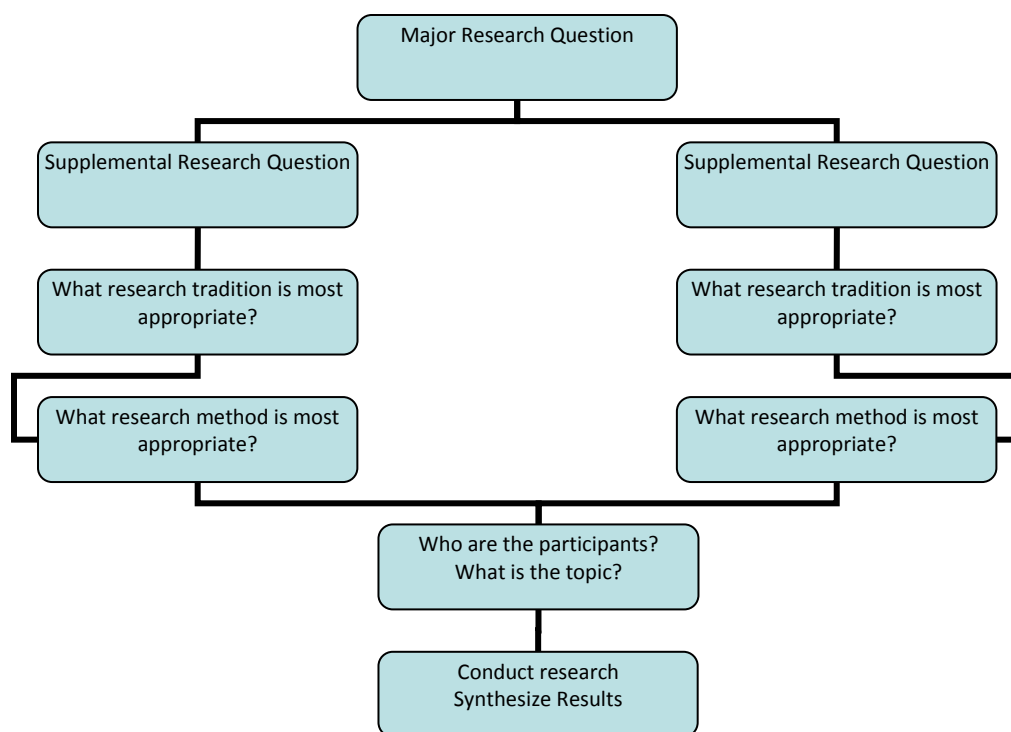
```
                    ┌─────────────────────────┐
                    │  Major Research Question │
                    └─────────────────────────┘
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Figure showing flowchart with boxes:

- Major Research Question
- Supplemental Research Question (left) / Supplemental Research Question (right)
- What research tradition is most appropriate? (left and right)
- What research method is most appropriate? (left and right)
- Who are the participants? What is the topic?
- Conduct research / Synthesize Results

Figure 1

However, while the flowchart (Figure 1) details one approach to conducting mixed method research, there are many other approaches. Much mixed method research is more intuitive and originates not from a formal plan but more organically from the needs of a specific research question or writing situation. The most important thing to keep in mind then is to make sure that you develop a mixed method research plan that answers your research question the best. The flow chart approach is there to help you if you are having trouble getting started on your mixed method project and need more guidance or if it makes sense for your particular research question.

How Do You Write About Mixed Method Research?

In composing a mixed method research report, you will use many of the same research strategies discussed in the chapters about text-based research (Chapter 6), qualitative research (Chapter 7), and quantitative research, Chapter 8. Regardless of which methods you use, you should base decisions about format, organization, style, and documentation on your specific rhetorical situation. As you read the following selections, pay particular attention to what each section of the writing accomplishes as well as the overall format, structure, and style.

Scholarly Example

This scholarly article, written by Richard T. A. Wood, Mark D. Griffiths, and Adrian Parke, uses mixed method research and was published in the academic journal *CyberPsychology & Behavior*. *CyberPsychology & Behavior* examines how computer-mediated technologies influence behavior and society. Richard T. A. Wood is a senior lecturer of psychology at Nottingham-Trent University in the United Kingdom. Mark D. Griffiths is a Professor of Gambling Studies at Nottingham-Trent University. Adrian Parke was a PhD graduate student at Nottingham-Trent University during the time this article was written.

Experiences of Time Loss among Videogame Players: An Empirical Study

RICHARD T. A. WOOD, MARK D. GRIFFITHS, and ADRIAN PARKE

ABSTRACT *:* Playing videogames is now a major leisure pursuit, yet research in the area is comparatively sparse. Previous correlational evidence suggests that subjective time loss occurs during playing videogames. This study examined experiences of time loss among a relatively large group of gamers (n = 280). Quantitative and qualitative data were collected through an online survey. Results showed that time loss occurred irrespective of gender, age, or frequency of play, but was associated with particular structural characteristics of games such as their complexity, the presence of multi-levels, missions and/or high scores, multiplayer interactions, and plot. Results also demonstrated that time loss could have both positive and negative outcomes for players. Positive aspects of time loss included helping players to relax and temporarily escape from reality. Negative aspects included the sacrificing of other things in their lives, guilty feelings about wasted time, and social conflict. It is concluded that for many gamers, losing track of time is a positive experience and is one of the main reasons for playing videogames.

Introduction

A WHITE PAPER by the Entertainment and Leisure Software Publishers Association (ELSPA)[1] noted that, over the last 15 years, electronic entertainment has been a dominant leisure pursuit. There are marked gender differences in relation to patterns of videogame playing behavior with males playing videogames significantly more regularly than females.[2–5] Wood et al.[3] found that 18% of the males in their sample were concerned about how much time they spent playing videogames compared to 3.7% of females. They also found that males were more likely to report losing track of time whilst playing videogames compared to females.

The findings of Wood et al.[3] indicated that videogame playing may be used by some players as a means of mood modification. They found that significantly more males reported that they played videogames for excitement and/or relaxation than females. Wood et al.[3] also found that significantly more high-frequency videogame players in their study (where high-frequency players were defined as playing videogames at least five times a week for a minimum of 1.5 h per session) reported losing track of time when playing videogames, compared to low frequency videogame players (where low-frequency players were defined as playing

videogames 2 days a week or less, and 1 h or less during each playing session). However, this does not tell us much about why time loss occurs, as those who play the longest also have the most opportunity to lose track of time. It appears that there are features of these activities that have the potential to absorb some player's attention to the extent that their perception of time is altered. Previous studies have found that regular videogame players often reported playing for longer periods than they intended.[4–6]

Wood et al.[7] in an examination of the structural characteristics of videogames found that features such as physical feedback were not popular with either males or females. It was reported that such feedback may act as a "reality check" distracting the player from the game itself, and reminding them of their actual physical surroundings.

Similarly, it was found that game characters that represented real people (e.g., Tony Hawkes) were not highly rated, possibly because players wanted to imagine themselves as the character on the screen. In addition, character customisation was deemed to be an important feature of a game by most participants. Therefore, it may be that the ability to dissociate when playing games (e.g., to forget about time) may depend upon certain characteristics of the game that allow the player to enter into a fantasy state.

Little is known currently about why subjective time loss (i.e., losing track of time) occurs whilst playing videogames, other than speculation that it may relate to features of escape, immersion and arousal. Furthermore, we do not know which characteristics of videogames, if any, may lead to varying degrees of subjective time loss (e.g., exploring, fighting, solving problems). The present study set out to examine videogame players' subjective experiences of time loss whilst playing videogames. The study was concerned with understanding both the meaning that time loss had for gamers, as well investigating any strategies they used to control or limit time loss experiences. In addition, the study asked about the particular characteristics of games that were most associated with losing track of time.

Methods

Participants

A total of 280 participants took part in the study (202 males and 78 females), and they had a mean age of 22.6 years (16–51 years; SD = 5.96 years). Participants were self-defined "gamers" recruited through various videogame discussion groups and through snowballing techniques requesting the link be sent to other interested gamers. The majority of the participants were from the United Kingdom (n236) or the United States (n = 24), although 13 other countries were also represented among the remaining participants (n = 20).

Design, materials, and procedure

An online survey was constructed using *Autoform*, an in-house survey tool (i.e., http://ess.ntu.ac.uk/autoform/). The survey contained seven closed questions (relating to demographics, and time spent playing games), and six open ended questions (relating to gamers' views, experiences, and strategies in relation to time loss whilst playing videogames).

Data were collected online, as it has been argued[8] that this medium is particularly well suited for investigating videogame players.

Analysis

Participants were contacted via a posting on various gaming discussion group web sites and informed that the study was about their experiences of losing track of time whilst playing

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Comment [R4]: These first two paragraphs establish the literature review and summarize all the previous research done on time loss occurring during video game play.

Comment [R5]: This sentence sets up the gap in the research, indicating what research question this study is going to attempt to answer – why time loss occurs while playing video games – that the previous research in the literature review has not answered yet.

Comment [R6]: These two paragraphs summarize a study that starts to explain some aspects of why time loss during video game play may occur.

Comment [R7]: These two sentences establish two gaps in the previous research: 1) it repeats the gap that little is known about why time loss occurs during video game play, 2) not much is known about what video game features cause time loss.

Comment [R8]: These three sentences clearly state the purpose of the study – they define as statements the three research questions that the study will try to answer about time loss during video game play. Notice how each research question atten ... [1]

Comment [R9]: The number of participants is clearly indicated. This is crucial for a quantitative study because the study be ... [2]

Comment [R10]: Who the participants were is also clearly defined – the gender and age of the participants. It is important in a quantitative study to define as much as ... [3]

Comment [R11]: The third variable defined in the study's population is that they all play video games and consider themselves to be "gamers." This variable is crucial to defin ... [4]

Comment [R12]: Finally, ethnicity of the study population was also defined, although not as clearly as the other three variables.

Comment [R13]: This part of the study is a definition of how the survey was designed and distributed.

Comment [R14]: This paragraph clearly lays out how the survey was designed. Notice it uses both closed questions, which are quantitative, and open-ended questions ... [5]

Comment [R15]: This is a description of how the surveys were distributed. Also, a rationale for why the surveys were distributed like this (online) is offered.

videogames. They were informed that all responses would be kept anonymous and that their email address would not be passed onto anyone else. Participants who wanted to participate followed a link that led them to the online questionnaire where further instructions were given. Once the questionnaire was completed, the participants pressed "Send," and their responses were automatically sent to the research team.

Details of participants' views about time loss whilst playing videogames as well as their experiences of, and any strategies they use, to manage time loss were assessed through microanalytic content analysis. Emergent coding procedures werefollowed,[9] and two of the authors independently read through all of the questionnaires (with demographic indicators removed) and compiled a list of global thematic response categories for each of the six open ended questions. Comparison of the lists showed a high level of initial similarity (91% agreement). A composite list of response categories was collapsed into a final set of coding categories that was applied to all of the questionnaires. Two of the authors coded all of the questionnaires independently. Inter-coder agreement was high, with kappa values of 0.64–0.82. Landis and Koch10 report that kappa values of 0.61–0.81 show a substantial strength of agreement, and values of 0.81 and above can be considered almost perfect.

Further quantitative data were analyzed using chi-squares and descriptives through SPSS version 11.

Results

The mean number of hours that participants reported playing videogames was 12.5 h per week (SD = 10.9 h). The majority of participants regularly played online games (61.1%), and the mean number of hours those gamers spent playing games online was 9.4 h per week (SD = 11.2 h). Almost all of the participants reported that they had experienced time loss whilst playing videogames (99%), of which 17% experienced time loss occasionally, 49% frequently, and 33% all the time. There were no significant gender differences (X^2 = 2.33, d.f. = 3, p = 0.51).

Overall, the majority of participants reported that losing track of time could be either good only (24.3%), bad only (29.3%), or both good and bad (38.2%). There were no significant gender differences (X^2 = 3.227, d.f.= 3, p = 0.36). There was no significant difference in views on whether time loss was good or bad between low-frequency players (i.e., those who played 5 h or less per week), and high-frequency players (i.e., those who played 15 h or more per week) (X^2 = 0.75, d.f. = 3, p = 0.86). Two-thirds of participants (67.9%) reported losing track of time in the evening and/or playing into the very early hours of the morning, compared to the afternoon (6.8%), and in the morning after getting up (1.4%).

Explanations for positive and negative views of time loss

Typical reasons that participants gave for time loss being good were that it enabled them to unwind, and temporarily escape from their everyday stresses and strains. Time loss could also indicate satisfaction with the game. This demonstrated that players were absorbed by the game and were enjoying themselves, and in this respect, the game was perceived as good value for money (Table 1).

Comment [R16]: The process of exactly how the participants were surveyed is described in explicit detail.

Comment [R17]: In this paragraph, notice that these open-ended responses are potentially unique to the participant. As a result, these responses can only be sorted and grouped along similar themes. While statistical analysis can be used to then measure those similar themes, these statistics are never completely exact. There are almost always responses that do not fit in any of the themed categories, and there is also usually at least some overlap between themes in some responses. Also, a variety of themes could be used to sort the responses. Each variety of themes will change the statistics of the data. However, to get around this problem of finding different themes in the same data set, two readers analyzed the data looking for themes independently and still found a high level of agreement in the themes they found – 91%; however, there still was not 100% agreement, but this is because no two people will see the same descriptive data set in exactly the same way.

Comment [R18]: To indicate how quantitative data is to be analyzed, researchers usually indicate what statistical analysis they will use.

Comment [R19]: These last two paragraphs describe how data was analyzed.

Comment [R20]: In typical IMRAD style, the both the raw data and raw statistical results are given for the quantitative and qualitative data in the results section. Notice that other than basic statistical averages there is very little analysis of the data. The data is simply presented. For the quantitative data, basic percentages are given. For the qualitative data, the data is presented around the basic themes that were found in it. However, [... [6]]

Comment [R21]: These two paragraphs above describe the statistical results of the quantitative, multiple choice data. As with all statistical data, the mean is reported first, then the standard deviation is given. Any other statistical data of interest is put in parenthesis, giving readers the choice of [... [7]]

Comment [R22]: In the table below, each category that indicates why time loss occurred is a major theme that was found in the qualitative responses. The qualitative data was analyzed around these themes.

TABLE 1. POSITIVE AND NEGATIVE ASPECTS
OF TIME LOSS

Time Loss	%
Positive aspects	
Helps relieve boredom and/or stress	71.8
Indicates a good game and value for money	51.1
Negative aspects	
Missing other things (e.g., classes or appointments	87.7
Losing sleep	42.0
Guilt at "wasting time"	35.9
Creates conflict with others (e.g., partners, friends, relatives)	9.6

There were no significant gender differences on any of these, or between high and low frequency players.

Typical responses to the question "*Do you think losing track of time when playing games is a good or a bad thing?*" included:

> Good games are good, and losing time is usually a by-product. Losing oneself and no longer self monitoring is a good thing, almost by definition (male, age 31).
>
> I love losing track of time. I game to relax—it is a tool of escapism for me. If I was aware of time I'd be aware of all the things that stress me out (female, age 25).
>
> As long as no appointments or much needed sleep is missed then (it is) a good thing … (you can) immerse yourself in another realm (male, age 50).
>
> It's good to have a break from real world time—detaching yourself from normal time gives you the opportunity to "live outside yourself" for a while. When you do come back to normal time you feel refreshed … similar to the feeling you get after meditation (male, age 23).

The dissociative experience of time loss could also be used to distract the player from other, more physiological, unpleasant states that they were experiencing (e.g., withdrawal when giving up smoking). For instance:

> When (Final Fantasy 7) first came out, my boyfriend and I took turns playing and ended up playing for pretty much three days straight. We hadn't realized that two extra nights had passed and felt absolutely horrible physically afterwards. On a good note, playing videogames helped me quit smoking. I'd play instead and then huge chunks of time would go by with no nicotine cravings at all (female, age 25).

Typical negative experiences related to missing or sacrificing other things, such as appointments or sleep as a result of losing track of the time. Several participants expressed that they felt guilty after losing track of the time because they felt that the time could have been better spent doing other things. Sometimes participants experienced social conflict when partners, friends, or relatives felt that they were being neglected due to their game playing. For instance:

> Nothing is gained from playing a game. It prevents you from doing constructive things like coursework (male, age 21).

Comment [R23]: In this next section, the qualitative data is given. Notice how detailed the writers are in giving their responses. This is typical of qualitative data. Since descriptive data is never absolute, it is best to offer the readers as much of the raw descriptive data as possible so that they can decide for themselves whether the descriptive data was analyzed (statistically or otherwise) correctly. Often the raw descriptive data will appear in its entirety in an appendix at the end as well. In this way, researchers can choose whether or not they want to examine the data more closely for themselves or not. Just like it is important to specifically describe as many details as possible about the statistical analysis with quantitative data, it is just as important to include the raw descriptive responses for qualitative research.

I should be using my time more constructively, or going to sleep earlier (male, age 19).
Time is valuable and wasting it on games is a tad pointless. Playing on a game means I don't get the sleep which I need to function properly the next day or I'll just get moody (female, age 18).
You tend to neglect more important things than play, like your partner, pet, homework and sleep (female, age 23).
Losing track of time during the day can be very bad, especially when you've got lectures/work/important meetings/girlfriend or boyfriend (male, age 20).
I find sometimes that I miss things I shouldn't, like eating dinner or an early morning lecture. I don't think that's a good thing (male, age 22).

Characteristics of games that induced time loss

Time loss was not associated with any particular genre of game because most of the participants reported playing many different types of games, and different games often contained very similar characteristics (e.g., exploring, problem solving).

However, the key reported characteristics of those games that were reported as being associated most with time loss were that games were complex and immersive, had compelling goals and levels, involved interaction with other real players, had plot-driven stories, and were exciting and stimulating (Table 2). There were no significant gender differences on any of these, or between high and low frequency players.

TABLE 2. CHARACTERISTICS OF GAMES ASSOCIATED WITH TIME LOSS

Characteristic	%
Complex and immersive	38.9
Compelling goals, levels, scores to beat	20.7
Interaction with other real players (not artificial intelligence players)	17.1
Plot-driven stories	16.1
Exciting, stimulating game	3.9

Games that were complex and immersive were rated as most likely to result in time loss. Players talked about being "absorbed" by these games, and immersed into a different world. Many players highlighted either particular games or game genres that were more likely to facilitate losing track of time:

First person shooter games such as Unreal Tournament and Quake III. These games immerse the player in a 3D environment that makes you feel as though you are truly part of the action (male, age 20).
Games that have some sort of puzzle element to them. This incorporates many games from 'shoot'em ups' to adventure games, as long as they make you think (male, age 21).
The Sims. You can easily get caught up in it all(female, age 25).
Any absorbing game where you have "empathy" with the character. All RPGs and games like Grand Theft Auto, Splinter Cell, Halo, Zelda(male, age 20).
Role play games (Everquest). They absorb you more and give you much more options (male, age 22).

Puzzle games. They are much more involving and you have to think about them much harder in order to solve the puzzles (female, age 20).

Features that involved completing levels, missions, or beating personal high scores were also cited as reasons as to why time loss occurred. The temptation to play "just one more go" was reported as a major reason why gaming sessions could go on longer that intended. For instance:

I play a lot of platform games and these are definitely the worst for me. I think because you have the "Oh I'll just try it one more time" factor—and because you're concentrating throughout, you don't keep an eye on the time (female, age 24).

Puzzle games. They are continuous. The further you get you don't want to stop because you might beat a high score or personal best. Even when you lose/die you think you will do it, beat it next time(female, age 34).

GTA Vice City because once I fail a mission once I become determined to complete it before I go to sleep. I want to find out what that mission is and if I can complete it and so it goes on and on (male, age 21).

RPGs. Involvement of the overall plot, trying to achieve one last goal before stopping (male, age 32).

Platform (games) because they are very compulsive. You keep wanting to get to the next level/world etc.(female, age 20).

I get into games like Bugs Bunny Lost in Time because there are so many levels and so much to solve and find that I get hooked until I can find it or solve it (female, age 20).

Strategy games. The need to take "just one more turn" (male, age 29).

The ability to interact with others was another reason given for losing track of time. Players referred to both the competitive aspects of game playing (e.g., playing local area network games with friends, or online first-person shooter games with people around the world). However, interaction was not just limited to competition it could also include socialising with other players, solving problems as a group, and trading virtual items particularly while playing massively multiplayer online role playing games (MMORPGs).

MMORPG's are different. You add the social aspect and the ability to trade, chat, and kill each other.

For most MMORPGs, the role-playing aspect is not equal to that of a single player one. The social aspect becomes a new intrigue for the gamer. Also there is usually no defined end, so gamers can constantly continue playing and improving (male, age 16).

Network games because of the intensity and competitiveness between flat mates (female, age 19).

MMPORPGs. These are like an online community that is always active. Again you become part of a group and play together. Because these games are played worldwide time zones become irrelevant(male, age 19).

Fighting games (Street Fighter) because when playing with another person we are constantly trying to beat each other (female, age 20).

MMORPGs. Involvement with players from other countries (male, age 44).

MMORPGs. I play a lot of Star Wars Galaxies (that)

cause me to lose track of time. I believe this is due to the nature of the game that is centered around socialisation and group work more so then solely individual achievement (male, age 21).

Games that had some kind of story or plot were also reported as contributing toward the experience of time loss. Wanting to know "what happens next?" was a characteristic that kept players involved and absorbed. A good story line evoked the player's imagination, and like a good book was hard to put down. Typical responses included:

Plot-driven games with exploration components.

