

CHAPTER TWO

The Research Process: Getting Started

Chapter Checklist

After reading this chapter, you should be able to:

1. Describe what a theory is and its role in communication research.
2. Explain why the research process starts with identifying a research problem.
3. Develop a preliminary question from a topic or issue.
4. Explain why a preliminary question is superior to a topic in conducting library research.
5. Evaluate preliminary questions for their completeness and clarity.
6. Conduct a search for print and online scholarly resources.
7. Glean the basic ideas from reading the abstract, literature review, and discussion sections of a research article.
8. Track a citation back to its original source.
9. Effectively summarize and report what you have found in the library.



CONSIDERING THEORY IN RESEARCH

Research revolves around theory. Thus, the journal articles and book chapters you find in the library use research as a basis for developing or challenging theory. *Theory* is a set of interrelated propositions that present a systematic view of phenomena. The purpose of those propositions is to describe, predict, or explain the phenomena. For communication research, theory creates propositions about symbols, messages, and meanings.

Research is necessary to validate theory. Generally, quantitative research starts with a theory. Then researchers conduct a research study to demonstrate if a theory holds true for a set of data. If it does not, the theory is altered or discarded. In this theory–research link, theory is the map by which the researchers conduct their studies. This type of research relies on *deductive* thinking or reasoning in that theory presumes what will result and the research verifies those claims. Theory directs the researcher in developing hypotheses and questions and in selecting the method for testing them. For an example, see Nah and Yamamoto’s (2019) quantitative study of citizen journalism.

Research is also necessary to develop theory. In this case, research is inductive. Researchers start with a research question and examine their collected data for both patterns and anomalies to first answer the question and then contribute to theory development. In this theory–research link, the theory, or map, is drawn from the patterns uncovered by the research. This type of research relies on *inductive* thinking or reasoning in that theory, or generalization, is derived from the cases explored. This is the basis of qualitative research. For an example, see the study by Johansson et al. (2019) that led to the creation of an organizational communication maturity index.

As you can see, research and theory are necessary complements to one another. Theorizing is important to research in two additional ways (Brooks, 1970). First, researchers cannot observe the entire universe. Rather, researchers must select a subset of phenomena to be observed. Theory directs researchers’ attention to particular communication patterns, functions, themes, processes, and so on. For example, it would be impossible for a communication researcher to study every aspect of how communication is used in political campaigns. Thus, theory helps us define and isolate a communication phenomenon for study. Second, theory

helps “integrate data which otherwise would remain mere collections of facts” (Brooks, 1970, p. 4). In a theory, research findings are integrated into a system of description, prediction, and perhaps explanation that help us answer questions of “What?” “Why?” “How?” and sometimes “What if?”.

Developing Theory

We engage in informal theorizing when we try to make sense of the past, operate effectively in the present, or anticipate events in the future (Lustig, 1986). Although theorizing is a common and fundamental human activity practiced every day, formal theorizing as a scientific process is quite different. Formal theory building (Lustig, 1986) involves six basic steps:

In step 1, the researcher describes an event or observation that needs understanding. The event must be observable, interesting, important, and remarkable to come to the attention of the researcher or someone else who desires an understanding of it. This first step begins to identify the “what.”

In step 2, the researcher creates an explanation for the event. Although anyone can create an explanation, it is the researcher’s job to formalize and test explanations. In this step the answer to “Why?” begins to be formulated.

In step 3, the researcher moves from the specific event or observation to a more generalized form. In other words, if the event of interest is family decision making around the dinner table, the researcher could move to the more generalized communication event of decision making or the more generalized communication event of family interaction. The researcher must decide which type of communication event is more interesting and intriguing to investigate. By moving to a more abstract level, the researcher can now look for similar events to see if the answer to “Why?” developed in step 2 is also suitable for explaining these other, different but similar events. Instead of focusing on one specific interaction event, the researcher must develop answers suitable for a class of similar events. This characteristic of theory moves it from an informal to a formal level. Although you are comfortable with the way informal theorizing describes and explains events that happen in your daily life, you would not be comfortable applying others’ informal theories to the events that you experience. Thus, the researcher’s job is to discover the commonalities among

TABLE 2.1 Theory Development—Steps 1 Through 4

	<i>Task</i>	<i>Example</i>
<i>Step 1</i>	Describe event or observation	Family members (2 adults, 2 children) eat dinner and discuss their daily activities. Father introduces family activity for weekend, which generates considerable discussion from children. Although the discussion initially has both positive and negative points introduced, eventually the children agree that they do not want to pursue the weekend activity suggested.
<i>Step 2</i>	Create explanation for event	Explanation 1: Children are likely to reject ideas presented by parents during dinnertime discussions. Explanation 2: Parents introduce ideas for family dinnertime discussion to obtain family members' preferences.
<i>Step 3</i>	Move from specific to more generalized form	General form 1: Children's rejection or acceptance of parental input. General form 2: Parents desire input from other family members.
<i>Step 4</i>	Derive predictions from explanations	Focus 1: Children are likely to reject ideas presented by parents. Focus 2: Parents will seek input about family matters from other family members.

to develop and test theories that describe and explain all events belonging to a class. Thus, a theory of decision making should apply to many people's experiences of decision making, not just one's own.