You just can't wait to see what happens next. You finish a level and then there's a cut scene—a development in the story and you have to see what comes next (female, age 25).

First person shooters with strategic components that contribute to a narrative. I get caught up because I want to solve the current problem in order to find out more of the storyline and explore a new environment (male, age 36).

Role Playing Games such as Zelda, Golden Sun, and Pokémon, because you can get really involved with the story line. Games with a combination of good plots, stories and action (male, age 16).

Any game with a deep and interesting story. A game which seems to keep me anxious or anticipating the next move (male, age 20).

Strategies for preventing time loss

Half of the participants (49.6%) reported using some kind of a strategy for managing or avoiding time loss (Table 3). The most popular strategies were to position a clock, watch, or mobile phone(displaying the time) somewhere in view, or to set an alarm or timer on a clock, or mobile phone.

TABLE 3. STRATEGIES FOR PREVENTING TIME LOSS

Strategy	%
Have clock, watch, mobile phone in view	21.4
Set an alarm or timer	16.1
Someone else reminds them	5.0
Setting game goals	3.6
Physical reminders (e.g., hunger)	3.2
Listen to CD or radio	2.5
Take regular breaks	1.4

Other strategies included getting someone else to interrupt them or remind them of the time, setting time limits (using a timer), setting game goals (e.g., complete a level) to achieve and then stopping, relying on physical reminders (e.g., hunger, tired eyes), listening to a CD or radio, or taking regular breaks.

One participant reported leaving the window open, so that they could hear people coming home from the pubs/bars, or later still, the clubs. Of those participants who reported that time loss was a "good only" experience, 50% (n = 34) reported using strategies to minimize or prevent time loss.

This compared to 62.5% of participants (n = 67)

using strategies who reported time loss could be good and bad, and 42.9% of participants (*n* = 35) using strategies who reported time loss as a "bad only" experience. There were no significant gender differences on any of these, or between high and low frequency players. Typical strategies outlined included:

> Set my alarm for a certain time normally half an hour before I actually want to stop because Informally don't stop when I intend to. The other thing I do is listen to the radio because they tend to have time checks (male, age 22).
> I used to have a program to display the current time at the top of the screen during games(male, age 21).
> I try and limit how many games or levels I play. It is difficult though because the games are designed to make you want to continually progress (male, age 21).
> I play my main game in windowed mode. This way, I can see the clock all the time on my desktop (male, age 19).
> Play a music album and when it finishes I know I have been there a while!!! (male, age 18)
> Playing timed games such as Fifa(each game is8 minutes long) (male, age 20).
> Put the TV on a timing system so it automatically goes off after a while (female, age 18).
> Starvation and thirst usually work. Angry wife is the best! (male, age 31).

However, for others, the idea of limiting time loss was reported as counter-productive in that losing track of time was an experience that they actively sought. These players did not exhibit any feelings of guilt about the amount of time they played games. For example:

> I've never even considered something like this because losing track of time while playing a good videogame is a better feeling than anything else I can think of. It's a very big reason why the weekends are the best times for me to play games (male, age 17).
> I normally turn my clock away from me. I want to get lost in the game. It's my escape (male, age 16).
> Why would I want to keep track of the time? I play games to avoid having to be bound to the confines of time. There's nothing better than playing for what you may think was an hour and finding out that 4–5 have actually passed (male, age 23).
> If I'm winning I couldn't care less what time it is. If I'm losing I think more carefully about giving up for the night (male, age 42).

Discussion

Almost all of the participants reported losing track of time when playing videogames, and most participants reported that losing track of time whilst playing games had some positive benefits. The main reason for this appeared to be that the experience was seen as relaxing, and a way of escaping from everyday stress. For these people, the dissociation caused by being emerged in a different reality allowed them to "switch off" from the real world and indulge in some kind of fantasy world while time loss was also seen as an endorsement of a good game.

> **Comment [R24]:** This paragraph states the overall positive benefits of time loss.

> **Comment [R25]:** Further analysis of why most people thought time loss during video game play was positive.

One participant in the present study reported that playing videogames had in fact helped her to give up smoking by helping to distract her from the nicotine cravings. This echoes previous research showing that videogames have been used successfully with children as distractors from other unpleasant physical states such as the pain experienced following chemotherapy[11,12] and persistent scratching (from neurodermatitis).[13] A recent study that

examined problem gamblers[14]found that escape was the main reason that they continued gambling. For some this was a response to a need to fill a void in their lives. This void would reappear when gambling stopped unless there was a substitute activity to take the place of gambling. Further research could examine whether the distracting and/or dissociative properties of videogames are rewarding enough to work as a displacement activity for more problematic behaviors such as problem gambling or even drug taking.

The negative aspects of losing track of time centered upon issues relating to either missing other things (e.g., appointments, lectures, meals) or guilt feelings that the time could have been better spent. However, in order to avoid missing things, half of the participants employed strategies to limit the amount of time they would play for. The most popular of these strategies was to position a clock in view, or to set an alarm.

For some, losing track of time was an experience that they actually sought out whenever they got the opportunity. But again, they appeared to control their behavior by only playing when they knew they had the time to do so. However, there was no relationship between whether or not a participant thought time loss was good or bad, and whether or not they used a strategy to avoid time loss. Therefore, it may be useful for those who do not like losing track of time to consider one or more of the strategies outlined by other players in this paper. The reason they do not like losing track of time may be because they felt that they could not control it.

Feelings of guilt we reported by over a third of the participants and related to the notion that their time could have been better spent doing "better" things. It is not clear what those "better" things were, although there were some references to physical activities, reading, or being outdoors. It may be that the guilt experienced originated from societal views about the value of videogames. Videogames have often been vilified by the media and social scientists. These have tended to emphasise the negative aspects (e.g., videogame-related violence, and/or their addictive potential). This may make playing videogames for long periods of time more stigmatic than other more established leisure activities such as reading books.

In conclusion, there were no significant gender differences relating to time loss found in this study, neither were there any differences between high and low frequency players. This suggests that time loss while playing videogames could be a relatively universal phenomenon and is more dependent upon the particular structural characteristics of the game than upon who is playing it. It is also suggested that for many players, losing track of time is a positive experience and is one of the main reasons for playing videogames.

Comment [R26]: This paragraph further analyzes why video gamers consider time loss during video game play positive, but does this analysis by bringing in other studies and comparing them with this one.

Comment [R27]: This paragraph states the overall negative effects of time loss.

Comment [R28]: Further analysis of why people thought time loss during video game play was negative. Although the writers do not bring in other studies and research to further their analysis, they could. For instance, they could bring in a specific instance of a social science study that shows the negative aspects of playing video games or an example or two from the media that does the same thing.

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Scholarly Example Reading Questions

1) Although this study uses both qualitative and quantitative research, it is structured like a traditional quantitative study with IMRAD headings. Qualitative studies may loosely follow an IMRAD structure with their headings, but often there is more variation, especially in the methods, results, and discussion sections. Why do you think this mixed method study uses a traditionally quantitative structure even though it also uses qualitative methods?

2) What other population variables could be important in studying time loss during video game play?

3) Are there any potential problems with how "gamers" were found for the study?

4) Why do you think ethnicity is an important variable in studying time loss during video game play?

5) The researchers define ethnicity the least in their study. There are gamers from 13 other countries in the study, yet the countries these gamers are from are never clearly defined. Should these countries have been clearly defined? Why do you think the researchers did not clearly define these countries?

6) Why is describing the raw data so important in the results section that uses IMRAD structure?

7) After looking at the quantitative statistical data and qualitative descriptive data in the results, how else could the writers have analyzed their results in the discussion section?

8) a. What more could be included at the end of the discussion section?
b. Work in groups of 2-3 to write what you think could be included further in the discussion section.

Students as Scholars

Kevin Chavez, a biology major at the University of Denver, wrote his mixed method research paper, which use qualitative observations along with quantitative measurements of gold pieces earned through begging in *World of Warcraft,* as a first-year writing student. His intended audience for this paper was other *World of Warcraft* players but also academics interested in *World of Warcraft* research. *World of Warcraft* is a massive multiplayer online role-playing game (MMORPG), which means that it is a medieval fantasy game in which players from all over the world can play synchronously together. The behavior of other players is a rich topic of study. While players can earn money by playing the game—completing quests, battling and looting monsters, and buying and selling items they find or make in the auction house—they can also obtain money from other players through begging. This paper on begging took Kevin over four weeks to complete.

An Inconvenient Truth in the World . . . of Warcraft: Spare Some Gold?
Kevin Chavez
University of Denver

One aspect of the *World of Warcraft* that most players hate is beggars, who instead of working hard for money like true players do, walk around and ask people for money. When I first started playing *World of Warcraft* (*WOW*) on my male character, yes, I admit that I would beg for money from others just to see if I might get lucky. Occasionally, a few players would lend me a few copper or one silver. Wow, did I feel rich for a noob. Finally, I began making my own money by buying and selling until my recent encounter with my brother playing the infamous game of *Runescape*.

As some *WOW* players know, *Runescape* retains many of the same features as *WOW*, except it's free gameplay doesn't empty your bank account, and the graphics represent early computer games. You can choose between different classes of players from mages to warriors and of course male or female. He had been playing for months and had a level 21 mage. However, when I finally observed his play one day, I was surprised to find that he had been playing as a girl character. Quickly, I questioned his choice and his preference opened my mind to find another way how MMORPG's correlate with the real world. He simply told me that he uses his girl character to make money. Either he's gender confused or just clever.

As a male gamer, it's effortless to say how exciting it is to find a female that is as addicted to the game as you are or at least one that plays video games. Therefore, the vulnerability of a male gamer might be easily taken advantage of by any girl gamer, although with exceptions. Any type of attractiveness, or a male willing to woo a female, leaves the male usually trying to impress the female with knowledge, money, or other forms of flattery which most of the time in my case leads to failure. However, the female for the most part has utter control in these situations. My brother understood this relationship amongst human beings and put it to the test in *Runescape*. As you will see, he found success. I truly believed that *Runescape* was similar to *World of Warcraft*. My main character at the time was a Human Mage at level 47, and I wasn't really making much money with my character at the time, so why not give it a shot?

My hypothesis was that I believed that female characters would generate more money than male characters when begging others. I used my mage for the control of my little experiment, and of course, I started my begging in Stormwind around 8:00 PM Mountain time to ensure the area was full of potential players that would give me money. The center of Stormwind was my starting position mainly due to higher levels just hanging in the area. My targets that I would ask for money from were either male or female level 60-70 characters that seemed possibly bored and unoccupied. The plan was to ask characters by whispering to them; general chat would most likely get me bombarded with insults and my research wouldn't be consistent.

My first character I questioned was a level 70 human male paladin. I asked, "Could you please spare me some gold?" He simply laughed at me and gave me the infamous rude gesture. My next target was a level 70 female human mage, and when I asked her for money, she said to go make money myself. An hour went by and I only made 1 copper, which I found to be insulting. Some people would just ignore me and even the females. This research continued for five days and I guess I wasn't disappointed because the results agreed with my hypothesis. The total after the five days was 1 gold 45 silver and 23 copper.

Finally, the real experiment was starting as I began with my first of four female characters. The first character was my girlfriend's level 10 human mage who already had 10 gold received from doing some begging of her own. Once again, Stormwind was my place for my experiment with the same targets, but mostly males.

Just like my male character, it was difficult just asking people for money. "Could you help me get started by giving me some gold?"

Comment [R29]: Here Kevin outlines his hypothesis for his study. A purely qualitative study would not include a hypothesis; however, since Kevin is measuring his study with primarily quantitative data – the exact amount of money he receives – a hypothesis is fine.

Comment [R30]: Here Kevin lays out his research methods for his first study. He clearly indicates what time he started begging, who his character was, what level his character was, where he was going to beg, who he was going to beg from, and what chat channels he was going to use because all of these factors will influence his results.

Comment [R31]: Kevin includes the exact phrase he asked people since his phrasing could potentially influence his results.

Comment [R32]: He describes qualitative, observational details from his study, although he only does this for his first two encounters. A better qualitative study would have described more details of all the encounters.

Comment [R33]: Kevin indicates how many days he begged since this factor influences his results; however, he doesn't indicate how long he begged for each day, which would also influence his results.

Comment [R34]: He gives the quantitative data that proves his hypothesis.

Comment [R35]: Kevin details the methods of his second experiment; he conducts the same study in the same place, using the same chat channels at the same time, etc, but uses another character – a female level 10 human mage.

Comment [R36]: Here Kevin includes exactly what he asked other players, which could also have influenced his results.

Figure 1. Me asking for money with my human female Kimbogoose.

Most of the answers I received were "I'm broke" or "I'm saving for my mount." I did notice however how players were much more polite and ignored me much less compared to my male character. I was getting frustrated and desperate so to the end of my question I added, "…or anything would help." Finally I would get some silver from anyone I asked.

However, obtaining gold would be excellent so I took drastic measures. I took off all of my character's clothes until she was down to her underwear. Immediately I danced in the center of Stormwind and instead of pursuing my targets, they approached me. Some of the whispers I received weren't too appropriate; however, these comments showed me who I should possibly attempt to get gold from. One in particular I pulled aside and had a conversation with; this character was a male level 64 human warrior. I acted like I was attending the University that he was just accepted to and I suggested that we should hang out when he attends. After about three minutes of conversation, I asked, "Could I have some gold please to help me get started?" That's all it took and right away the trade window opened and to my surprise 10 gold was added. I confirmed the trade and the player said he would give me some more gold the next day. This strategy of conversation seemed to work well and I continued to use it for the following four days, generating 96 gold.

My research continued with a female dwarf hunter and I did my begging this time in Ironforge in to get a better chance at asking other dwarves. The reason for this decision is that dwarves aren't well liked by other races and hopefully other dwarves won't be quick to judge me. When I arrived in Ironforge, I was excited to see many dwarves and gnomes because I feel as if our similar heights already make us friends. This was the first time I played with a short character and I immediately felt intimidated by the taller players. Finally, I began my begging and quickly become frustrated. I felt like a ghost as mostly everyone ignored me. Even my fellow noobs ignored me throughout the process. After about forty-five minutes, I stripped to

Comment [R37]: Kevin details some of the qualitative descriptive data from his second study.

Comment [R38]: Here Kevin offers some qualitative results, but is not specific about what people said to him.

Comment [R39]: Kevin again indicates how he changed his methods slightly to get better results.

Comment [R40]: Here Kevin is getting more specific with his qualitative data, but again even more specifics would be better. For instance, what exactly did he tell the level 64 human warrior?

Comment [R41]: Here Kevin does get specific enough, but it would better if he was this specific with his qualitative data while describing this entire encounter.

Comment [R42]: He gives the quantitative data that proves his hypothesis.

Comment [R43]: He outlines his research methods for his third experiment, although he doesn't include what level his character is at. He changes his location, but he offers a rationale for doing this. It would be better if he was more specific about where exactly in Ironforge he begged; from his screenshots, it appears that he begged mostly between the bank and the auction house, although he needs to make this clearer.

my underwear and began dancing. Now, a female dwarf in her underwear doing the riverdance isn't the most attractive thing in WOW. From a male's perspective, a woman dancing using her hips and smooth body movement is more attractive than when doing the riverdance. I was lucky to have a level 64 male dwarf hunter give me 50 silver. This small amount of money wasn't much, but I was in relief to finally receive something. The next four days of begging with this character was probably the most boring activity I've done in my life. Most of the time, I was just being ignored and yelled at by players, especially the taller ones. By the end of the five days, this character generated only 8 gold.

Figure 2. Me with my dwarf character asking another for money

I was quite excited to do research as a gnome to see if I would make more progress than I did with my dwarf. Immediately I created a female gnome rogue character and headed off to the city of Ironforge. Not to my surprise, I was surrounded by most of the same players I questioned with my dwarf character. I figured that if I become successful, this provides evidence that dwarves aren't well liked in WOW. Right away, my experience became different from my dwarf's right away, as people would actually respond to my questions. Of course, I usually received the occasional "no way" or "I'm saving for my mount." However, people were giving me about 50 silver each time I asked them. After generating 6 gold in thirty minutes, it was time to strip down. I began dancing and quickly gathered attention from other male players. A level 3 female dwarf also stripped down and started dancing. She told me to back off her territory and leave, she might be another player attempting what I'm doing. This was very doubtful. I laughed because I was sure her riverdance would definitely not attract others. The female gnomes' dance was quite provocative and feminine and was sure to hopefully attract the amount of players that my human managed to achieve. Subsequently, a few male gnomes that were levels 70 67 and 65 approached me and began to dance also. I began to speak to them about random things like our main characters and guilds. After about ten minutes of

Comment [R44]: Here again, Kevin changes his study but describes how he changed it.

Comment [R45]: Here Kevin describes his qualitative results, but as he does so, he also offers a possible analysis of why he probably got these results. While in a traditional IMRAD structure, this analysis would not be done until the discussion section, in many qualitative studies the results and discussion are often combined. Because this is a mixed methods study, Kevin's more loose qualitative structure is fine.

Comment [R46]: Once again, Kevin needs to offer more specific qualitative data to describe his experiences. What did he say to people? What exactly did they say in response?

Comment [R47]: He offers his quantitative results at the end.

Comment [R48]: He outlines his research methods for his third experiment, although he again doesn't include what level his character is at. Since he just started his character, it can be assumed that she was at an extremely low level; however, it would better if he had included this information.

Comment [R49]: He is a little bit more specific here about what types of responses he got, but again, the more specific detail of what was said, the better.

Comment [R50]: He again describes how he changes the experiment midway through.

Comment [R51]: Here again, he offers some analysis of why he got the results he did with this new character.

conversation, I whispered each one and said, "Would you spare me some gold please?" The trade window popped up each time I asked; the level 70 gave me 50 gold, the 65 gave me 20 gold, and the 67 gave me 24 gold. Consequently, this total brought me to a total of 100 gold in one hour!

I couldn't believe my eyes! Ironically, the female dwarf was still dancing and nobody was paying attention to her. I continued my female gnome research in Ironforge for the next four days, making a total of 202 gold from mostly gnome players. Some of the gold was gained from dwarves and humans, elves, and draenai never offered more than one gold.

Figure 4. I have 100 gold in my inventory!

My final character I needed to conduct research on was a female night elf druid. Unfortunately, the closest city to a night elf's starting position is Darnassus, where not many players like to stay. For about an hour, I searched for a mage to teleport me to Stormwind to do my research and when I finally got there, I found many high level players. Yet again, I started asking players for money and immediately was shunned by many players. Those players however were by the bank and seemed to be busy. I moved to the spot I did my begging at with my human character. This spot is directly in front of the auction house, and it's definitely a great place to do begging because many players socialize here; from past experience with my human, I know it can be productive. I received twenty silver here, 50 silver there, which wasn't plenty at first, but the money added up over time. "Would you please help me out with some money, anything would help please?" The majority of the players that gave me money were males, a few were females. At my thirty-minute mark, I had received up to 7 gold. I quickly stripped out of my clothes and began dancing. And just like my gnome, male players of the same race gathered around me. Some of them however were humans and gnomes. Twenty minutes after dancing,

Comment [R52]: Here again he offers more specific qualitative information about the specifics of the interactions he had with players.

Comment [R53]: Here he again details the quantitative results of this experiment, although this time he includes what races gave him the most money, something he does not include for the other experiments.

Comment [R54]: Once again Kevin indicates the place and type of character he is conducting his final experiment with.

Comment [R55]: Here he indicates what he asked players; however, once again, more descriptive qualitative data of what the other players said to him in response would also be good.

Comment [R56]: He again details how he changed the study.

Figure 5. This player gave me 15 gold.

it was like taking candy from a baby. I asked 7 players for gold and 5 of them offered me gold, giving me a total of 29 gold in one hour with my night elf. After the five days of research was finished, my female night elf received 93 gold mostly from male night elves.

Figure 6. Total Gold Received in 5 Days.

Finally, my research was finished and obviously the data collected supported my hypothesis. The figure below represents the gradual amount of total gold achieved by each player throughout the research. As you can see, the female characters' amount of gold received dominated the amount that the male control obtained. The only exception however is the female dwarf character; still, she generated more gold than the male did.

Now the only question to answer is why? Why do female beggars make more money begging than a male character would? From a male standpoint, this question isn't too hard to answer or at least produce a theory from the data collected. Throughout the history of mankind, the male gender has gone through anything to impress the opposite sex. In World of Warcraft, this could be with fancy armor, mounts, or most likely money. Many high level players just stand around in cities doing nothing but showing off what

Comment [R57]: Finally, he included the quantitative results from this experiment.

Comment [R58]: In this section, Kevin analyzes his data. He starts by clearly stating whether or not he proved his hypothesis.

Comment [R59]: Kevin briefly describes the overall findings from his study.

Comment [R60]: In this paragraph, Kevin starts to analyze his data. He needs to analyze why he received the data that he did. So he begins by asking this question, which he then attempts to answer with further analysis.

they have to surrounding players. Knowing this, I would complement those players on what they possessed, producing conversation. Most players won't just give away money to a random person asking for it; they must have something in common or have a relationship with the opposite player, or they must be very attracted to the player. Males in general in and outside of the game are known to give money away depending on who the person is. Thus, males are likely to give money to females because of the instant bond they feel with a female sharing the single characteristic of the game. Men are more competitive with men than they are with females and giving a male money is just making that player more powerful. Even if the amount of money given is small, male players aren't as willing to give other males money. Would the male player giving the money benefit from the situation? Not as much as he would giving money to a female.

Figure 6. Total Gold Received in 5 Days.

Now what about females gives them priority over other males when it comes to begging? Could this be that females intimidate male players? Could this be something sexual? Both scenarios are absolutely possible. The male player would benefit in this situation by possibly earning a relationship with the female, opening many opportunities, which happens in the real world also. Would this result be the same for males begging women players? The answer is likely no because women tend to give away money depending on the reason the person needs the money, not on who needs it (Lankenau).

Sex sells, and that's something we all have heard and witnessed. With each character I used, the first thirty minutes of begging went by with the female character fully dressed. After the thirty minutes, each character's clothes were removed to see if more money could be generated. Sadly, this did help to produce more money. Players surrounded my dancing characters once the clothes were off with the exception of the human male and the female dwarf. Those surrounding players become potential money givers and the results were clear as to how

Figure 6. Total Gold Received in 5 Days.

much they contributed. Eighty-four percent of the money was made without clothes and 16% of it was made with clothes. Why would this happen? Basically, the world is full of perverted people, even virtually. Once again, in today's world, sex sells. The majority of males become

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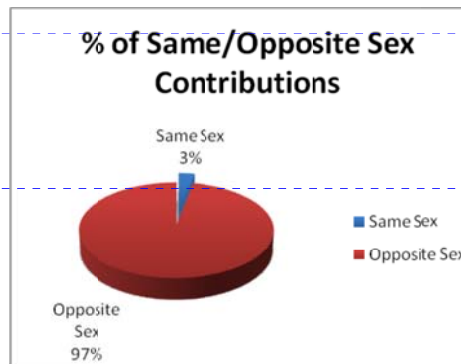
Comment [R61]: Here he gets to the heart of his analysis, offering some thoughtful explanations for his results. However, this is just his perspective, so he needs to support this analysis with other research about gender behavior either in other MMOs or in general.

Comment [R62]: Here Kevin includes an outside source that supports his analysis about female players giving money to males.

Comment [R63]: Again, he details his procedure for doing each experiment, although it would have been better if he had been this specific when he originally discussed his methods. He also should have given the amount of money he earned with his character's clothes on with the amount of money he earned with his character's clothes off so that he could have shown a comparison.

Comment [R64]: He describes his quantitative findings for this part of the study

Comment [R65]: Here he begins to analyze these quantitative findings, and, again, he begins his analysis with a question.

excited when a female reveals more skin, making them more vulnerable to doing exactly what the female wants. Some of these high level male players have a large amount of gold on them, and with their mind focused on sex, they are more willing to give out money than they would when they're not distracted. It's pretty simple when you think about it, although it's distressing knowing that my characters had to do that for extra attention. There is much correlation between this and the real world today. Ads in male magazines use beautiful half naked women to get a man's attention focused on the page of the product. Fashion shows just for lingerie and swimsuits attract male viewers. Other women notice this and get the idea that if they wear these, men will be more attracted to them. Sad to say but in most cases this is true. Therefore, here is just another of many relationships obvious between *World of Warcraft* and the real world. Another observation that supports that the opposite sex is mostly the contributor of money is shown in the figure above. Only 3% of the players that I collected money from were of the same sex. Ninety-seven percent of the players that money was collected from were of the opposite sex. This data is crucial and it deeply supports that males are more likely to give money to a female than to a male.

> **Comment [R66]:** Here he analyzes his findings more by comparison with the media. This comparison would be strengthened if he could find other studies or scholarly sources about the media to support his claims here as well.
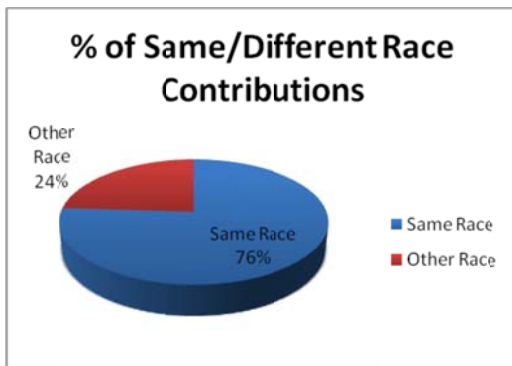
Figure 6. Total Gold Received in 5 Days.

While conducting research, I came upon answers to questions I didn't originally have. Yes I did answer the question of whether females generate more money begging than males do; however, of those players that I received money from, how many of them were of the same race as the character I was using? Earlier in the reading, it's noticeable to see that players that surrounded my character were mostly of the same race. Why was this? This is another aspect of World of Warcraft that's similar to the real world. Interracial relations aren't abundant in most places of the world. Possibly, this is the same in the *World of Warcraft*, which is believable because it's supported by the data collected. When I did my character as a gnome, mostly other players that surrounded me were gnomes. There must be an unseen bond between races and they might feel as if they are most compatible with one of the same race. That however could be a different research project for someone to look into.

> **Comment [R67]:** Here Kevin analyzes a finding from his study that he didn't expect. Keeping an open mind and discovering something new about people or society is one of the hallmarks of qualitative research. However, earlier he should have been more detailed in describing this new phenomenon while he was describing his five experiments qualitatively in the beginning. This would make this new finding much more credible. It would also have been great if he could have counted how many characters of the same race gave him money compared to characters of different races so that he could have gained clearer quantitative findings as well. However, since he didn't expect this result, this could be an area for future research.

Begging is different in the *World of Warcraft* when compared panhandling in the real world. Panhandling contributors seem to show sympathy towards the sick and the poor. In World of Warcraft however, contributors almost need some amusement and entertainment from the beggar in order to feel satisfied enough to give money. Of course there are people who are just too nice and give away money for no reason. Wow, if only I knew all of those players. As I wrote earlier, there are many correlations between the game and reality. Without those similarities, the data would have been significantly difficult to interpret. It was hypothesized that females could generate more money begging than males could and the data collected definitely supports that hypothesis. I don't suggest players try this because I believe in

> **Comment [R68]:** Here again he analyzes his data further by making comparisons between his findings and the real world. This comparison is headed in the right direction, but would be strengthened if he could find other studies or scholarly sources about race to support his claims here.

actually playing the game instead of walking around begging people, and the purpose of my activity was for research only. This experience broadened my perspective on gender bias in both reality and the World… of Warcraft.

References

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Students as Scholars Reading Questions

1) Write an abstract for Kevin's study.
2) Kevin does not include a review of the literature or a research gap. Does Kevin need a gap for his particular study? Why or why not?
3) What are Kevin's research questions?
4) What are Kevin's research methods? How could he have more effectively presented his research methods?
5) Were Kevin's research methods ethical? Why were his research methods ethical or not? If you don't think his research methods were ethical, how could he have revised his research methods to ensure that they were more ethical? (For a fuller discussion of research ethics, refer to Chapter 4.)
6) Does Kevin show bias as a researcher? Why or why not? If you think he showed bias as a researcher, how could he have reduced this bias in his research?
7) In what ways could Kevin have presented his research results more clearly as he describes what happened in his study?
8) Kevin does not include any headings in his study. Working in groups of 2-3, include appropriate headings for his study. What headings would you add? Why? Where would you add headings? Why?
9) a.   Kevin intermixes some of his analysis of his data while he is describing his data; however, he reserves most of his analysis for the end of the study like a traditional IMRAD structure. Is this way of organizing his data and analysis effective? Why or why not?
   b. If Kevin's way of analyzing his data and analysis is ineffective, how else could you organize it?
10) a.   What were some of the limitations of Kevin's study? What were the strengths of Kevin's study?
   b. How could you conduct this study better in the future?

10) What do you think of Kevin's findings? In what ways do Kevin's findings interrogate sexism in online culture? What were the limitations in how Kevin's study interrogates the sexism in online culture?

Popular/Public Example

The following news story was released June 13, 2008 by Business Wire, an agency that "disseminates full-text announcements from companies and organizations worldwide. News release subjects include breaking news, earnings results, product announcements, mergers and acquisitions, public policy and press conference advisories." The story was printed by a number of publications, from national news source Reuters to the *Centre Daily Times* in State College, Pennsylvania. It is common for press agencies to use a corporate byline, rather than identify individual writers. In this case, a press release was written by a graduate student member of a research team headed up by Atsusi Hirumi at University of Central Florida. The release was then revised by Business Wire for dissemination. The full study by Mansureh Kebritchi, Atsusi Hirumi and Haiyan Bai used multiple research methods in responding to their research question.

Tabula Digita's DimensionM™ Educational Video Games Found to Have Significant, Positive Effect on Student Math Achievement
Business Wire

University of Central Florida research shows considerable improvement in achievement scores and student motivation when using algebra video game software.

Immersive educational video games can improve students' mathematics understanding and skills, and significantly raise scores on district-wide math benchmark exams. These new research findings, using Tabula Digita's DimensionM(TM) simulation software, come from scholars at the University of Central Florida who investigated the effects of modern math computer games on learners' math achievement and math course motivation in public high school settings.

"These research results are remarkable and support previous studies which have concluded that interactive games are more effective on learners' cognitive gains than traditional classroom instruction alone," said Ntiedo Etuk, CEO and co-founder of Tabula Digita. "We are teaching a new generation of students, which requires unconventional teaching strategies be put into practice in the classroom. And when schools use our games, the student benefits speak for themselves—a greater desire to learn and higher test scores."

The studies included all three interactive titles from the DimensionM series. In the games, key objectives are covered through a series of highly immersive action adventure missions. The educational video games contain three dimensional graphics, sound, animation and storylines comparable to those in popular video games.

The Study

The study, conducted by a team of faculty and graduate students at the University of Central Florida led by Atsusi Hirumi, Ph.D., sought to answer the questions: What effects does game play have on the student academic achievement; in mathematics what effects does game play

have on student math course motivation, and do differences in prior knowledge, computer experience and language background affect student math attitudes and achievement.

The qualitative and quantitative research used experimental and control groups to test their hypotheses. The findings, which yielded statistically valid results, were based on a sample size of 193 algebra and pre-algebra students and 10 math teachers from Orange County, Florida. Evaluations included pre- and post-district benchmark exams, game preparation tests, motivational surveys, classroom observations and personal interviews.

Results

Students in the experimental group who played the Tabula Digita video games over an 18 week period scored significantly higher on district math benchmark tests than students in the control group who did not play the video games (p less than .001). In fact, the increase in scores for the test group was more than double the increase in score for the control group.

Students in both the experimental and control groups demonstrated gains from pre-test and post-test on the district benchmark exams. However, students who played the games demonstrated greater gains—8.07 points versus 3.74—compared to the control group. The higher achievement scores and greater gain scores on the district benchmark tests by students who played the games are particularly significant because there is a high correlation between the district's math benchmark tests and the statewide math component of Florida's Comprehensive Assessment Test (FCAT).

Participant Comments

Teacher and student interviews supported the quantitative findings. The majority of the interviewed teachers (4 of 5) and students (15 of 15) reported that the participants' mathematics understandings and skills improved as a result of playing the educational video games.

According to the teachers, the games were effective teaching and learning tools because they were experiential in nature, offered an alternative way of teaching and learning, gave the students reasons to learn mathematics to solve the game problems and progress in the games. The teachers also commented that the games help to address student's math phobias and increased time on task. As one teacher states, "It (the games) makes them want to learn (math)."

According to the students, the games were effective because they combined learning and fun, offered mathematics in adventurous and exploratory context and challenged students to learn math.

"The traditional view of video games has been that they are distractions from the task of learning," said Etuk. "But this research clearly shows the opposite is true. These wonderful new learning tools are opening a whole new world for students and the education market at large."

Additional Findings

A number of important issues regarding the integration of games in school settings also emerged from the findings. To use the games effectively, the researchers found that teacher training and focusing on the integration of the games is essential for enhancing student learning. However, teachers do not necessarily need to know how to play each game. The research showed that students are very adept at figuring out how to play the game on their own and even go one step further by helping each other master the game mechanics. Additionally, access to the games from home, at community centers and libraries, as well as in classrooms and computer labs before and after school may optimize use.

For more information about Tabula Digita and its DimensionM educational video games, please go to www.DimensionM.com. For the complete research report, visit www.DimensionM.com/research

About Tabula Digita

Tabula Digita is an educational video game company focused on delivering innovative and effective educational games to students and institutions. Through its fusion of education and technology-based immersive learning systems, Tabula Digita successfully offers standards-based, high impact educational tools that engage middle and high school students in learning and applying Pre-Algebra and Algebra I concepts. For more information, please call 1-888-9-Tabula or 1-888-982-2852, or visit www.DimensionM.com.

Popular/Public Reading Questions
1. Who is the audience for this news article? Why? (Be specific in explaining and citing examples from the text that support your answer.)
2. Is the article effective in reaching this audience? Why or why not?
3. What is the overall purpose of this article?
4. Is the article effective in achieving its purpose? Why or why not?
5. Write a brief abstract of this study as it would appear in an academic, scientific journal.
6. What are the research questions for this study?
7. This mixed method study uses both quantitative and qualitative research. Which methods were quantitative and which methods were qualitative? Why?
8. a. What are the benefits of using mixed method research for this particular audience? b. What are the benefits of using mixed method research to answer this particular research question?
9. What is missing from this news article report of this study that would be included in an academic journal article? Why?

10. Even though this study appears in a news article, it is still quite technical for many other audiences. Rewrite this article for a college newspaper, paying special attention at presenting the important points of this study in a way that grabs and then keeps most college students' attention.
11. How could researchers conduct this study better in the future?

Mixed Method Cases

Case 1: Data Analysis

1. Look at the qualitative and quantitative data from the article "Experiences of Time Loss among Video Game Players" below. After looking at this mixed method raw data with all of the analysis stripped from it, what conclusions and analysis could you draw from this data that is different than what the authors arrived at?

Results for whether or not time loss is perceived as positive or negative during video gameplay:

TABLE 1. POSITIVE AND NEGATIVE ASPECTS OF TIME LOSS

Time Loss	%
Positive aspects	
Helps relieve boredom and/or stress	71.8
Indicates a good game and value for money	51.1
Negative aspects	
Missing other things (e.g., classes or appointments)	87.7
Losing sleep	42.0
Guilt at "wasting time"	35.9
Creates conflict with others (e.g., partners, friends, relatives)	9.6

Typical qualitative responses to the question "*Do you think losing track of time when playing games is a good or a bad thing?*"
- Good games are good, and losing time is usually a by-product. Losing oneself and no longer self monitoring is a good thing, almost by definition (male, age 31).
- I love losing track of time. I game to relax—it is a tool of escapism for me. If I was aware of time I'd be aware of all the things that stress me out (female, age 25).
- As long as no appointments or much needed sleep is missed then (it is) a good thing … (you can) immerse yourself in another realm (male, age 50).
- It's good to have a break from real world time—detaching yourself from normal time gives you the opportunity to "live outside yourself" for a while. When you do come back to normal time you feel refreshed … similar to the feeling you get after meditation (male, age 23).

- When (Final Fantasy 7) first came out, my boyfriend and I took turns playing and ended up playing for pretty much three days straight. We hadn't realized that two extra nights had passed and felt absolutely horrible physically afterwards. On a good note, playing videogames helped me quit smoking. I'd play instead and then huge chunks of time would go by with no nicotine cravings at all (female, age 25).
- Nothing is gained from playing a game. It prevents you from doing constructive things like coursework (male, age 21).
- I should be using my time more constructively, or going to sleep earlier (male, age 19).
- Time is valuable and wasting it on games is a tad pointless. Playing on a game means I don't get the sleep which I need to function properly the next day or I'll just get moody (female, age 18).
- You tend to neglect more important things than play, like your partner, pet, homework and sleep (female, age 23).
- Losing track of time during the day can be very bad, especially when you've got lectures/work/important meetings/girlfriend or boyfriend (male, age 20).
- I find sometimes that I miss things I shouldn't, like eating dinner or an early morning lecture. I don't think that's a good thing (male, age 22).

Results for which game features were most associated with time loss during game play:

TABLE 2. CHARACTERISTICS OF GAMES ASSOCIATED
WITH TIME LOSS

Characteristic	%
Complex and immersive	38.9
Compelling goals, levels, scores to beat	20.7
Interaction with other real players (not artificial intelligence players)	17.1
Plot-driven stories	16.1
Exciting, stimulating game	3.9

Qualitative responses for which game characteristics led to time loss:
- First person shooter games such as Unreal Tournament and Quake III. These games immerse the player in a 3D environment that makes you feel as though you are truly part of the action (male, age 20).
- Games that have some sort of puzzle element to them. This incorporates many games from 'shoot'em ups' to adventure games, as long as they make you think (male, age 21).
- The Sims. You can easily get caught up in it all (female, age 25).
- Any absorbing game where you have "empathy" with the character. All RPGs and games like Grand Theft Auto, Splinter Cell, Halo, Zelda (male, age 20).
- Role play games (Everquest). They absorb you more and give you much more options (male, age 22).
- Puzzle games. They are much more involving and you have to think about them much harder in order to solve the puzzles (female, age 20).

- I play a lot of platform games and these are definitely the worst for me. I think because you have the "Oh I'll just try it one more time" factor—and because you're concentrating throughout, you don't keep an eye on the time (female, age 24).
- Puzzle games. They are continuous. The further you get you don't want to stop because you might beat a high score or personal best. Even when you lose/die you think you will do it, beat it next time(female, age 34).
- GTA Vice City because once I fail a mission once I become determined to complete it before I go to sleep. I want to find out what that mission is and if I can complete it and so it goes on and on (male, age 21).
- RPGs. Involvement of the overall plot, trying to achieve one last goal before stopping (male, age 32).
- Platform (games) because they are very compulsive. You keep wanting to get to the next level/world etc.(female, age 20).
- I get into games like Bugs Bunny Lost in Time because there are so many levels and so much to solve and find that I get hooked until I can find it or solve it (female, age 20).
- Strategy games. The need to take "just one more turn" (male, age 29).
- MMORPG's are different. You add the social aspect and the ability to trade, chat, and kill each other.
- For most MMORPGs, the role-playing aspect is not equal to that of a single player one. The social aspect becomes a new intrigue for the gamer. Also there is usually no defined end, so gamers can constantly continue playing and improving (male, age 16).
- Network games because of the intensity and competitiveness between flat mates (female, age 19).
- MMPORPGs. These are like an online community that is always active. Again you become part of a group and play together. Because these games are played worldwide time zones become irrelevant(male, age 19).
- Fighting games (Street Fighter) because when playing with another person we are constantly trying to beat each other (female, age 20).
- MMORPGs. Involvement with players from other countries (male, age 44).
- MMORPGs. I play a lot of Star Wars Galaxies (that) cause me to lose track of time. I believe this is due to the nature of the game that is centered around socialisation and group work more so then solely individual achievement (male, age 21).
- Plot-driven games with exploration components. You just can't wait to see what happens next. You finish a level and then there's a cut scene—a development in the story and you have to see what comes next (female, age 25).
- First person shooters with strategic components that contribute to a narrative. I get caught up because I want to solve the current problem in order to find out more of the storyline and explore a new environment (male, age 36).
- Role Playing Games such as Zelda, Golden Sun, and Pokémon, because you can get really involved with the story line. Games with a combination of good plots, stories and action (male, age 16).

- Any game with a deep and interesting story. A game which seems to keep me anxious or anticipating the next move (male, age 20).

Results from strategies for preventing time loss

TABLE 3. STRATEGIES FOR PREVENTING TIME LOSS

| Strategy	%
Have clock, watch, mobile phone in view	21.4
Set an alarm or timer	16.1
Someone else reminds them	5.0
Setting game goals	3.6
Physical reminders (e.g., hunger)	3.2
Listen to CD or radio	2.5
Take regular breaks	1.4

Responses to Strategies that Prevent Time Loss
- Set my alarm for a certain time normally half an hour before I actually want to stop because I normally don't stop when I intend to. The other thing I do is listen to the radio because they tend to have time checks (male, age 22).
- I used to have a program to display the current time at the top of the screen during games(male, age 21).
- I try and limit how many games or levels I play. It is difficult though because the games are designed to make you want to continually progress (male, age 21).
- I play my main game in windowed mode. This way, I can see the clock all the time on my desktop (male, age 19).
- Play a music album and when it finishes I know I have been there a while!!! (male, age 18)
- Playing timed games such as Fifa (each game is 8 minutes long) (male, age 20).
- Put the TV on a timing system so it automatically goes off after a while (female, age 18).
- Starvation and thirst usually work. Angry wife is the best! (male, age 31).
- I've never even considered something like this because losing track of time while playing a good videogame is a better feeling than anything else I can think of. It's a very big reason why the weekends are the best times for me to play games (male, age 17).
- I normally turn my clock away from me. I want to get lost in the game. It's my escape (male, age 16).
- Why would I want to keep track of the time? I play games to avoid having to be bound to the confines of time. There's nothing better than playing for what you may think was an hour and finding out that 4–5 have actually passed (male, age 23).
- If I'm winning I couldn't care less what time it is. If I'm losing I think more carefully about giving up for the night (male, age 42).