In step 4, the researcher begins to derive predictions from the explanation developed in step 3. To do this, the researcher asks, "What else would be true, or observable, if the explanation was correct?" Continuing with our family decision-making example, the researcher could make several propositions that are testable. Examine Table 2.1 to see the progression from step 1 to step 4.

Now, in step 5, the researcher must select a focus and test the proposed theory. Most communication observations are complex enough to support multiple attempts at theory building. The researcher must develop a plan for and collect data that can test the predictions or propositions.

Step 6 of the theory-building process uses the obtained data to confirm, revise, expand, generalize, or abandon the proposition tested (Lustig, 1986). Notice that collecting the data in step 5 is distinct from interpreting the data in step 6. If the results are consistent with the proposition, the theoretical framework is confirmed for the time being. If the results are not consistent with the proposition, the discrepancy must be explained

by critically examining the methodological process or by reworking the theoretical framework. If the theoretical framework is revised or if two alternative and competing explanations are present, the theory-building process starts again. If methodological problems are identified, the researcher repeats steps 5 and 6 using different and improved methodological procedures.

Even after these six steps, the theory-building process is not complete or final. Theory is developed over time, and this theory-building process is repeated many times as different scholars test theoretical propositions in their research. Both quantitative and qualitative research contribute to theory development.

Theories are developed and tested incrementally. After a basic theoretical notion is presented as a proposition in the scholarly literature, scholars develop studies to test the propositions. This is possible because the results of scholarly research are presented in a public forum. Theory is confirmed only after many studies, usually conducted by different scholars with different methodologies, achieve similar results. Even at that point, theories are still considered tentative. A theory that was at one time believed to be valid can be questioned in the future. For example, new technologies can create new opportunities and circumstances for communication. Thus, theories of how and why

TRY THIS!**Finding Theory in Journal Articles**

Find two or three communication journal articles for a communication problem that interests you. Carefully read the literature review of each article. Does the author identify by name the theory or theories that are providing the foundation for the research study? Does the author point to a description, cause, prediction, or explanation as the reason for conducting the research? If so, this is likely the theoretical basis of the study. Next, read the discussion and implication sections of the articles. In this part of the journal article, authors discuss the implications of the study as a challenge to the theory or as further development or expansion of the theory.

interpersonal relationships develop over time may need to be reexamined in light of the extent to which these technologies are used in developing relationships.

Utility of Theory—Research Link

To the extent that a community of scholars accepts research findings and can agree on the theoretical propositions, theory has been achieved. But all theory should be judged by some aspect of utility (Lustig, 1986). The knowledge gained from the process of theory-building should be used “to suggest new questions that are worth answering, develop more accurate theories about human communication, communicate more effectively, teach others to communicate more effectively, create better human relationships, and improve the cultures and the environments within which we all live” (Lustig, 1986, p. 457). When the utility criterion is added as a test of the theory-building process, you can see not only that the theory–research relationship is reciprocal, but also that it is grounded in the practical issues of human communication (Keyton et al., 2009).

In fact, theory is used in four ways in the research process (Hoover & Donovan, 1995). First, theory provides patterns for interpreting data. Without working from or toward theory, research could produce results without an organizing framework. Second, theory links one study to another, helping to provide a continual conversation about our understanding of communication phenomena. Third, theory provides a framework for understanding how concepts and issues are important or significant in our interactions. For example, theorizing about communication apprehension and then conducting studies to validate those

expectations helped researchers uncover the role apprehension plays in nearly every communication event in which we participate. Fourth, theory helps us interpret the larger meaning of research findings. For example, reading about how observers react to an apprehensive individual may cause you to monitor and manage your own apprehensiveness when speaking in public.

Scientific and systematic inquiry is a process of developing and testing theory. Direct relationships exist among questions asked, data observed, and theory development (Miller & Nicholson, 1976). Examine the deductive and inductive research models (see Figures 2.1 and 2.2). See how theory drives quantitative research? Alternatively, in qualitative methodology, observations tend to drive theory development. However, the selection of any particular quantitative or qualitative methodology does not guarantee that a study will result in theoretical development. Rather, a study must be designed to illuminate and examine underlying principles and propositions (Shapiro, 2002). Only then can its findings contribute to theoretical development.