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Case 2: Data and Method Analysis

1. **Below is a chart of how students' musical preferences correspond with their SAT scores. The 133 respondents were asked on Facebook.**
   a. **Write a brief 2-3 paragraph discussion analyzing the results of the study below. What were the major results of the study? What do these major results mean? Why?**
   b. **Are there any problems that you can see with this study? Why or why not?**
   c. **If you can see problems with the study, what are they? How could you conduct the study in the future to improve it?**

1. **Conduct a qualitative survey with open-ended questions of the students in your school to see if their GPA and musical choices correspond with the study below. Make sure to include a question about students' SAT scores. Also, the more people you can qualitatively survey, the more accurate your results will be– especially if you can match the 133 Facebook respondents of the original study.**

2. **Write an analysis of your qualitative data comparing it with the quantitative data below. What are the similarities? Why? What are the differences? Why?**
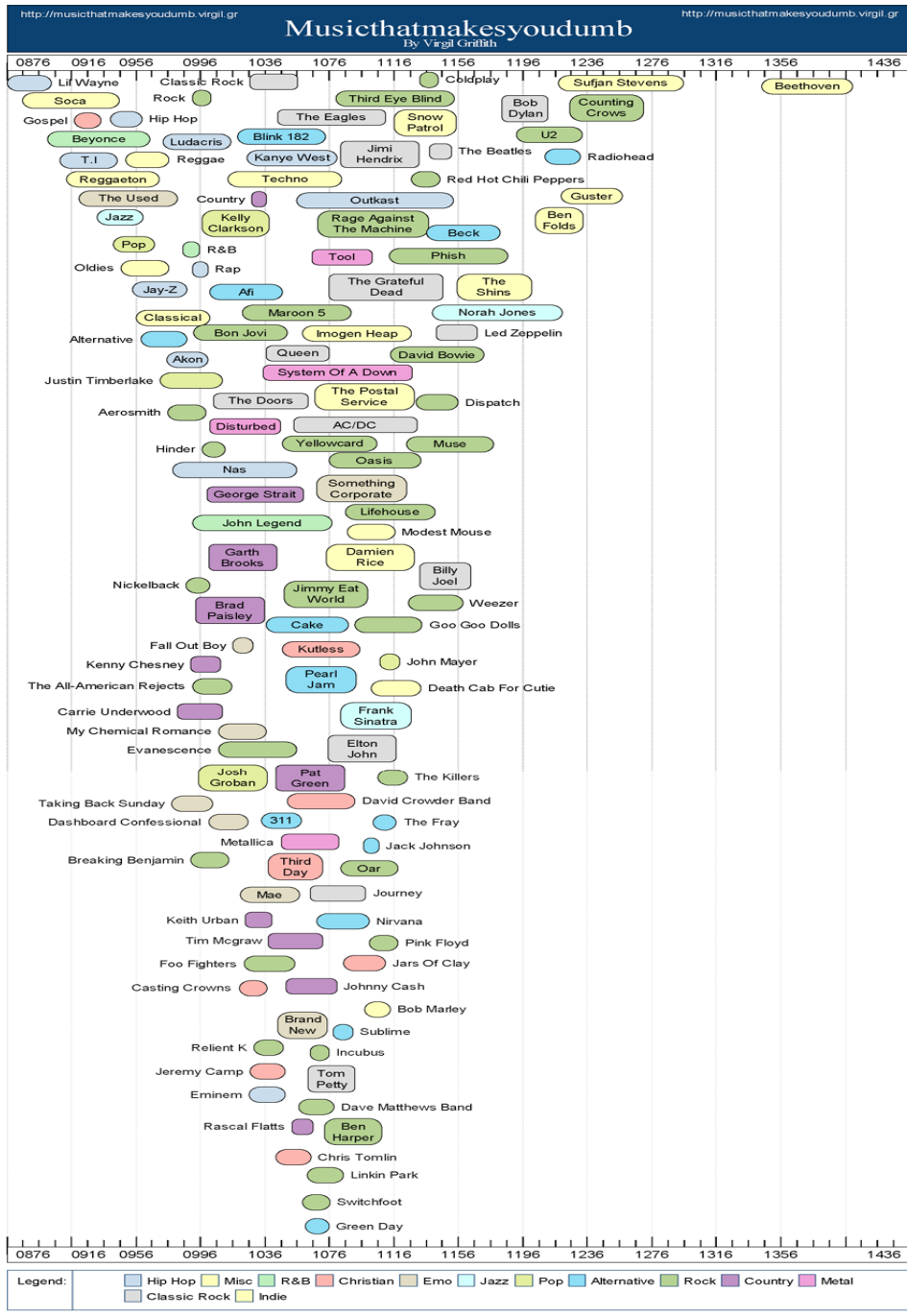
Mixed Method Exercise and Project Ideas

1) *Family History (Qualitative and Text-based)* – Write your family history. Research your family history by conducting interviews with your grandparents or other older members of your family. Then, go to the library and find microfiche of newspaper articles that also cover the same time period and historical events that your grandparents or older family members lived through and talked about in their interviews. Use these newspaper articles to further analyze your interviews.

2) *Coffee shop Market Study (Quantitative and Qualitative)* – Write a short market study of a local coffee shop. Visit a popular coffee shop near campus and count how many people order certain types of drinks. Then interview some coffee shop customers and ask them why they order the drinks they do. Also, interview a coffee shop employee on what he or she considers to be the biggest purchasing trends in coffee drinks and why he or she thinks these trends exist.

3) *Sports Study (Qualitative and Text-based)* – Write an ethnography of a local sporting event. At the sporting even, take careful observational notes of what you can see, hear, smell, feel, and (if you order anything to eat or drink) taste. After you are done, look for any trends in your observational data that you think would be interesting to learn more about, and then go to the library and find more information in books or articles about these trends you noticed in your data. Use the research you found in the library to further analyze your observational data.

References

Tabula Digita; Tabula Digita's DimensionM educational video games found to have significant, positive effect on student math achievement. (2008). *Journal of Mathematics, 47.* Retrieved from http://du.idm.oclc.org/login?url=http://search.proquest.com.du.idm.oclc.org/docview/207143896?accountid=14608

Wood, R. T., Griffiths, M. D., & Parke, A. (2007). Experiences of time loss among videogame players: An empirical study. *Cyberpsychology & Behavior, 10(*1), 38-44.

Page 333: [1] Comment [R8]   **Rebekah**   **9/21/2008 9:03:00 AM**

These three sentences clearly state the purpose of the study – they define as statements the three research questions that the study will try to answer about time loss during video game play. Notice how each research question attempts to fill or answer one of the two gaps in the previous research mentioned earlier in the paragraph.

Page 333: [2] Comment [R9]   **Rebekah**   **9/21/2008 9:07:00 AM**

The number of participants is clearly indicated. This is crucial for a quantitative study because the study becomes more statistically accurate as the number of participants increases.

Page 333: [3] Comment [R10]   **Rebekah**   **9/11/2016 4:00:00 PM**

Who the participants were is also clearly defined – the gender and age of the participants. It is important in a quantitative study to define as much as possible who the study population is because this identity will also influence the results. Notice that age and gender are two variables that probably also influence video game play the most, so they are clearly defined.

Page 333: [4] Comment [R11]   **Rebekah**   **9/21/2008 9:15:00 AM**

The third variable defined in the study's population is that they all play video games and consider themselves to be "gamers." This variable is crucial to define in the population because non-gamers will significantly alter the results. However, notice how the authors also clearly define how they found gamers, since this is one of the hardest variables to define and control for.

Page 333: [5] Comment [R14]   **Rebekah**   **9/24/2008 9:15:00 AM**

This paragraph clearly lays out how the survey was designed. Notice it uses both closed questions, which are quantitative, and open-ended questions, which are qualitative. The researchers also briefly summarized what the closed questions asked and what the qualitative questions asked. The quantitative closed questions get at what happened while the open questions get at the why – a deeper explanation of what happened. What happened can more easily asked in a closed, multiple choice survey, but the why is usually more unique and individual to the participant, so qualitative, open-ended questions are needed.

Page 334: [6] Comment [R20]   **Rebekah**   **1/24/2009 6:44:00 PM**

In typical IMRAD style, the both the raw data and raw statistical results are given for the quantitative and qualitative data in the results section. Notice that other than basic statistical averages there is very little analysis of the data. The data is simply presented. For the quantitative data, basic percentages are given. For the qualitative data, the data is presented around the basic themes that were found in it. However, the bigger picture of why these themes emerged in the qualitative data is not analyzed until the discussion section. The data will be analyzed thoroughly in the discussion section.

Page 334: [7] Comment [R21]   **Rebekah**   **9/11/2016 4:12:00 PM**

These two paragraphs above describe the statistical results of the quantitative, multiple choice data. As with all statistical data, the mean is reported first, then the standard deviation is given. Any other statistical data of interest is put in parenthesis, giving readers the choice of either ignoring it or following it up more rigorously if they want. Of course, the more detailed you are in describing your statistical analysis of your data, the more credible your results will look to other researchers reading about your data.

Chapter 10
Visual Design and Data Representation

Visual design of your document is often constrained by the rhetorical situation. Although you might prefer one font over another, or a particular alignment on the page, if your audience expects a certain visual style, then you usually have to abide by that wish.

In this chapter, we are going to focus on textual design and graphic design in research-based writing, but recognize that most of the concepts presented here can be adopted for creating web pages, designing flyers or posters, or inventing new forms of expression. We will begin with some discussion of general design theory and then move into talking more specifically about text and graphic design.

How do readers interpret visual design?

People process visual information in a particular way as a result of cultural expectations, exposure to past visual models, and cognitive and sensory limits. A great deal of research has shown that we tend to interpret visual representations based on a number of principles:

Limited capacity – People can only process between four and seven pieces of information in our working memory at a given time. Because of this, the brain has learned shortcuts. People tend to group like objects, seek enclosed patterns, and continue trends and paths in order to quickly process information. Although this all may seem overwhelming, the principle here is to make sure each representation does a very focused task. It is better to have two or more charts and graphs than it is to try and cram all of the information into one chart.

Salience – If you are trying to differentiate two items visually, you should really differentiate them. If they are too close together, people tend to see them as like objects. In a number of software packages, too many variables in one graph will require that they be represented by colors that are too similar, so that processing the differences is difficult.

Information value – People have learned through cultural exposure that certain elements in a visual representation appear in certain areas. For example, in Western cultures, we expect the left side of an image to present old information and the right to present new information. You would not make a timeline that began with the most recent year on the left and went back in time as it moved right. Additionally, the top of an image denotes the ideal and the bottom denotes the real. You will note that most graphs have descriptions of the variables and study comments in small print under a graph (see figure 11.9). Finally, the center tends to be where we focus. The margins are

the peripheral—we focus on the center, or center-top, but the peripheral acts almost subliminally or as background information.

Discussion and Practice

1. Advertisers understand the concepts of limited capacity, salience, and information value when they create ads. Figure 11.1 is a print ad for Toyota's Prius. The ad was created by Saatchi & Saatchi LA. What is being communicated in this advertisement? In what ways does observe the principals of limited capacity, salience, and information value? In what ways does it violate these principals, and does it do so effectively?
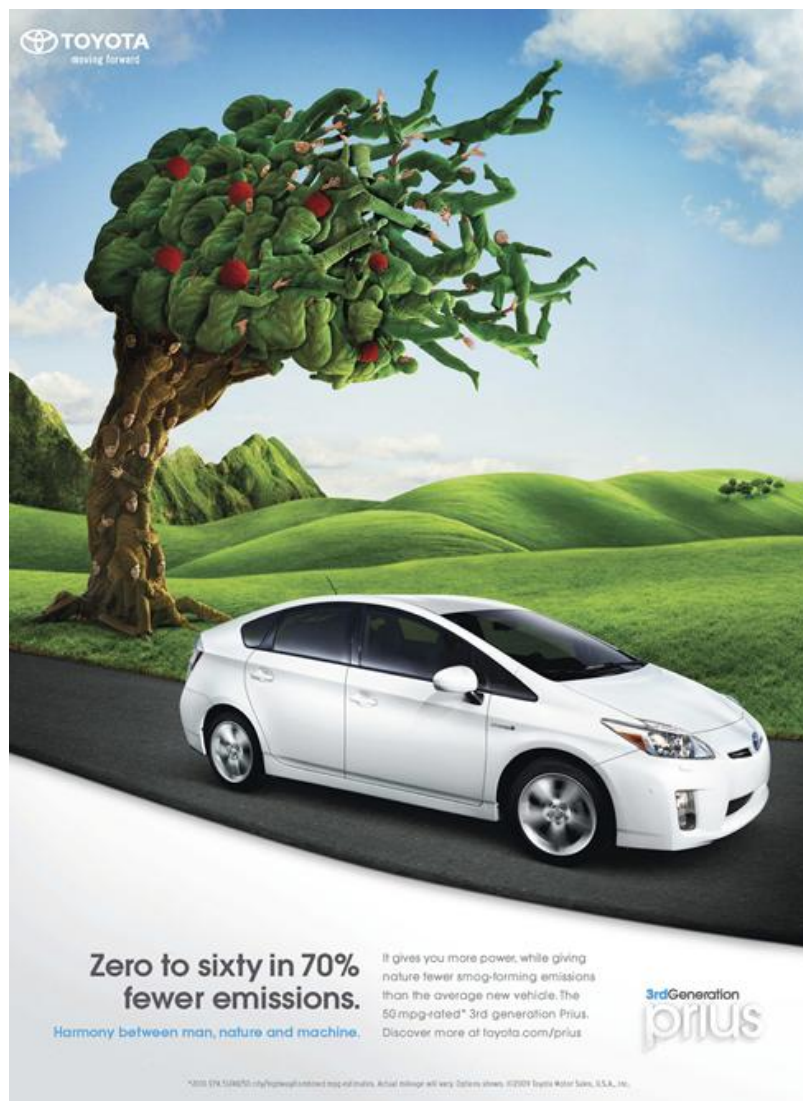

Figure 11.1. Toyota Prius: Harmony. Saatchi & Saatchi LA; Reprinted from Howard, T. (2009, May 18). Ad Track: Prius, Insight face off in battle of the green, hybrid ads. *USA Today*. Retrieved from http://www.usatoday.com/ money/advertising/adtrack/2009-05-17-prius-insight-dial_N.htm

What are some text design features?

Modern word processers have changed how we read, write, and design documents. The ease with which you can move text on the page and change the font opens up new possibilities, but it can also lead to confusion for your reader. As we have already indicated, certain cultural expectations place limits on just how creative you can be with your text. Whether that is a culture of academics at a university or professionals at a place of business, the common practices of that culture will dictate what is possible.

At probably the simplest level of text design is whether to use a serif or sans-serif font. Many print texts use serif fonts, whereas many online and screen-based texts use sans-serif fonts. Serif is a printing term that refers to a pen stroke or flourish on a letter. Figure 11.2 is an example of a serifed font, in this case, Times New Roman. A sans-serif font like Helvetica or Arial does not have these cross-strokes (see figure 11.3)

serif

Figure 11.2 Times New Roman font, serif

sans-serif

Figure 11.3 Arial font, sans-serif

Most academic writing uses serifed fonts because academic writing has a long tradition with print text. Similarly, most academic writing uses a 12-point font. In some professional writing and in some print publications, a 10-point font might be used, but generally speaking, a 12-point font is the standard. The size of a font is referred to as a point, a measure that was originally derived from a traditional printing press blocks. In modern times, a point is equal to 1/72 of an inch, so that a 72-point font will equal 1 inch on the page or screen.

When selecting a font, you are trying to balance the two principles of legibility and readability. Legibility refers to how noticeable a font is and readability is how easy it is to read. Titles, headings, and headlines should be more legible than body text, and are therefore often in sans-serif fonts. Body text should be easier to read; on the printed page, serif fonts are generally used for the body. While different fonts, boldface type, and italics can be used to call attention to headings or other parts of a text, it is generally better to keep things simple and use no more than two or three fonts or typefaces in any document.

Discussion and Practice

1. There have been studies on font readability and legibility for about 100 years, and despite these many studies, no definitive answer has been found as to whether a serif or sans-serif font is easier to read. How would you create a study of font readability and legibility? Would this be a qualitative, quantitative or text-based study? What would be your protocol?

2. Font choice conveys meaning just as much as the content of your text. Because readers expect a particular font in a particular rhetorical situation, when that font is different, the writer's content can be looked at with some skepticism—he or she didn't understand the rhetorical situation. Consider the following examples. Are any of these written in the appropriate font? How does the font change the meanings?

   - If any of the parties participating in this contract are shown not to be in their right mind, the entire agreement is automatically nullified.

   - Is Environmental Tobacco Smoke Exposure a Risk factor for Acute Gastroenteritis in Young Children?

   - SHE WALKS IN BEAUTY, LIKE THE NIGHT / OF CLOUDLESS CLIMES AND STARRY SKIES; AND ALL THAT'S BEST OF DARK AND BRIGHT / MEET IN HER ASPECT AND HER EYES.

How do you use headings?

When designing a document for an academic audience, there are also heading styles that should be observed. A heading separates one section of a text from another. Whether you are writing a lab report or a grant proposal, heading levels let you chunk text into sections and subsections so it is easier for your audience to follow. You should be consistent with each level of your headings—by level, we mean whether a section is a major or minor section.

In APA style, there are five heading levels. They are as follows:

LEVEL	FORMAT
1	**Centered, Boldface, Capitalize the Beginning of Major Words**
2	**Left-aligned, Boldface, Capitalize the Beginning of Major Words**
3	**Indented, boldface, Only capitalize first word, end with a period.**
4	***Indented, boldface, italicized, Only capitalize first word, end with a period.***
5	*Indented, italicized, all lowercase heading, end with a period.*

Table 11.1. APA Style heading levels.

Figure 11.4 shows a sample page with at least three APA style heading levels:

<div style="border:1px solid #000;padding:1em;">

Method

In order to measure whether there were any gender differences in study preferences of college students, we administered a 10-item questionnaire at a local community college campus.

Participants

Females. A convenience sample of 75 female students were given the survey on a Monday during the 5th week of the 16th week term.

Males. A convenience sample of 50 male students were given the survey on a Monday during the 5th week of the 16th week term.
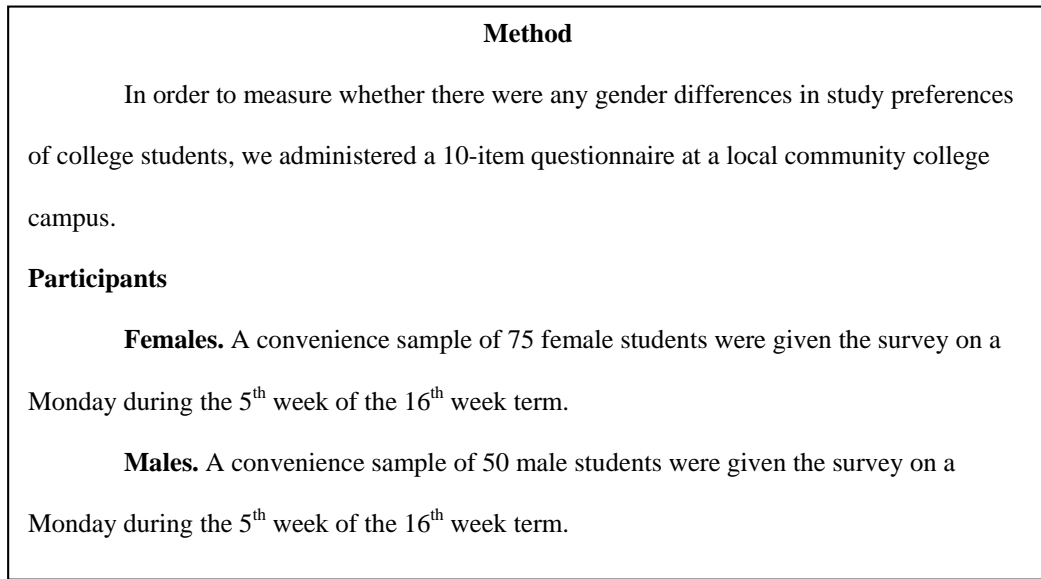
</div>

Figure 11.4. Sample Method section with three levels of APA style headings.

MLA style does not have a standard heading style; the *MLA Style Manual and Guide to Scholarly Publication* asserts that your heading design depends on the rhetorical situation. In cases where the heading style expected of you as a writer and researcher is unclear, either use the APA style of headings or one that clearly shows a relationship from the standard text on a screen or page. For example, a top level heading should use a Larger Font, ALL CAPS or **Bold**, a second level heading might use underline or *italics*. Whatever style you choose for headings and subheadings, make sure to be consistent throughout your document.

What are some graphic design features?

Research writing often relies on the visual representation of data and reproduction of images and artifacts to more fully express results or an argument. The use of visuals is a rhetorical choice that can either help better explain complex data or simplify a complex relationship. We might classify three types of visuals that you would include in your writing: **ornaments**, **artifacts**, and **data representations**.

Figure 11.5. Blueberries Reprinted from *New York Times*, image by Steven Senne/Associated Press

Ornaments are visuals such as pictures or graphics that add context or additional information but are not vital to your argument. They are not referred to in the text, but instead, exist in addition to the text. Many newspaper and magazine articles use ornamental visuals to show what a context or person looks like. You will rarely see such visuals in academic research-based writing because such images usually are appeals to pathos—they are intended to evoke an emotional response. For example, in a story in the New York Times about preserving blueberries, the editor or writer used a picture of blueberries taken by Steven Senne

(figure 11.5). The writer, Harold McGee, did not refer to the picture once in the text. It is just attached to the story as a way to evoke an emotional response, to connect these fresh blueberries with the story on how to preserve that freshness.

You can also use ornaments in document design to separate sections or to organize information in a particular way. For example, you might use a straight line to separate two related sections, and a double-line to create a split between two different sections. In the earliest days of book design in the 13th and 14th centuries when each book was hand drawn by an individual, ornamental letters would not only separate major sections, but each paragraph, and the empty spaces were filled with designs depicting fantastic creatures or a rendering related to the text. Figure 11.6 is a page from *Luttrell Psalter*, a 14th century book that is supposed to depict images of everyday life in medieval Europe. Notice how all the graphical ornaments separate the text, each sub-section begins with an ornamental letter, and each major section begins with an even larger ornamental letter.

Figure 11.6. Luttrell Psalter, pp. 29-30. Reprinted from the British Library, copyright 2009
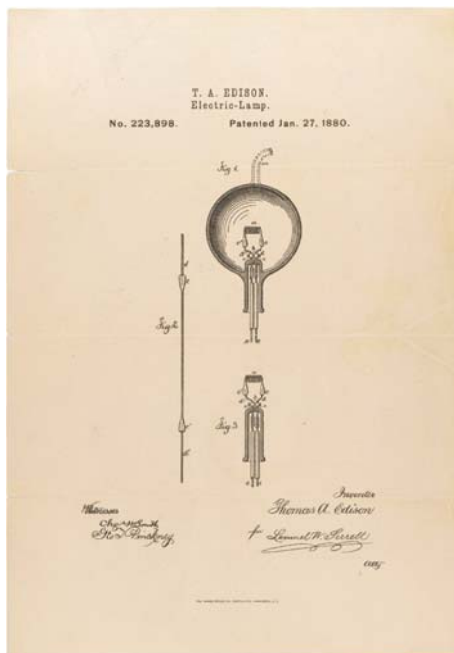
Figure 11.7. Thomas Edison's patent drawing for an improvement in electric lamps, patented January 27, 1880. Reprinted from Records of the Patent and Trademark Office, National Archives.

Artifacts are images of documents, art, or objects that you are analyzing in your text and that you specifically refer to in your text. For example, if you were writing a rhetorical analysis of a print advertisement, you would copy that advertisement in your document so your reader would be able to see the elements that you are referring to. In each of the figures of this chapter, we are using them as artifacts.

When you insert or paste artifacts into your document, you might even modify those images by adding lines or arrows pointing to key areas, or by zooming or blurring certain parts to focus on an element. In qualitative or observational research, you might include images of the setting or images of specific objects like menus, letters, seating arrangements, decorations, or any other relevant information to your study.

In documents such as grants or patents, artifacts are used to show what an object looks like or will look like

when produced. For example, figure 11.7 is Thomas Edison's original patent for the light bulb.

Data representations are images or figures such as graphs, tables, charts, and matrices that depict data in forms different than their original state. These representations are very common to research-based writing because they help the researcher better explain complex data and relationships within that data. Quantitative data lends itself well to visual representations, such as in tables, charts, and graphs, but every research method can use data representations. For example, in business writing, complex strategies or models based on text-based research can be explained with visual flowcharts, and in qualitative research, tables can help show relationships between interview and observational data.

The problem with these data representations is that there are many ways that such graphics can be interpreted and misinterpreted. After all, you are transforming your data into a visual metaphor—it is a representation. To be sure, all images on the page or screen are representations. For example, figure 11.7 is only a drawing of Thomas Edison's light bulb, not the actual light bulb, and figure 11.6 is only a picture of the stiff, musty pages of the *Luttrell Psalter* under lock and key at the British Library. What we mean here specifically is that transforming data from a number or sentence into a colorful slice of a pie chart or the strict columns of a table re-presents information in a new way, and as such, it can be misinterpreted. Spend the extra time creating a chart that is meaningful to your audience. Although your computer has many options for creating tables, charts, graphs, and other visual representations of data, the defaults don't always produce a visual that is easy for your audience to understand. You should spend time thinking about the color schemes, uniqueness, and ease of reading of your data representation.

Discussion and Practice

1. Think for a moment about a favorite publication, whether on the web or in print. How does this publication treat visual design? Do they use ornaments, artifacts, or data representations? How do these visuals make appeals to ethos, pathos, or logos? In what ways do these images identify with readers?
2. Web-based publications share many similarities and differences with print-based publications both in visual and textual designs. What are some of these similarities and differences? What does print allow as far as design is concerned that web-based publications cannot match? What does web-based design offer that print cannot match?
   a. Compare a publication that appears on both the web and in print. How are they similar in design or different?
   b. If you were designing this textbook for the web and to make it accessible for your peers, what design choices would you make?

What are some common visual data representations?

The three most common visual data representations in research-based writing are **tables**, **diagrams**, and **graphs**. Each has their purpose. In the following examples, we present either

data or original graphs and diagrams to demonstrate how data can be represented. We use these illustrations not as the best examples but to show you some possibilities and problems with how they might and have been used.

When do you use a table?

A table organizes information by columns and rows, and is best used when you want to preserve the precise or absolute measures from your data. It is also a good way to organize raw data. Although table 11.2 is a very small table, it clearly shows a trend, and if we had the data, it could be broken down even further by music genre, gender, and student level (high school, undergraduate, graduate).

	Silence	Music
Words per minute	18.8	17.8

Table 11.2 Writing speed with and without music
Source: Ransdell, S. E. & Gilroy, L. (2001) The effects of background music on word processed writing. *Computers in Human Behavior 17*, 141-148

Table 11.2 is similar to the default tables that you would see in many professional and web-based documents. However, in most academic writing, the table is designed differently. Both MLA and APA style use an open table design as shown in table 11.3.

Note that table 11.3 is double spaced as per the rest of your text in APA/MLA style. Creating a table in APA and MLA style can be done with a word processor's table function much like table 11.2. Create your table, and insert your data into the columns and cells, then erase the borders on the sides and between datasets. If you are unfamiliar with your word processor's table function, you can simply make a table by using the hyphen/minus key to make lines, and then use the tab key to organize your data into columns.

Discussion and Practice

1. Consider both table 11.2 and 11.3. What are the advantages and disadvantages of representing data in a table format based on these examples?

When do you use a diagram?

A diagram is a 2- or 3-dimensional visual representation of a model or process. Diagrams are useful in trying to represent non-precise measures, qualitative information, or methods. Figure 11.8 is a diagram that represents a model of the writing process:
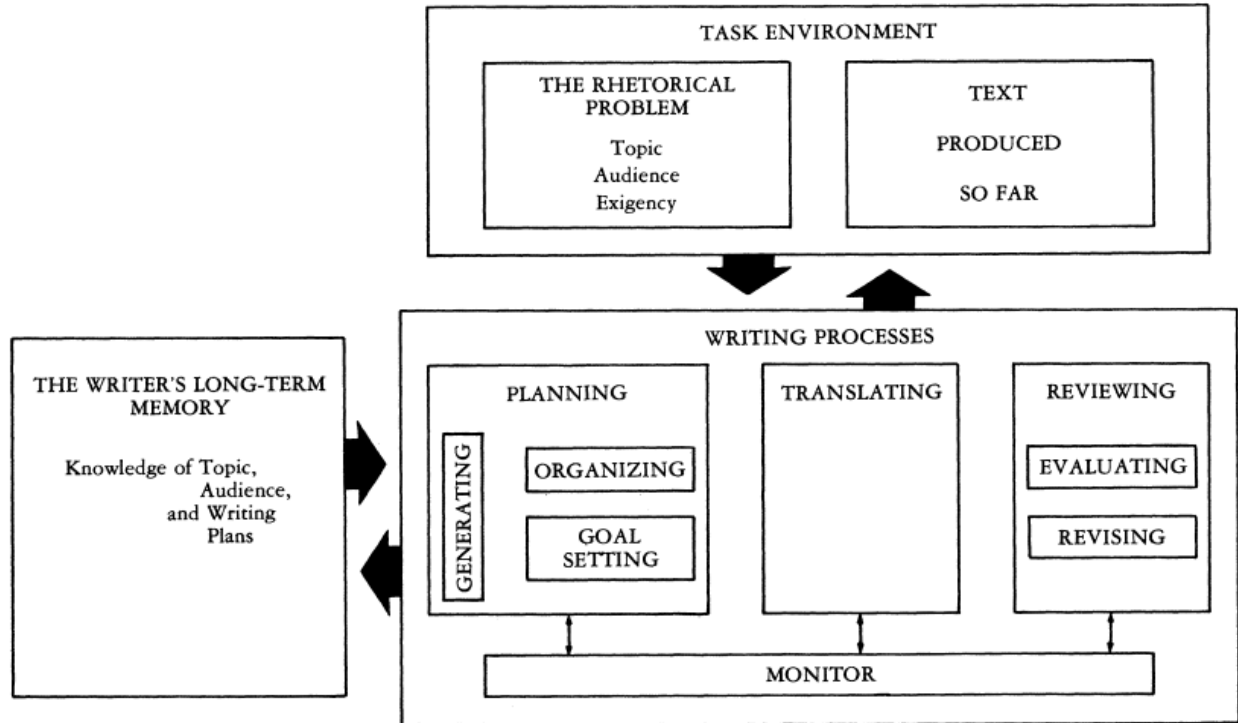
Figure 11.8. Visual model of the writing process.
    Reprinted from Flower, Linda and Hayes, John R., (1981). A cognitive process theory of writing. *College Composition and Communication 32*(4), 365-387.

Discussion and Practice

1. Diagrams are good for explaining complex models or processes. In figure 11.8, Flower and Hayes created a model of the writing process based on a study with students. Think of your own writing process. Does this diagram match your writing process? Create a diagram of your writing process. Once you have completed it, work with at least 5 other peers to create a writing process diagram that takes into account all of your individual diagrams. Share this diagram with the class.

When do you use a chart or graph?

In many of the sciences, a graph represents data points plotted against two axes, as in a line graph. A chart is used to refer to more basic data representations, such as a pie chart. However, you will find that these two terms are used interchangeably in many writing situations. Regardless, charts and graphs are best used when trying to represent a general comparison or

trend in data. They are not good for visualizing precise measurements. The three most common are **pie graphs**, **bar graphs**, and **line graphs**.

How do you use a pie graph?

Pie graphs are useful when you are representing how a single population or sample can be separated by various variables. Each wedge of the pie represents a percentage of that population or sample that has represents that particular variable. The figure 11.9 is a pie chart that represents the number of Bachelor's degrees granted to students in 2013-2014 by major.
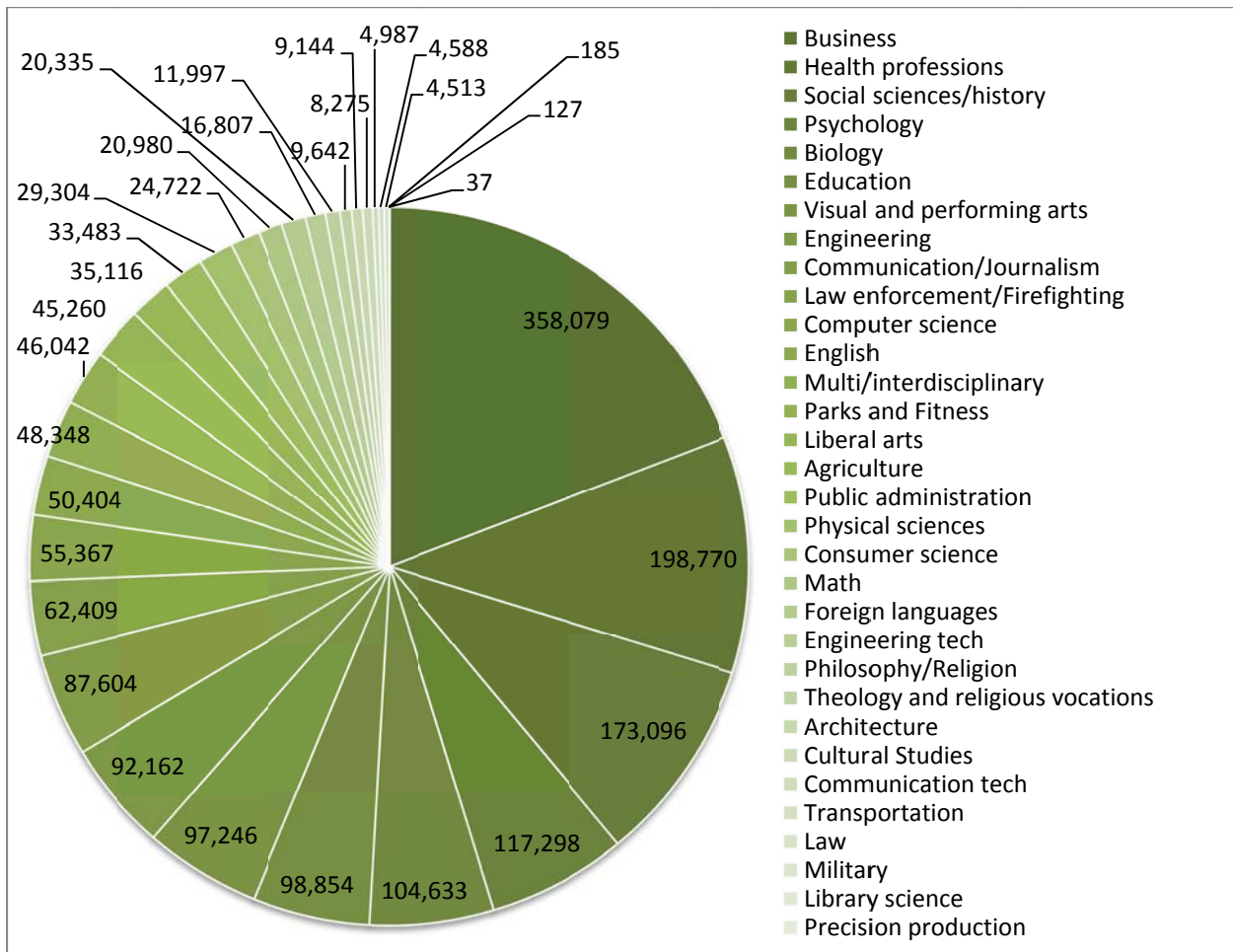
Figure 11.9. Total number of bachelor's degrees awarded by degree-granting institutions, 2013-2014
   Source: Bachelor's degrees conferred by postsecondary institutions, by field of study, Table 322.10, NCES.
   Retrieved from http://nces.ed.gov/programs/digest/d15/tables/dt15_322.10.asp

Discussion and Practice

1. Look at the pie graph representing college degrees conferred (figure 11.9). Considering the ideas of limited capacity, salience, and information value, is this a successful pie graph? How would you improve it?

_____

How do you use a bar graph?

Bar graphs are useful when you want to show the amounts of two or more variables, usually separate and not continuous. Bar graphs can represent everything from nominal to ratio data. The bar graph in figure 11.10 is from the National Assessment of Adult Literacy. They measured literacy in three areas, and the bar represents a literacy score that a given population attained on a literacy test. Because these are discrete scores, meaning that participants were not judged every day or even every year on their literacy, a bar graph is better than a line graph.
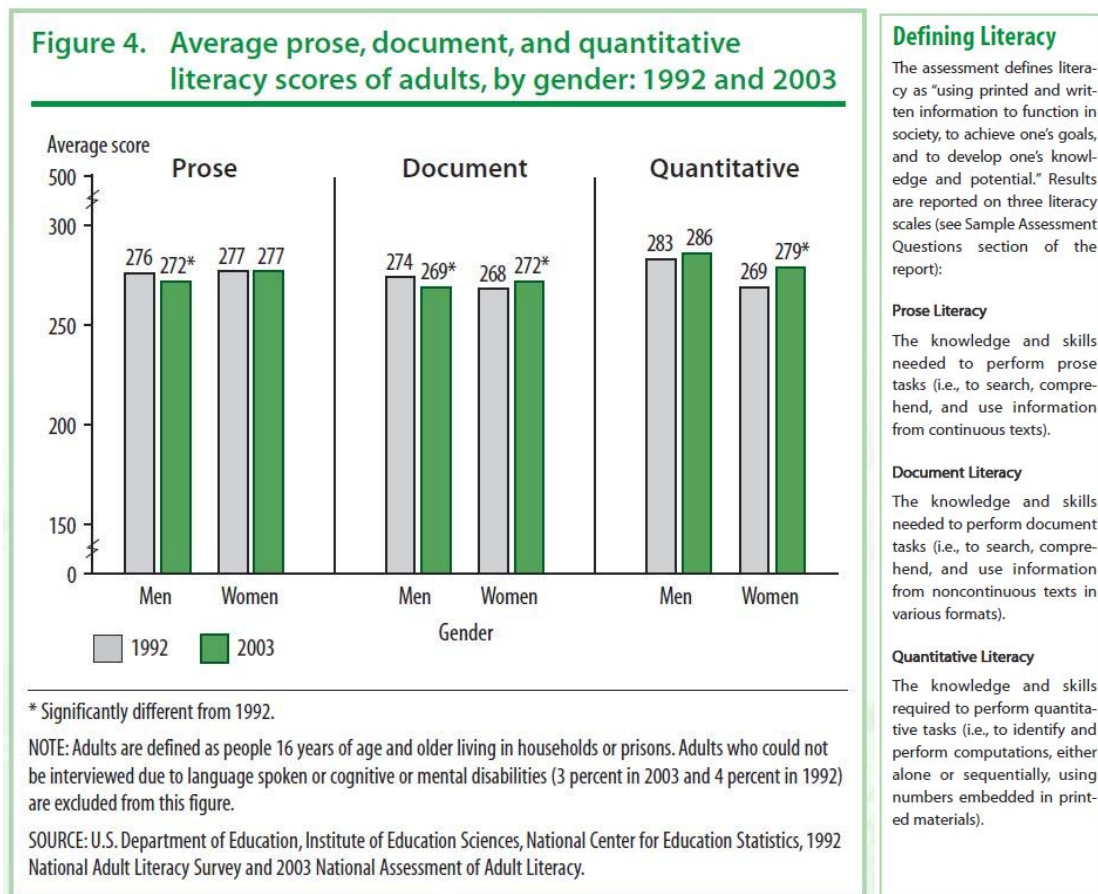
Figure 11.10. Average prose, document, and quantitative literacy scores, by gender, 1992 and 2003. Reprinted from National Assessment of Adult Literacy, Figure 4. A First Look at the Literacy of America's Adults in the 21st Century. *National Center for Educational Statistics*, NCES 2006-470. Retrieved from http://nces.ed.gov/NAAL/PDF/2006470.pdf

Discussion and Practice

1. The bar graph in figure 11.10 is from the National Assessment of Adult Literacy. Participants were given a test on seven different documents, and then asked content questions; a maximum score of 500 is possible. They display the results in a bar graph. Is this an effective visual data representation for their data? What are its strengths? What are its weaknesses?

How do you use a line graph?

Like bar graphs, line graphs are useful for showing amounts of two or more variables, but they are usually continuous, so can only be used with interval or ratio data. Figure 11.11 is a line graph looking at trends in bachelor's degrees awarded to both men and women. Note how line graphs are useful in showing time-based trends, since time is ratio data.
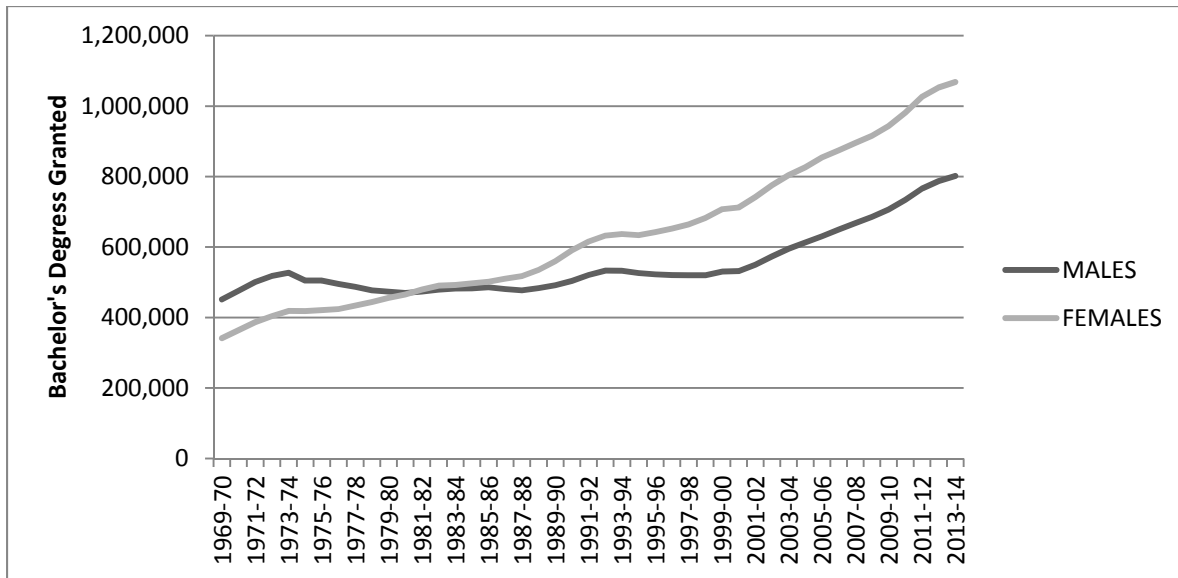
Figure 11.11. Bachelor's degrees conferred by gender and year.
Source: Bachelor's degrees conferred by degree-granting institutions, Table 322.20. Digest of Education Statistics, NCES. Retrieved from http://nces.ed.gov/programs/digest/d15/tables/dt15_322.20.asp

How do you use a mixed visual?

Transforming visual data into a standard graph or diagram as we have just described is often the best strategy when writing for an academic audience. However, some rhetorical situations call for more creative transformations of data. One of the more popular uses of mixed visuals is the **infographic**, a portmanteau of information graphics. Sometimes infographics are mostly ornamental; while visually fun, they can distract the
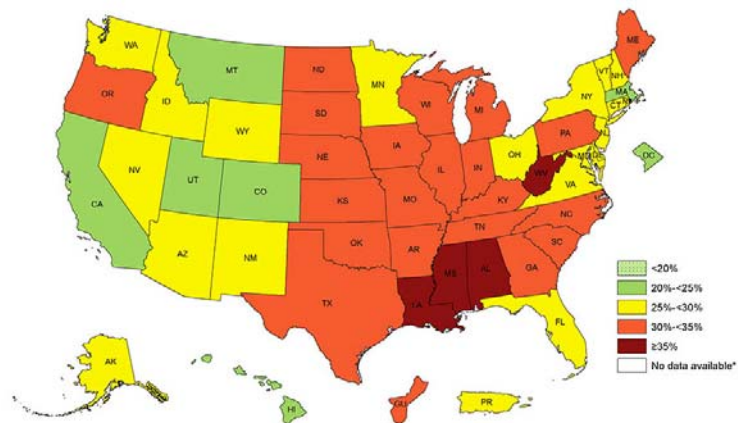
Figure 11.12. State BMI averages from CDC's Behavioral Risk Factor Surveillance System (BRFSS). Prevalence of Self-Reported Obesity Among U.S. Adults by State and Territory, BRFSS, 2015
http://www.cdc.gov/obesity/data/prevalence-maps.html
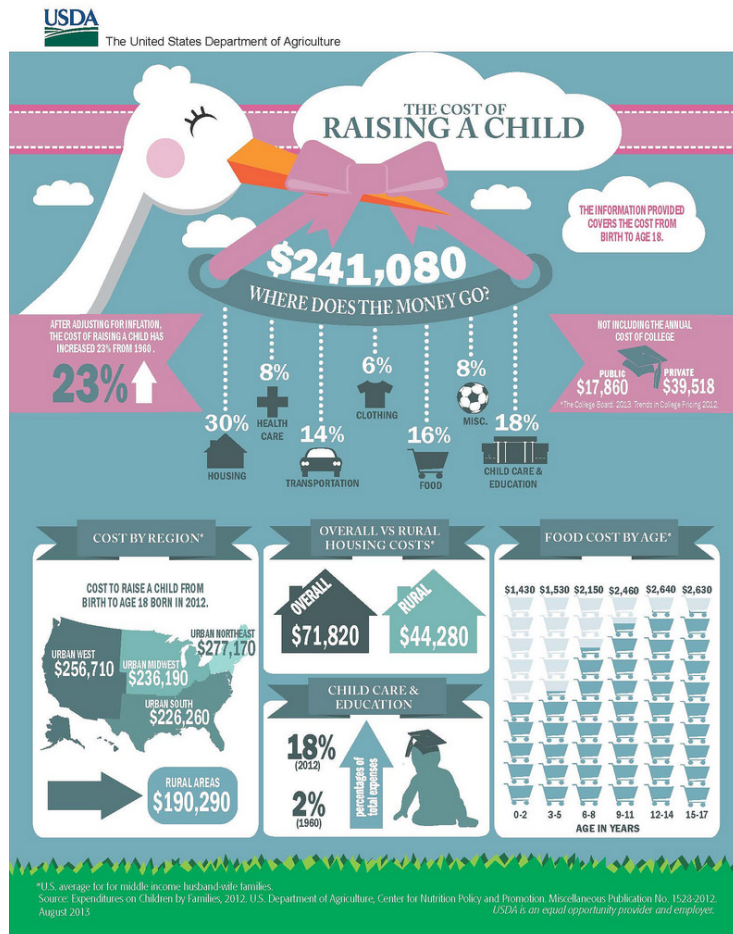
Figure 11.13. The Cost of Raising a Child. United State Department of Agriculture, 9 August 2013. Retrieved from https://www.flickr.com/photos/usdagov/9475073356.

reader. Simple infographics, like figure 11.12, a data map of the CDC's Body Mass Index data displaying the average BMI of state residents transposed on a map of the United States, clearly convey a single argument. In some ways, this is a like a pie chart or bar graph, but the visual display of data is much better than either of those alone. Other, more complex infographics, like figure 11.13 of the cost of raising a child in 2013, uses ornament and data visualization to convey multiple arguments.

These are the basic charts and visual representations of data that you should be familiar with. However, there are many more. Ralph Lengler and Martin J. Eppler at *Visual Literacy.org* have created a periodic table for data visualization (http://www.visual-literacy.org/periodic_table/periodic_table.html). Certain writing situations might require one or more of these methods of visualization.

Discussion and Practice

1. Return to Table 11.3, the data from a study on the smoking habits of college females. Construct a pie graph, bar graph, line graph, or infographic using some or all of the data in that table. What is lost in the transformation? What is gained?
2. Diagrams can be used to interpret quantitative data as well as qualitative and text-based data. Figure 11.11 shows a trend of more females than males earning college bachelor's degrees. What do you think are the reasons for this trend? Based on this data, work with a peer to create a visual that interprets some of these reasons.

How do you choose the right visual for your audience?

If you are writing for a public or popular audience, advanced statistical analyses, unfamiliar measurement units (see figure 11.10), or extensive information might be too much. Although certain types of data can be obscured in infographics so prevalent on the internet, they are

appealing for many audiences (see figure 11.13). In contrast, if writing a business plan, an academic paper, or a grant proposal, you want to avoid fancy graphical representations that could confuse your audience. Finally, don't expect the tool to do the work for you. If using a bar or line graph, you have to compute measures of central tendency or absolute numbers for your data—you cannot just "select all" in a software package and expect the program to do the work for you. In a 2012 Quora, experts in the field of data visualization revealed that professional infographics like we see on the internet can take anywhere from a week to month to produce, and that is by large teams of professional designers.

How do you compose a visual?

Like research and writing, it is best to approach the design of visual representations of data as a process of invention, drafting and revision. Although there are many tools that can help you present information, your own imagination and what you have seen in the past should guide you first and foremost when considering how to represent data. You might consider these three stages as important to drafting a good visual for your data.

1. *Create a rough draft first* – The biggest mistake people make is that they expect computer software tools to do all the work for them, and they tend to go to the tool without first thinking of what they want to represent, and how they want it to look. You should draft your table, chart or graph on paper first, even as a rudimentary set of lines and squiggles so you can see what it should look like.
2. *Share a draft with a peer* – Having a peer look over your visual representation of your data can help you see what is working and what is not. One strategy that can be useful might be to have your peer describe the major findings from the table in his or her own language. This will let you know what is most salient and also what might be confusing.
3. *Create more than you think you need* – Rather than putting all your data into one table or figure, create multiple visuals that display your findings, and look for the most important details to use for your final version. Selecting the right visual is tied to the rhetorical situation and your audience, but having some backups and some alternatives will allow you to be better prepared if your professor, manager, or publication want you to select a different visual.
4. *Save Backups* – when transforming data into a visual, it is a good idea to keep backups of your data and tables or figures that seem particularly effective. There's nothing more frustrating than losing valuable information or a great deal of work to a misstep or computer failure.

Most word processing programs allow you to create and insert diagrams and charts, though their design capabilities may be limited. Microsoft Excel includes a Chart Wizard that can help you create visual representations of your data, and Google Sheets has an Explore feature that allows you to try different chart types. You might also take advantage of online tools to create graphs such as the National Center for Education Statistics user-friendly "Create A Graph" tool (http://nces.ed.gov/nceskids/createAgraph/).

As you create visuals for your work, also think about issues of size and aspect ratio when placing it in your document. Too large an image will take up too much room on the page, and too small an image will hide its details. You should avoid stretching an image that was originally very small to make it large as it will not look as good. Similarly, you should preserve the aspect ratio, or the ratio of length to width of a visual so that it does not distort the visual. You can usually preserve the aspect ratio when resizing an image in a word processor by holding down the shift key when resizing from the corner of the visual.
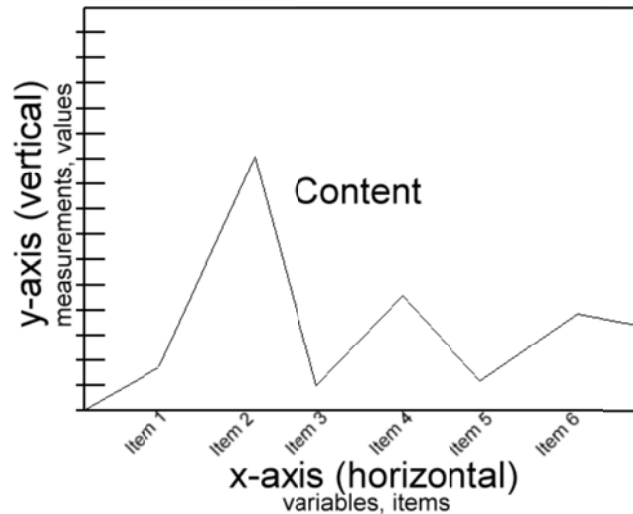
Figure 11.12. Elements of a graph

How should you label and title your visuals?

All visuals should have a title, and any data representations should also include appropriate labels. A label refers to a specific part of your visual, whether it is a visual contrast or an appeal to pathos in a visual advertisement or a data point in a line graph. It is important to label the various parts so that your audience will know how to read the visual element. For example, we have labeled figure 11.12 with the various parts of a typical graph. The y- and x-axes should always be labeled, as should the scale or numbers you are using. If you use different colors or patterns to represent variables, that should also be explained in a legend for the graph. Make sure that readers can easily tell what is being measured and what units the numbers represent. Are you presenting counts or percentages? Miles or kilometers? Number of days per week or month? Clear labels avoid confusion. While certain writing situations allow you to be more creative with how you label your graph, most academic writing situations require you to follow a particular style. Look for examples in publications in the field you are writing for or ask your professor what they expect in visual representations of data.

Label /	Figure	Table
Label abbreviation	Fig. #.	Table #
Consists of	Graphs, diagrams, maps, images	Data organized in columns and rows
Label location	Below the figure	Above the table
Caption	With label, below figure, describes figure	Below table, describes abbreviations

Table 11.4. Differences between figure and table labels and captions.

A title or what is sometimes called a caption usually appears below or above your visual and provides valuable information about that visual. The most common format is to provide a title,

_____

followed by a brief description, then its source. This is a common practice both in print and on the Internet. For example, every image at Wikipedia includes its description and a link to its source. You will notice that every table, image, or graph in this textbook has a caption underneath it. These captions allow you to refer to your visual clearly in your text.

Any visual that was *not* created by you as author or researcher should also list its source. If just the data is from another source, then write "Source:" before the citation, and if the entire image is from another source, then write "Reprinted from" before the citation. In either case, a separate entry should also appear on your Works Cited or References page.

How can you fairly use images from other sources?

In the United States, any image, text, or video is copyrighted as soon as it is fixed to a medium. Pictures that you find on the Internet are usually owned by somebody else, so you cannot use those images without their permission. Of course, copyright law has a provision called fair use that allows you to use limited amounts of a text or visual work for educational uses or criticism, so most of the work that you are doing in your classes is protected. However, be careful with multimodal projects that will reach an audience outside your university or class. For example, it is your responsibility to obtain permission from a copyright owner for a web project that uses a significant amount of an image, audio, or video from another source because the web reaches beyond the limits of that educational setting.

Although you do not have to attain permission to copy an image from *Sports Illustrated* that you are writing a rhetorical analysis about, you still need to cite it as you would any other text. As we have discussed in this chapter already, your caption of the image should clearly state where any image, figure, or data came from.

There are two special circumstances with regard to copyrights: **Creative Commons** and **Public Domain**.

Creative Commons (http://creativecommons.org) was created to provide authors and artists more control over what could be done with their works. A Creative Commons license allows for the author to decide whether his or her work is protected through four features. Table 11.5 from the Creative Commons website lists these features. Thus, a work could be given both the Attribution and Noncommerical designation, meaning that you can do whatever you want with the work, as long as you give the original author credit through a citation and you do not charge money for the work. Wikipedia has adopted an Attribution, Share Alike license for its articles, which means that you can use what you want from Wikipedia as long as you attribute it and apply the same privileges to that new work. A number of academic journals have also adopted a creative commons license.

Most works use a standard copyright, so Creative Commons only applies when a work specifically displays that designation. You can find Creative Commons works by going to the Creative Commons website, or by searching for websites that have Creative Commons options,

such as Flickr (http://www.flickr.com/creativecommons/). Some other sites, such as Stock.XCHNG (http://www.sxc.hu/), house photos and illustrations that can be used royalty-free with limited restrictions. It is your responsibility to ensure you are using images within the limitations set by their copyright holders, and you should always give credit to avoid plagiarism or copyright infringement and to build your ethos as a researcher.

Attribution	**Share Alike**	**Noncommercial**	**No Derivative Works**
You let others copy, distribute, display, and perform your copyrighted work — and derivative works based upon it — but only if they give credit the way you request.	You allow others to distribute derivative works only under a license identical to the license that governs your work.	You let others copy, distribute, display, and perform your work — and derivative works based upon it — but for noncommercial purposes only.	You let others copy, distribute, display, and perform only verbatim copies of your work, not derivative works based upon it.

Table 11.5. Creative Commons license options. Reprinted from http://creativecommons.org/about/licenses

The other special copyright consideration is that of works in the public domain. Public domain works are owned by the public, and you use them freely without permission, although in most academic works you should still provide a citation for them. Generally, United States government works and any work that is over 120 years old should be in the public domain. Unfortunately, determining exactly what is in the public domain or not can be confusing as laws are continually passed that change the limits and scope of when public domain goes into effect on a given work. Also, representations of a work are under a different copyright than the original—for example, even though *Luttrell Psalter* is well over 120 years old, we used an image of it from the British Library, an image it owns, so we had to attain permission to use it for this textbook. You should never assume a work is in the public domain, even if you think it should be—always refer to the author for works that are not clearly marked.

You can find public domain works by adding the phrase in quotes to your search term, or using websites that indicate they use public domain images; for example, the National Archives website (http://www.archives.gov/) clearly states that images and documents on their website are in the public domain unless indicated otherwise. One special note should be made about Wikipedia—although they strive to use only public domain images, there are occasional images on Wikipedia that are not in the public domain. Do not assume an image at Wikipedia is in the public domain even though the website says so. Refer to the primary author of the image by clicking on it and then following the link to its source.

A final note on using visuals

You should always think rhetorically about using visuals in your texts. Will your font convey the right tone? Will a photo or diagram enhance your readers' understanding of a concept? Will a table or graph present your data and connections more clearly than a textual summary?

Choose visual elements to supplement or enhance your text, not just because they are pretty or take up space.

As mentioned earlier, visual design is a process, and you should not create or insert visuals haphazardly at the last minute. On the other hand, avoid tinkering with the design of a document too early in the drafting and revision process when your attention should be devoted to research and content development. Obsessing over the color, size, or alignment of a visual will be a waste of time if you end up cutting it, and most professors will weigh the substance of your argument more heavily than the polish of your graphic design. The visual design of a report or article *is* important, however, and paying attention to graphic elements can increase the impact of your research and writing.

Chapter 11
Documenting Sources

No doubt, one of the more confusing parts of doing research for students is the number of different ways to cite or document sources. Although we would like to say that it gets easier as time goes on, you will probably end up having to learn many different styles throughout your education and beyond. Different disciplines and publications follow particular citation conventions, and many large corporations like the *New York Times* and Microsoft have their own individual style guides that employees must use when writing on behalf of those companies. In this chapter, rather than provide an exhaustive list of every citation style for every type of source that you may come across, we are going to focus on explaining why you have to document sources. We think that if you understand more about why you have to include certain information, you might be more able to respond to the many different documentation styles that you will encounter.

How many different citation and documentation styles are there?

The number of styles and variation on those styles is great. Even publications that adopt a particular style will have their own interpretation, which is why the best advice is to learn one or two styles well and then refer to the style manuals or guides of a publication, business, or professor for individual work. Although MLA or APA style are used often for writing in school courses, there haven't been any careful studies as to what style is the most common, which is easiest for both audiences and writers, or which ones can respond the best to changes in technology and research.

Although we cannot cover all citation styles here, we wanted to provide a brief overview of some of the many styles out there and where they can be found:

> APA (American Psychological Association) – *The Publication Manual of the American Psychological Association*, 6th edition (July 2009), was originally designed for professional scholarship and research in psychology. Later, it was adopted as a common style in colleges for students writing in the social sciences. It primarily uses last name and year for parenthetical citation within the document. Citing less academic sources in APA style, such as obscure websites and other, non-published documents is more difficult since the rhetorical situations in which this style is used usually require traditional, academic sources. The American Sociology Association style is very similar to APA.

> CMS (Chicago Manual of Style) or Turabian – Like other style guides, *The Chicago Manual of Style*, 16th edition (August, 2010), provides information not just on how to document sources, but also on common usage and style rules for an entire article. Although usually used interchangeably, CMS and Turabian have a few slight differences,

but they aren't noteworthy for most works. What separates these styles from the others is that CMS uses either parenthetical citation like APA and MLA or a footnote system. Many book publishers have adopted CMS style. It is also found often in anthropology and history.

CSE (Council of Science Editors) – The CSE style was devised 50 years ago by the National Science Foundation, and has since been adopted with some variation by many journals in the medical and biological sciences. *Scientific Style and Format: The CSE Manual for Authors, Editors, and Publishers*, 8thth edition (May 2014) uses a numbered endnote system, but variations of this style that use author/year parenthetical citations can also be found. The American Medical Association and National Library of Medicine styles are based on CSE style.

MLA (Modern Language Association) – The *MLA Handbook*, 8th Edition (April 2016) is often used in writing courses because it is the style most familiar to many writing teachers. MLA style provides many options for citing non-standard sources, and the newest edition is fairly easy to master. Although common in the humanities and undergraduate education, it is not widely used in disciplines outside of the humanities.

What are the rhetorical implications of using different citation styles?

Following a particular style guide is about more than knowing how to order and punctuate your citations. Although this chapter is devoted to documenting your sources, we would like to point out that the variety of style guides available also refer to things like page margins, heading and subheading formats, capitalization patterns, spacing, abbreviations, use of contractions, and the list goes on. Although some rules may seem arbitrary, current formatting and citation styles have developed over time to address particular needs for researchers. Following the conventions expected by a specific audience is another way to adapt to your rhetorical situation.

When it comes to writing about your research, the style you follow shapes how you present material within your text as well as how you cite others' research. For example, styles like CSE and APA are common in fields that have traditionally foregrounded results and minimized the role of individual researchers. Literature reviews in these fields use summary more than direct quotation (in fact, CSE style discourages direct quotations). Source authors are cited by last name and first initial only, and it is common to present a number of sources in one parenthetical citation to back up a generalization about previous research. When writing about your own research or previous studies, these styles call for the past tense, which indicates that the research has already been completed. Dates are always included because current sources are valued in the sciences. Consider the following passage from an APA-style article about greenhouse emissions and deforestation in Brazil:

Three recent estimates of carbon emissions from tropical deforestation (Achard et al., 2002, DeFries et al., 2002, and Houghton, 2003a) used nearly identical data for carbon stocks and varied only in their rates of deforestation. Uncertainty in estimates of carbon stocks in tropical forests (Houghton et al., 2001], Eva et al., 2003, Fearnside and Laurance, 2003], and Fearnside and Laurance, 2004) make the range of possible emissions of carbon from tropical deforestation and degradation very broad.

In contrast, MLA style is usually used in the humanities, and especially in disciplines that study literature and language. These fields generally value the individual author and his or her specific words. Thus, MLA makes frequent use of direct quotations, an author's last name and page numbers are provided in the text to help readers locate an exact passage, and authors' full names are included in the works cited. In MLA style, texts are usually referred to in the present tense (what is sometimes called the literary present or present habitual) because the focus is on the text (which is experienced each time it is read or viewed) rather than a completed study that was conducted in the past. Contrast the following passage from an MLA-style article about the influence of Nietzsche on Chopin's *The Awakening* with the APA-style passage above.

We should remember that from before Kate Chopin's birth in 1851, her hometown of St. Louis bore a marked German identity. St. Louis historian J. Thomas Sharf dates the period of greatest German immigration into the city from the revolutionary year 1848, noting that the politically liberal newcomers did not always blend in easily with the original St. Louisans, who were "conservative in politics, opinions, and morals." German immigrants, for example, overwhelmingly favored abolition during the Civil War and found themselves aligned politically with what Sharf terms the "New England element in St. Louis." Sharf adds that eventually, and not without bitter social and political struggle, this coalition came to represent "many of the thriftiest, most enterprising, and most useful citizens of the place, [who] built the railroads, fostered industry and developed trade in every direction" (1591).

Because these differences have rhetorical effects, you should look to your audience first and foremost when deciding which style guide to follow and how to document your sources. If a boss or professor doesn't provide you with a particular style guide, pick a style you are familiar with that you think will be appropriate for your audience, then use it consistently. It might not seem like a big deal, but using a haphazard style and just pasting a bulleted list of URLS at the end of a report can hurt your ethos as a researcher and writer. Take the extra time to learn about the stylistic conventions that apply to your rhetorical situation and to cite and document your sources in a professional way.

Discussion and Practice

1. Find at least one academic journal in your major or field of interest. Although this may seem overwhelming at first, be assured that every field, professional, and academic has at least one academic journal devoted to it. Once you have the journal, scan at least one of the articles and try to find the journal's website. Look at the submission requirements for the journal. What format and citation style does the journal call for? If you have difficulty, you can look for options like "Submission Guidelines" or "Information for Authors/Researchers."
2. Compare the citation guidelines and formatting conventions from your selected journal with those of other journals your classmates found. What similarities and differences did you find? Why?

Why is documenting your sources important?

Simply put, documenting your sources helps readers distinguish between borrowed material and your own ideas or original research. In educational settings, instructors often emphasize citation as a way to avoid plagiarism, but clearly identifying source material is an important part of establishing your ethos in all research situations. Documentation provides a way for your audience to see exactly where your information is coming from. Consider looking at the magazine rack at a local supermarket and seeing the headline on *World News Weekly*, "Space Aliens Infiltrate College." If this headline were on the cover of *Time* magazine, you would immediately pick up the issue to read the article, but instead, you know that *World News Weekly* is not a reputable source. In academic and business writing, an even more skeptical level of scrutiny exists. For an article to be published in an academic journal, it not only has to be credible, but the research also has to be peer-reviewed or vouched for and approved by several other scholars in the field. (For more information on the criteria for finding credible academic and non-academic sources, refer to Chapter 3.) If you are making an argument, it is vital that your academic audience of researchers knows where your sources have come from so they can evaluate how reputable your information is.

The need to cite sources is pretty obvious, but why you have to follow a particular citation style may be less clear to you. The answer is consistency. Whether you are writing for a publication or writing for your professor in a course, consistency in how you document your sources makes it easier for your readers to find relevant information from those sources. As you begin a research project, always consult with your professors, business, or publication to find out how they want you to cite your sources. You may have come across some sources online that provide documentation information and say, "if citing this article, use this format." In most cases, this format is only consistent with that publication and not with what you are writing or researching, so don't rely on their example. Instead, copy all available information about the source and construct a citation in the appropriate style for your project.

Why do you have to record all of the information on a source when you document it?

Full citations give your audience clues about how reputable every source is and allow your readers to find your sources if they want to read more. In the first case, a reputable source has certain markers that let your audience know it is more credible than other sources. For example, academic journals are published by volume and issue number and they often have "journal" in the title—this provides the audience with information that this source was vetted or published only after careful analysis. Furthermore, the rest of the information provides context for the article—for example, an article on heart disease from the 1955 is less relevant than one published in 2010.

In the second case, it's more a matter of providing your audience with convenient details so that they may more easily find a book, article, or website you used. Some books, especially historical or classic texts, may go through many editions or printings, which may have different supplemental materials, translations, and page numbers. Finding an article in the age of the Internet is often easier than in previous generations. However, researchers and scholars may publish similar results in multiple articles through different journals, university websites, and their own blogs. Being able to see exactly where the information came from can help your audience quickly find that same source.

Why can't you just use an online tool to document sources for you?

Bedford Bibliographer, BibMe, RefWorks, or other online tools can provide you with a valuable way to keep track of research and can even produce a rough draft of a works cited or references page. However, such tools will often add extra information, leave out information, or occasionally make a mistake. You should always double check and edit a final copy of a documentation page and not rely on a tool entirely. Tools also can't understand your audience—at times you may have to write for an audience that uses style variations that can't be programmed into a computer. And finally, most scholars and professionals who become familiar with a particular style can create citations faster on their own than using the tool. It's fine to use these computer tools, but you should also develop a clear understanding of what the tool is producing in order to get the most out of it and to be able to check for mistakes that the tool may make. This same advice goes for grammar and spell checkers. Spell checkers will not catch homonym mistakes, for instance. Grammar is often contextual, so some mistakes that the computer marks could be grammatically correct for writing within your specific context.

Discussion and Practice

1. Research if your college library or writing center supports a particular citation management tool (e.g. RefWorks, BibMe, etc.). If your school does not have a campus-wide tool, go to the Wikipedia page on Reference Management Software. Working with a peer, evaluate the effectiveness of one tool in managing sources and citing those sources. For example, find some sources using Google Scholar, the

Internet, or any books you have with you, and enter those sources into this research tool. What are the advantages and disadvantages of the tool?

What are the parts of a citation?

Although the order and small details of a citation will differ whether you are writing in psychology, business, or English, every documentation style calls for the same basic information. Because APA style and MLA style are the most common documentation formats for college writing assignments, we will focus on these two styles for the rest of this chapter. Figures 7.1 and 7.2 are sample entries, one in APA style and the other in MLA style, with a description of what each part means and why it is important. Most scholars do not memorize every instance of every citation type, but in fact, know the general order and important details for major citations. For anything they are unsure of, they will look it up in the appropriate publication manual. Generally speaking, here is the formula for APA and MLA style.

APA style Citations

For each citation, include:

1. Name of the author—last name, first initial. EXAMPLE: English, F.
2. Year in parentheses; if a month is listed, it should follow the year after a comma EXAMPLE: (2009, August).
3. [if an article title] title of the article, only the first word, first word after any punctuation, and proper nouns are capitalized. EXAMPLE: Discounting future green: Money versus the environment.
4. Book or journal title, italicized.
    a. If a journal title, all major words are capitalized. EXAMPLE: *Journal of Experimental Psychology: General.*
    b. If a book title, only the first word, first word after any punctuation, and proper nouns are capitalized. EXAMPLE: *Students writing in the university: Cultural and epistemological issues.*
5. Volume number, italicized, followed by issue number in parentheses, not italicized. Do NOT write volume, vol, v, or issue before these numbers. EXAMPLE: *138*(3)
6. [if an article] The range of pages an article appears on.
    a. If from a book, precede the number range with pp. and put it in parentheses. EXAMPLE: (pp. 17-37).
    b. If from a journal, just write the page range. EXAMPLE: 329-340.
7. [if a book] City where the publisher is located followed by a colon, then the name of the publisher, written out completely. EXAMPLE: Amsterdam: John Benjamins.
8. [if online database]
    a. If the article has a Digital Object Identifier (doi) finish the citation with "doi:" followed by the doi number. EXAMPLE: doi: 10.1037/a0016433.
    b. If the article doesn't have a doi, finish the citation with "Retrieved from [database name]."

9. [if online website] Finish the citation with "Retrieved from [URL]." The URL or Uniform Resource Locator is the web address including the prefix (e.g. http, ftp, https).

Anatomy of an APA style citation

Article from an academic journal, retrieved from an Internet database.

① Who wrote the article is always first because it shows who is responsible for the study, research or article. You should be skeptical of a source that doesn't list who wrote an article. In APA, only the author's first name initials are used.

When the study was conducted provides important context. The date is placed second because newer studies are preferred over older studies in the sciences.

②

③ The article title, especially in the sciences, is often more descriptive than creative, although this example is both. In APA, do not put quotes around a title, and only the first word, the first word after any punctuation, and proper nouns should be capitalized.

```
Weber, E. U., & Hardisty, D. J. (2009, August). Discounting
future green: Money versus the environment. Journal of
Experimental Psychology: General, 138(3), 329-340.
doi:10.1037/a0016433.
```

④ The journal where your source came from lets your reader know something about how reputable the source is. Just like a magazine such as *Time* or *Newsweek* has articles contained within them, academic research journals also have articles contained inside them. It is italicized. Large sources that contain smaller sources are italicized in APA.

⑤ The first number is the volume number and the second number in parentheses is the issue number. Volume numbers provide context in that a volume represents usually how many years the journal has been published (sometimes journals publish two volumes a year). In this example, we can see that the *Journal of Experimental Psychology* has been around for some time, which provides creditability. The issue number lets the reader know which of that year's issue the article is from. Some journals are published monthly, whereas others are published only a few times a year.

⑥ This is the range of pages that the article was printed on. The article begins on page 329 and ends on page 340. It is preferable to use page numbers for citations and quotes when available.

⑦ Most academic research journals are available online through large, subscription databases. These articles all have a Digital Object Identifier (doi) number. These numbers will always stay the same even if an article is on multiple databases and found in multiple places on the Internet. You can also use http://dx.doi.org to find an article linked to a doi. Some numbers are very long and complicated, so copy and paste the doi from the database or original source whenever possible.

You will note that the citation is indented only on the second and subsequent lines. This is called a hanging indent, and it is a text design feature that allows a reader to easily scan the sources by author names. You can format your sources this way by selecting them, then going to the paragraph formatting menu of your word processor and applying special/hanging indent.
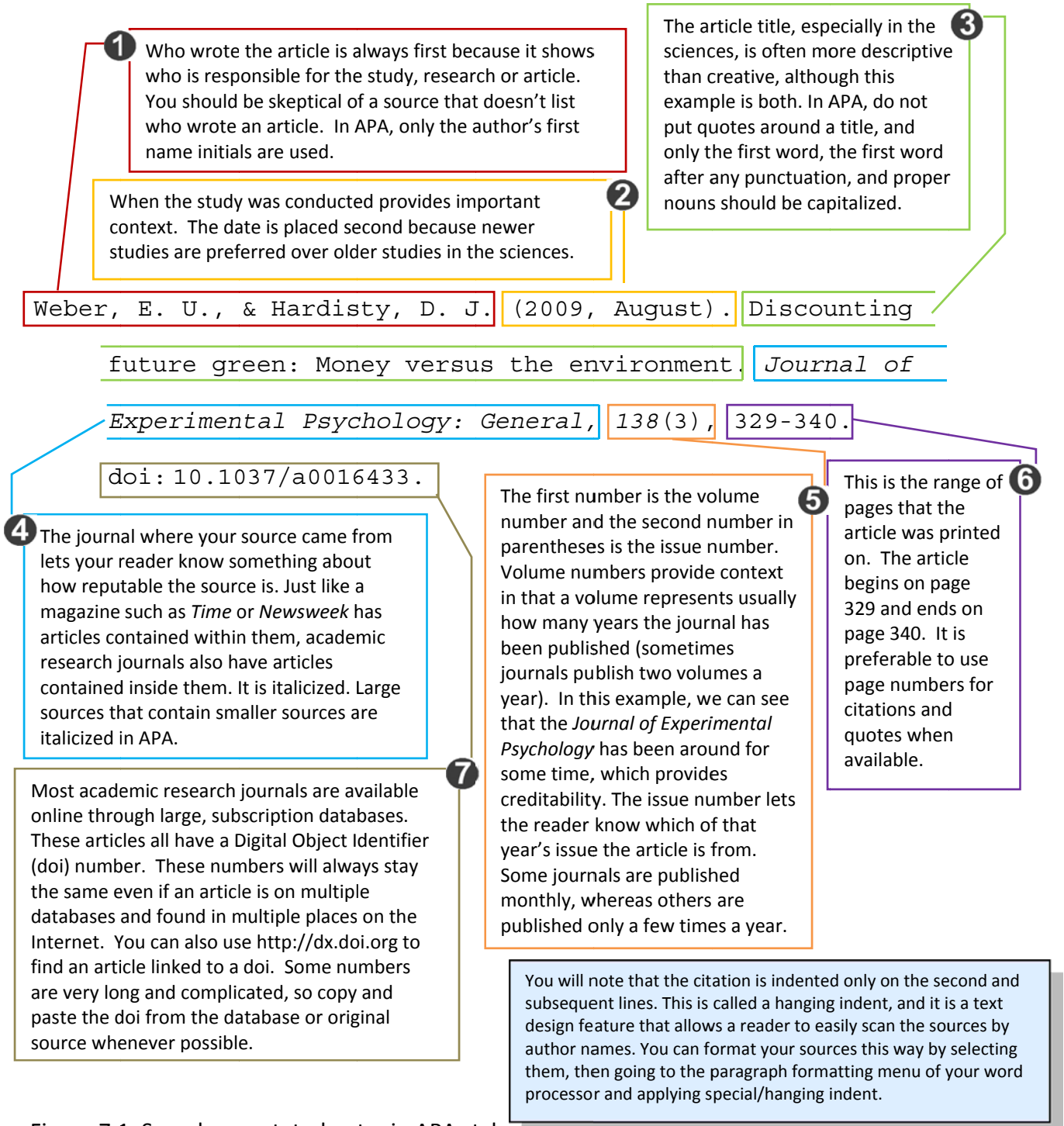
Figure 7.1. Sample annotated entry in APA style

MLA style Citations

Each entry should include:

1. Name of the author—last name, first name. EXAMPLE: English, Fiona.
2. [if an article or webpage title] title of the article in quotation marks; each major word should be capitalized. EXAMPLE: "Discounting Future Green: Money Versus the Environment."
3. Book, journal, or website title, italicized; each major word should be capitalized. EXAMPLE: *Journal of Experimental Psychology: General.*
   a. [If a book] is a second or subsequent edition, include the edition number and the abbreviation ed. after the title. EXAMPLE: 3rd ed.,
4. Write vol. followed by the volume number and a comma. Then write no. followed by the issue number. EXAMPLE: vol. 138, no. 3
   a. If a journal, follow the volume and issue with a comma and the year. EXAMPLE: vol. 138, no. 3, 2009
5. [if a book] include the name of the publisher; leave out words like Publisher, Company, Inc., unless it is a university publisher, then abbreviate university as U, and publisher/press as P . EXAMPLE: John Benjamins; Harvard UP
6. [if a book] Year. EXAMPLE: 1999.
7. [if online] The database or location you got the source from; this should be italicized. EXAMPLE: *Google Book Search.*

Anatomy of an MLA Citation
Article from an edited anthology or edited book found online

❶ Who wrote the article is always first because it shows who is responsible for the study, research, or article. You should be skeptical of a source that doesn't list who wrote an article. In the humanities, the author is highly valued because authors have different perspectives that may shape their interpretation of texts. So list the author's entire first name. If there is more than one author, then each subsequent name is written first name first.

❷ The article title can be descriptive of what it is about. In this example, you can see that this is both a study of what students write about but also a framework for analyzing work in the future. Article titles consisting of two parts, both a title and a subtitle, often are split between a creative title and a more descriptive title. Unlike in APA, each of the major words of a title should be capitalized, and the title should be in quotation marks.

English, Fiona. "What do Students Really Say in Their Essays?

Towards a Descriptive Framework for Analyzing Student

Writing." *Students Writing in the University: Cultural and*

Epistemological Issues, Edited by Carys Jones, Joan Turner,

and Brian V. Street. John Benjamins, 1999, pp.17-37.

❹ Anthologies and collections are edited, and those are the names that are usually listed on the front of the book. In MLA, you begin by using "Edited by" followed by each editor, listed first name first. Edited collections provide more credibility for a work appearing in the text since they have selected and/or reviewed the work to be included.

❸ Where your source came from lets your reader know something about how reputable the source is. The source here is a container for the article. Just like a magazine such as *Time* or *Newsweek* has articles contained inside it with their own titles, an edited collection or anthology contains individually authored works inside it. Just like APA, this title is italicized. Unlike APA, every major word should be capitalized.

❻ The pages the work appears on are included. You use pp. when it is a range of pages, as in this example. If it is a single page, then use a single p. If a work appears on non-consecutive pages, such as in a print newspaper or magazine, then you would write + after the first page (e.g., 17+). If using a PDF file online, you should cite the pages that are printed on the pages of the PDF file—do not use the PDF page number that appears at the top of the PDF Reader.

❺

For books, the publisher is important for credibility. Unknown publishers might not review works as critically as more established publishers. Also, publishers like Random House or Harper Collins tend to publish popular works and university presses like MIT or Oxford publish more academic works. In MLA, words like Publisher or Company are dropped from this section, and only the formal name is used. Because MLA style is preferred in the humanities where the date of publication is not as important, the date, while important for context, is listed at the end.

Figure 7.2. Sample annotated entry in MLA style

How do you cite the most common sources in APA and MLA format?

As you may have noticed, the information important is fairly consistent across documentation styles. Author names and where those authors appear are vital to the credibility of that source. Punctuation and abbreviations do differ between the styles. What follows are quick overviews of both APA and MLA style that include the general format for citing the most common types of sources.

APA
References
Print-based sources

MEDIA	AUTHOR	YEAR	ARTICLE	SOURCE
Book	Last name, First initial.	(year)		*Book*. City: Publisher.
Article in an edited collection	Last name, First initial.	(year)	Title.	In First initial Last name (Ed.), *Book* (pp. #). City: Publisher.
Academic Journal	Last name, First initial.	(year)	Title.	*Journal volume*(issue), page #
Newspaper or Magazine	Last name, First initial.	(year, date)	Title.	*Newspaper*, pp #.
Music CD	Last name, First initial.	(year)	Song.	*Album*. [media]. City: Publisher.
DVD	Last name, First initial (producer) & Last name, First initial (director).	(year)		*Movie*. original year. [Media]. City: Publisher.
Image	Last name, First initial.	(year)	*Title.*	*Source.* [media], page #.

Online sources

MEDIA	AUTHOR/ARTIST	YEAR	ARTICLE	SOURCE
Book	Last name, First initial.	(year)		*Book*. Retrieved from URL.
Edited collection	Last name, First initial.	(year)	Title.	In First initial, Last name (Ed.), *Book* (pp. #). City: Publisher. Retrieved from URL.
Article with doi or from a Database	Last name, First initial.	(year)	Title.	*Journal volume*(issue), page #. doi: doi #.
Online journal	Last name, First initial.	(year)	Title.	*Journal volume*(issue). Retrieved from URL.
Newspaper	Last name, First initial.	(year, date)	Title.	*Newspaper*. Retrieved from URL.
Magazine	Last name, First initial.	(year, date)	Title.	*Magazine*. Retrieved from URL.
Sound/Movie/image	Last name, First initial.	(year)	Title.	Retrieved from URL.
Website/blog	Last name, First initial.	(year, date)	Page.	Retrieved from URL.

- Where it says page #, just write the number.
- APA only capitalizes the first letter of the title and first letter after punctuation, except for journal titles, in which all initial letters are capitalized.
- For websites or web pages that do NOT have a date of publication, use the abbreviation (n.d) after the author
- For websites with complex URLs (over two lines) or dynamic URLs, only list the base URL
- If the page or article is not signed (i.e. there is no author listed), then start and sort by page title:
  ```
  Dogs' intelligence on par with two-year-old human, canine researcher says
      (2009, August 10). Retrieved from
      http://www.sciencedaily.com/releases/2009/08/
      090810025241.htm
  ```
- If a government, corporate or nonprofit website, list as author:
  ```
  Coca-Cola. (2008). Fourth quarter and full year 2007 results.
  ```

MLA
Works Cited

Print-based sources

MEDIA	AUTHOR	ARTICLE	SOURCE
Book	Last name, First name.		*Book*. Publisher, year.
Article in edited collection	Last name, First name.	"Title."	*Book*. Edited by. Publisher, year.
Academic Journal	Last name, First name.	"Title."	*Journal* vol. #, no. #, year, pp. #.
Newspaper	Last name, First name.	"Title."	*Newspaper* date: page #.
Magazine	Last name, First name.	"Title."	*Magazine* date: page #.
Music CD	Artist	"Song."	*Album*. Publisher, year.
DVD			*Movie*. Directed by, performances by . Publisher, year.
Image	Artist	"Title."	Medium, name of museum or archive, city.

Online sources

MEDIA	AUTHOR/ARTIST	ARTICLE	SOURCE
Book	Last name, First name.		*Book*. year. URL.
Edited collection	Last name, First name.	"Title."	*Book*. Edited by, Year, URL. Accessed day month year.
Online Journal	Last name, First name.	"Title."	*Journal* vol. #, no. #, year, URL. Accessed day month year.
Article from a Database	Last name, First name.	"Title."	*Journal* vol. #, no. #, year, pp. Database name. doi #. Accessed day month year.
Newspaper or Magazine	Last name, First name.	"Title."	*Newspaper*. Publisher, date, URL. Accessed day month year.
Sound/Movie/Image	Artist.	"Title."	*Website*. Publisher, date, URL. Accessed day month year.
Website/blog	Last name, first name.	"Page."	*Website*. Publisher, date, URL. Accessed day month year.

- URLs do NOT include http:// https:// or other protocol prefaces.
- *Website* refers to the website's formal name (*Amazon*, *Wikipedia*) and NOT to the URL.
- Publisher refers to the website's sponsor or owner if different than the website title.
- If the page/article is not signed (i.e. there is no author listed), then start and sort by page title:

        "Dogs' Intelligence on Par with Two-year-old Human, Canine
            Researcher Says." *Science Daily*. 10 Aug. 2009.
            www.sciencedaily.com/releases/2009/08/090810025241.htm.
            Accessed 7 Oct. 2016.

- If a corporate, nonprofit, or government website, list as author:

        Coca-Cola. "Fourth Quarter And Full Year 2007 Results." Coca-
            Cola Company, 13 Feb., 2008.
            www.businesswire.com/news/home/20080213005613/en/Coca-Cola-
            Company-Reports-Fourth-Quarter-Full-Year. Accessed 7 Oct.
            2016.

How do you document sources within an essay, article, or report?

Citing within the text is important for pointing your reader to where a claim or piece of evidence comes from. Since it would be really annoying to write out the whole citation in the middle of your project, an in-text link is used in all documentation styles. This link can be a number, as in CMS or CSE style, or it can be the author's last name, as in APA or MLA style. These in-text links allow the reader to quickly find the full citation on the references or works cited page. They are usually called in-text parenthetical citations because, as the name plainly states, they appear inside your text and in between parentheses.

How do you cite in-text in APA?

APA in-text citations use the author's last name and the year the study was written. These two important elements provide, first, a link to the Reference page, but also immediate context since the year is important in science-based writing. Besides a parenthetical citation, you can also integrate the year and author into the text. When using a parenthetical citation, always place any punctuation *after* the citation.

Parenthetical citation:
> Compared to high school students in the 1970s, students today have higher self-esteem (Twenge & Campbell, 2008).

Integrated into the text:
> Twenge & Campbell (2008) found that students have higher self-esteem today than did students in the 1970s.

> A 2008 study by Twenge & Campbell confirmed that students in 2006 had higher self-esteem than did 1970's students.

If you are quoting from an article and using something word-for-word, you also have to include the page number and the p. abbreviation:

> Twenge & Campbell (2008) found, "recent high school students are more satisfied with themselves and score slightly higher on self-liking than did students in the 1970s" (p. 1084).

> One study showed that "recent high school students are more satisfied with themselves and score slightly higher on self-liking than did students in the 1970s" (Twenge & Campbell, 2008, p. 1084).

If you refer to the citation more than once, you only need to list the year once unless it would create confusion with another source. In all of these cases, the in-text citation will lead the reader to the References page entry at the end of your paper:

Twenge, J. M. & Campbell, W. K. (2008). Increases in positive self-views among high

school students: Birth-cohort changes in anticipated performance, self-

satisfaction, self-liking, and self-competence. *Psychological Science, 19*(11),

1082-1086. doi: 10.1111/j.1467-9280.2008.02204.x

For some sources, you might not have author information—for example, corporate or non-profit documents that do not list an author, or press releases that don't list an author. In those instances, use enough of the article or book title to allow the reader to find the source on your References page. For other sources, especially those on the web, the publication date might not be provided. If the reference has no date, then write n.d. where the date would normally be provided.

> A previous study has shown that good grades led to higher self-esteem, but students with less than average grades had the same self-esteem as those with average grades ("School Performance," 2009).

Once again, your reader will be able to find the References page entry:

School performance and body weight affects kids' self-esteem, study shows. (2009,

January). Retrieved from http://www.sciencedaily.com/releases/2009/

01/090121123045.htm.

How do you cite in-text in MLA?

MLA in-text citations use the author's last name and the page number in a parenthetical citation. The name provides a link to the Works Cited page, and the page number provides the exact location of the information. Because MLA is used in the humanities and when dealing with text-based research often, it is important for the reader to be given where a passage or idea came from within a text. This means whether you are quoting, paraphrasing, or merely referring to an idea from a source, you have to use a page number.

When referring to an entire study, refer to the page number(s) that best represents the general findings, which can usually be found in the results or discussion section. In MLA parenthetical citations, you do not use any punctuation or abbreviations between the author name and the page number.

Parenthetical Citation:

A study published in the journal *Psychological Science* revealed that compared to high school students in the 1970s, students today have higher self-esteem (Twenge and Campbell 1084).

Integrated into the text:

Twenge and Campbell in a study published in *Psychological Science* report that students have higher self-esteem today than did students in the 1970s (1084).

Similar to APA, in MLA, anything word-for-word from an article should be placed in quotes:

A study from the journal *Psychological Science* reveals that teenagers have higher self esteem than in years past. Twenge and Campbell write, "recent high school students are more satisfied with themselves and score slightly higher on self-liking than did students in the 1970s" (1084).

One study from *Psychological Science* reports, "recent high school students are more satisfied with themselves and score slightly higher on self-liking than did students in the 1970s" (Twenge and Campbell 1084).

In all of these cases, the in-text citation points to the Works Cited page entry:

Twenge, Jean M. and W. Keith Campbell. "Increases in Positive Self-Views Among High

School Students: Birth-Cohort Changes in Anticipated Performance, Self-

Satisfaction, Self-Liking, and Self-Competence." *Psychological Science,* vol. 19,

no. 11, 2008, pp. 1082-1086. wkeithcampbell.com/wp-

content/uploads/2013/08/Twenge-Campbell-2008-PSPB.pdf. Accessed 6 Oct.

2016.

In some instances, the author's name is not provided, such as corporate or non-profit documents or press releases that do not list an author. For those instances, use the title of the article or book that will allow the reader to find the source on your References page. If an article title is long, shorten it enough so that the reader can still find it on your Works Cited page. If there is no page listed or if it is from a webpage, then you do not have to write a number. However, adding more context is always welcome:

A study from the University of Alberta reported in *ScienceDaily* found that good grades led to higher self-esteem, but students with less than average grades had the same self-esteem as those with average grades ("School Performance").

Your reader will be able to find the Works Cited entry:

"School Performance and Body Weight Affects Kids' Self-esteem, Study Shows." *Science*

Daily, January, 2009,

www.sciencedaily.com/releases/2009/01/090121123045.htm. Accessed 6 Oct.

2016.

What's the difference between a Works Cited, References, Bibliography, and Annotated Bibliography?

Titling the page that has your sources listed might seem confusing since many names are used to describe the page. Officially speaking, Works Cited is only used in MLA, References is used in CSE and APA and their variations, and Bibliography is used in CMS and Turabian. However, you might also see Bibliography used in any of those styles when a list of works related to but not necessarily consulted or cited comes after an article. It's a way for the author to provide the reader with additional sources or places to go for information. For example, a well-known way to begin a major research project is to assemble an Annotated Bibliography, which is a list of works related to a topic or issue after which the researcher writes a brief summary and connection to the source. For example, here's what an annotated bibliography entry for the Twenge and Campbell article might look like:

Twenge, J. M. & Campbell, W. K. (2008). Increases in positive self-views among high school

students: Birth-cohort changes in anticipated performance, self-satisfaction, self-liking,

and self-competence. *Psychological Science, 19*(11), 1082-1086. doi: 10.1111/j.1467-

9280.2008.02204.x

Twenge and Campbell looked at data from the Monitoring the Future study, a study of high school seniors that has been continuously going on since 1975. They compared self-reported self-esteem of high-school students in different domains. They found that, compared to students in the 1970s, specifically, 1975, 1976, and 1977, students in 2006 rated themselves higher in areas of prediction of future self success, satisfaction of self, and grades and intelligence. However, they rated themselves as lower in the area of competence. In other words, students today feel better about themselves, but they are less confident about their abilities than their 1970s counterparts. This article is related to my project on grade inflation because it shows how students consider themselves smarter than before but are less confident because they believe they haven't had to work that hard for the grades they receive.

Figure 7.3. Annotated bibliography entry for an APA citation.

How is an APA References page formatted?

Set your word processor to 1-inch margins on the top, bottom and sides. At the top of the page, References should be centered; do not use bold or underline. Each entry should be alphabetized and formatted with a hanging indent. Do not put extra spaces between each entry. Figure 7.5 is an APA page formatted correctly. We have indicated what each entry is on the left hand side. You should be able to find an example entry for the most popular sources on this figure.

How is an MLA Works Cited page formatted ?

As with the rest of MLA style, you should set your word processor to 1-inch margins on the top, bottom and sides. At the top of the page, Works Cited should be centered; do not use bold or underline. Each entry should be alphabetized, and should be formatted with a hanging indent. Do not put extra spaces between each entry. Figure 7.4 is an MLA page formatted correctly. We have indicated what each entry is on the left hand side. You should be able to find an example entry for the most popular sources on this figure.

There are usually special considerations to keep in mind when citing sources, so what follows are some added formatting concerns and notes for each of the entries. The first page (Figure 1) is a sample APA References page. The second (Figure 2) is a sample MLA Works Cited page. They are followed by a list with corresponding numbers that describe more details about each citation.

References

① Book available online from an organization, corporation, or university.

Bachman, J. G., Johnston, L. D., & O'Malley, P. M. (2014). *Monitoring the future: Questionnaire responses from the nation's high school seniors, 2012*. Ann Arbor, MI: Institute for Social Research at The University of Michigan. Retrieved from http://www.monitoringthefuture.org/datavolumes/2012/2012dv.pdf.

② Newspaper article, print.

Carey, B. Task to aid self-esteem lifts grades for some. (2009, 17 April). *New York Times*: A16.

③ Article from an edited collection, print.

Covington, M. V. (1989). Self-esteem and failure in school: Analysis and policy implications. In A. M. Mecca, N. J. Smelser, & J. Vasconcellos (Ed.), *The social importance of self-esteem* (pp. 72-14). Berkeley: University of California Press.

④ Article from a magazine available online.

Kelley, Raina. (2009, April 18). Generation me. *Newsweek*. Retrieved from http://www.newsweek.com/id/194640.

⑤ Song from an album

twenty one pilots. (2016). Heathens. *Suicide Squad: The Album*. [CD]. Hollywood: Atlantic Records.

⑥ Letter to the editor, available online.

Of money and self-esteem. (2008, December 23). [Letter to the editor]. *New York Times*. Retrieved from http://www.nytimes.com/

⑦ Article from an academic journal available from an online database.

Reynolds, J., et al. (2006). Have adolescents become too ambitious? High school seniors' educational and occupational plans, 1976 to 2000. *Social Problems, 53*(2), 186-207. doi:10.1525/sp.2006.53.2.186

⑧ Website

Rojstaczer, S. (2009). *GradeInflation.com: Grade inflation at American colleges and universities*. Retrieved from http://www.GradeInflation.com/

⑨ Movie, purchased from iTunes

Davis, A., et al. (producer) & Wain, D. (director). (2008). *Role Models*. [Motion Picture]. United States: Universal Pictures. Retrieved from iTunes.

⑩ Webpage that is part of a website

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⑪ Article without an author, available online at a website.

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Twenge, J. M. & Campbell, W.K. (2001). Age and birth cohort differences in self-esteem: A cross-temporal meta-analysis. *Personality and Social Psychology Review, 5*(4): 321–344.

Figure 1. APA References page sample

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① Book available online from an organization, corporation, or university.

Bachman, Jerald G., Lloyd D. Johnston, and Patrick M. O'Malley. *Monitoring the Future: Questionnaire Responses from the Nation's High School Seniors.* Institute for Social Research at The University of Michigan. 2012, www.monitoringthefuture.org/datavolumes/2012/2012dv.pdf. Accessed 6 Oct. 2016.

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③ Article from an edited collection, print.

Covington, Martin V. "Self-esteem and Failure in School: Analysis and Policy Implications" *The Social Importance of Self-Esteem* Edited by Andrew M. Mecca, Neil J. Smelser, and John Vasconcellos., U of California P, 1989, pp. 72-124.

④ Article from a magazine available online.

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⑧ Website

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⑩ Webpage that is part of a website.

Scheff, Thomas J. and David Fearon, Jr. "Cognition and Emotion? The Dead End in Self-Esteem Research." Thomas Scheff Website. 3 Apr. 2003, www.soc.ucsb.edu/faculty/scheff/27.html. Accessed 6 Oct. 2016.

⑪ Article without an author, available online at a website.

"School Performance and Body Weight Affects Kids' Self-esteem, Study Shows." *ScienceDaily,* 2 Jan. 2009, www.sciencedaily.com/releases/2009/01/090121123045.htm. Accessed 6 Oct. 2016.

⑫ Article from an academic journal available from an online database.

Twenge, Jean M. and W. Keith Campbell. "Increases in Positive Self-Views Among High School Students: Birth-Cohort Changes in Anticipated Performance, Self-Satisfaction, Self-Liking, and Self-Competence." *Psychological Science*, vol. 19, no. 11 , 2008, pp. 1082-1086. doi: 10.1111/j.1467-9280.2008.02204.x.

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Figure 2. MLA Works Cited page sample

Reference and Works Cited notes

As we have indicated, the information included in APA and MLA citations is quite similar, even if the order and small details are different. These notes refer to the citation examples above and contain further clarification about the citations, followed by notable differences and considerations for each citation.

1. Many books and studies are available online. In this case, the Institute of Social Research at The University of Michigan has published study data in Adobe Portable Document Format or PDF. Even though it is in PDF, because you access it from the web, you would list it as such, making sure to include the URL in both APA and MLA styles.
   a. APA: You need to include the "http://" in APA URLs.
   b. MLA: Do not include http:// or https:// or any other protocol preface.
2. Traditional newspapers have sections and page numbers, so any time you cite a print-based newspaper, you have to include that information. In this case, it is from section A, page 16, or A16.
   a. APA: If you accessed this article online, you would leave off the page number and add the sentence, "Retrieved from http://www.nytimes.com/".
   b. MLA: If you accessed this newspaper online, you would leave off the page number and add the URL (without the http://) and the date you accessed the article (e.g., Accessed 9 Aug. 2009).
3. An edited collection or anthology is a book that is made up of separate articles written by individual authors. For example, if you were to cite one of the readings such as Barbara Enhrenreich's "Serving in Florida" from our textbook, you would cite it as an edited collection.
   a. APA: In the sample citation, the editors of the book come after the article title but before the book title with the abbreviation (Ed.) for edited by.
   b. MLA: Also note that when you are citing a university publisher, you would abbreviate University with a U and Press/Publisher with a P. If this were a non-university publisher, then you would not put the P in there, and would in fact leave out instances of Publisher or Press in the title.
4. Citing a magazine is almost identical to citing a newspaper.
   a. APA: Most website entries in APA require the URL. Sometimes formatting a URL is tricky. On a References page, you should only break the URL at a slash (/), and only if is not the last part of the entry. In this sample, we decided not break the URL, even though there is a large enough space after the magazine title.
   b. MLA: You also need to include the URL. If you were to type in the article title, "Generation Me" and the author Raina Kelley into a search engine, and you will find the article on seven or more separate websites that are not Newsweek. Ideally, when doing research, you should find the original source of the article, but sometimes it can be difficult.
5. Think of a music album, whether it is a CD or purchased from an online service, like an edited collection or anthology. It has songs, smaller works, contained in a larger work.

In this case, the artist is the author, the song is the article, and the album title is the book. Note that the group, twenty one pilots, is not capitalized. Sometimes, musical groups, authors (e.g., bell hooks, danah boyd), and computer programs (e.g., iTunes) have stylized names that don't follow typical capitalization patterns. You should follow that pattern when citing them.

   a. APA: Medium goes before the publisher, and is always surrounded by brackets [ ]. If you were using a version of the song downloaded from iTunes or Amazon, you would replace the media (e.g. CD) with the file format you used, MP3 file or AAC file.
   b. MLA: Just include the publisher and the date.

6. Many letters to the editor are, in fact, signed, which means you would list the author name first. In the citation included above, there was no author name given, so you would sort this by the title instead. When it comes to letters to the editor, it is important to list this as a letter because it lets your audience know that this wasn't an article, carefully researched and edited, but was a letter to the paper or journal voicing a concern or agreement.

7. Many books and articles have more than one author. If there are only two or three, you must always list each name. However, if you have more than three, you can use the abbreviation et al. which is a Latin expression that literally means, "and others." In this entry, the article was written by John Reynolds, Michael Stewart, Ryan MacDonald and Lacey Sischo, but only the first author listed, here John Reynolds, is listed followed by et al. When you refer to multiple authors when citing in your text, you should refer to them in the plural. In other words, you should write, "Reynolds et al. argue that students today are too ambitious." Notice that it is argue, plural, and not argues, singular. When you are writing et al. just think to yourself "and others" and you should be fine.

   a. APA: This article has a digital object identifier (doi), so we use that number instead of listing any database.
   b. MLA: In this entry, notice that it comes from an online database (e.g., JSTOR), so that is listed in addition to the doi.

8. Websites and web pages can be confusing sometimes. A website is the larger entity, and a web page is a single page on that larger site. For example, your college's website has many web pages. *The New York Times* website has many articles that are on their own web page. In this entry, the website is being referenced here since there is no other article or web page on this website. Only italicize website titles and not web page titles.

   a. APA: Like article titles in APA, web page titles are not in quotes.
   b. MLA: Like article titles in MLA, web page titles should be in quotes.

9. Movies titles are italicized. Listing performers and directors is based on what you are referring to in your research. Because movies have similar titles, the director is often different, and distinguishes one version from the next.

   a. APA: The producer name comes first followed by the director, then the movie title. Like the music example in #5, the medium should be listed, whether DVD,

film, or a file format that you downloaded. In this case, the format is the Apple M4V file format from iTunes.

    b. MLA: The movie title comes first followed by the director and performers

10. This particular article was included as part of a professor's website. The website was not italicized because this is not the title of the site but simply a description of the site. Many individuals might have blogs or personal websites that don't have official titles, so you would not italicize such website titles.

    a. APA: We included both the site title as a description and the URL for the source. Including both is useful when you are finding articles or research that exists on personal websites or blogs.

    b. MLA: Include the URL.

11. This entry is another instance of an article without an author. Remember, alphabetize such sources by the first word in the title on your Works Cited and refer in your text to the article title. The website *ScienceDaily* routinely publishes press releases from scholars and researchers, and these press releases often do not have an author. Ideally, you would seek the original or primary source of the research from the article and read that for your research, but sometimes this can be difficult.

12. Sometimes an article will appear in multiple databases. Always select the database that you accessed the article from and the doi number in MLA.

13. This print journal, although becoming less prevalent as these journals move online, is still an important entry to remember.

    a. APA: Always list the authors' names in APA, even if they are the same. If you have an article written in the same year by the same author, then follow the date with a lowercase letter, beginning with a: e.g. (2001a), (2001b).

    b. MLA: You will note that this entry begins with three hyphens, ---. This indicates that it is by the same authors as the previous entry. Thus, Twenge and Campbell wrote this article as well as the article cited in #12.

Discussion and Practice

1. Why is it important to cite your sources correctly?
2. Go to a reputable, popular news source such as *Time, CNN*, *Newsweek*, *New York Times*, or *FOX*. Scan some of their articles. How do they cite their sources? Why do you think they refer to sources the way they do?
3. Search for an item of interest at Wikipedia (http://www.wikipedia.org). Does this page cite its sources? What documentation style do you think it uses? Why does it use that style? As a larger project, read through some of the sources this Wikipedia entry uses—did the authors of the Wikipedia entry use the source or sources appropriately?
4. Although the information included for documenting sources in MLA or APA is similar, the format is different. What are some notable differences? Why do you think these differences exist? Consider carefully the types of disciplines that use the styles as you consider this question. How are these differences rhetorical for each discipline?

5. The following citations in Table 1 are incorrect, although all relevant information is there. In fact, in some cases, these citations were described by the source as the "proper" way to cite the source.
    a. Write an APA References page using at least five entries. Use today's date as the date you accessed the source where appropriate.
    b. Write an MLA Works Cited page using at least five entries. Use today's date as the date you accessed the source where appropriate.

Table 1. Incorrect Citations

1. Donald Murray's book, A Writer Teaches Writing published in 1985 as a second edition by Houghton Mifflin in Boston.

2. The Faked Apollo Landings website http://www.ufos-aliens.co.uk/cosmicapollo.html. Main article written by Dave Cosnette. Updated February 10th, 2009.

3. A Brief History Of America's Quirky Alcohol Laws by M. J. Stephey in Time magazine, Thursday, July 09, 2009.

4. Findarticles.com. TITLE: What college women want in a marriage partner. SOURCE: College Student Journal, June, 2009 AUTHOR: Sarah O'Reilly, David Knox, Marty Zusman.
http://findarticles.com/p/articles/mi_m0FCR/is_2_43/ai_n31977576/?tag=content;col1

5. Ibuprofen improves survival and neurologic outcome after resuscitation from cardiac arrest JOURNAL: Resuscitation, Volume 14, Issue 4, December 1986, Pages 199-212. ScienceDirect Database: doi:10.1016/0300-9572(86)90064-X by John E. Kuhn, Cynthia N. Steimle, Gerald B. Zelenock, Louis G. D'Alecy

6. Tuesday, April 28, 2009 "COLLEGE ENROLLMENT AND WORK ACTIVITY OF 2008 HIGH SCHOOL GRADUATES" from the Bureau of Labor Statistics http://www.bls.gov/news.release/hsgec.nr0.htm

7. Can massively multiplayer online gaming environments support team training? Performance Improvement Quarterly Volume 21, Issue 3, Date: 2008, Pages: 23-41 Debra L. O'Connor, Ellen S. Menaker Digital Object Identifier (doi) is 10.1002/piq.20029. Wiley InterScience database.

8. MOVIE: District 9, DIRECTOR: Neil Blomkamp, PRODUCER: Bill Block, PERFORMER: Sharlto Copley, YEAR: 2009, USA: Sony Pictures.

9. INSTRUCTIONALLY RELEVANT WRITING ASSESSMENT written by Stephen Isaacson in the Reading & Writing Quarterly, 10573569, Jan-Mar99, Vol. 15, Issue 1 from the database Academic Search Complete

10. Plato's The Republic, translated by Benjamin Jowett. 2007. Wilder Publications, LLC; Radford, Virgina. http://books.google.com/books?id=qW_iWuzIAOEC

11. Profile of a Citizen Army: Shiloh's Soldiers by Joseph Allan Frank in Armed Forces & Society, Vol. 18, No. 1, 97-110 (1991) doi: 10.1177/0095327X9101800105, DATABASE: Sage.

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Fearnside, P. M., Righi, C. A., de Alencastro Graça, P. M. L., Keizer, E. W., Cerri, C. C., Nogueira, E. M., & Barbosa, R. I. (2009). Biomass and greenhouse-gas emissions from land-use change in Brazil's Amazonian "arc of deforestation": The states of Mato Grosso and Rondônia. *Forest Ecology and Management, 258*(9), 1968-1978.