Also recognize that the process of inquiry is not always linear. Nor can theory be developed or challenged in one study. Recall that science can be characterized by its replicable and self-correcting nature. Multiple studies are needed to replicate findings, just as multiple studies are needed to challenge and alter existing theory.

Theory, or less formalized versions of theory labeled as *models*, *frameworks*, or *taxonomies*, is the basis of the research process and the literature review you conduct before designing a study and collecting data. As you conduct your library search be aware that not all theories have the word *theory* in their title.

THE RESEARCH PROCESS MODEL

Doing research means joining the conversation. Whether you are conducting a literature review for a class assignment or developing a literature review to support a research project you design and conduct, you will need to know what exists in the research literature. Much of what you will find in the library will be related to the theories researchers use to describe, predict, and explain communication behavior and processes.

Researchers seek answers to questions. There are two possibilities regarding the information they need. First, an answer may already exist, but that information is not known to the researcher. In this case, library research usually provides the answer. Second, an answer is neither known nor available. In this case, the researcher must develop and conduct research to uncover an answer. In either case, finding an answer depends on the researcher's skills to search and track down information that fits his or her needs.

Working from what you already know and understand, your objective as a researcher is to find information that answers your question. Yet, obstacles and pitfalls along the way may keep you from accomplishing your goal. You must be vigilant and pay attention throughout because your ability to integrate new information that you find is really the key issue and determines whether you are successful in answering your question. To help you, the library search you do for your research study can be guided by two scholarly traditions. Each is described next.

Deductive Research Model

Take a look at the first research model, presented in Figure 2.1, to see how the deductive research process is structured. Notice how the model is circular and cyclical. Each of the steps must occur for the research process to be complete. In this case, after identifying the research problem, the researcher begins with a theory and then gathers evidence, or data, to assess whether the theory is

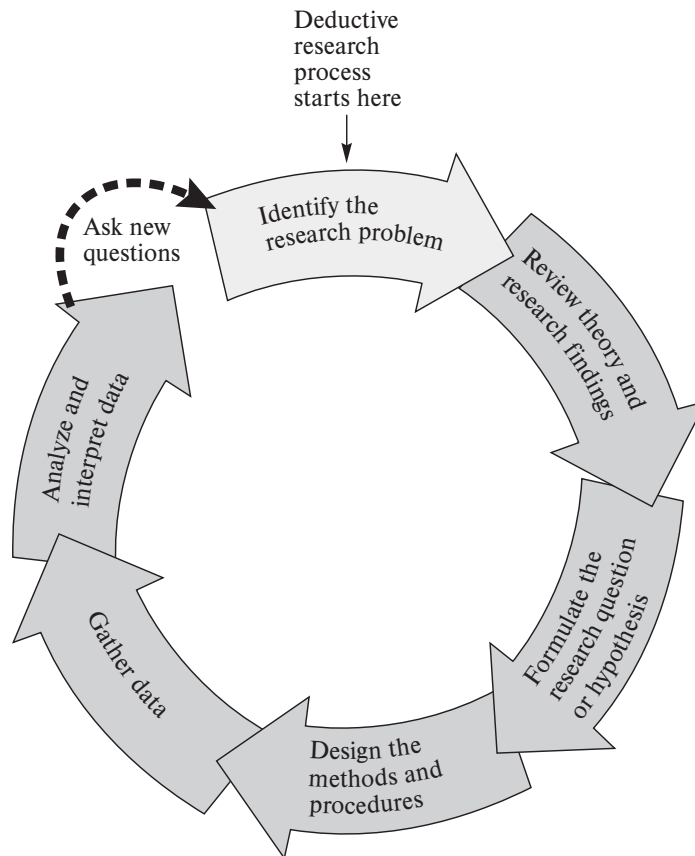


FIGURE 2.1 *The Deductive Research Model*

correct. This type of research process is **deductive** because the researcher is moving from a position that has already been worked out by others. From theory, the researcher develops hypotheses or research questions, which are then tested by collecting data. Ultimately, the collected data are interpreted against the theoretical position.

After entering the research process at “identify the research problem,” the researcher uses theory to guide the investigation. Next, based upon theory and the research findings accumulated, the literature review is developed and presented as a foundation for the research project. The literature review is also the basis for formulating the research question or hypothesis. The researcher then selects the research methods that will help in answering the questions or hypotheses. Then data are gathered and interpreted. Although the researcher will be able to answer the initial questions at this point, the research process is not necessarily complete.

Recall that research is prized for its heuristic characteristic. If research has heuristic significance and values building on the work of others, answering one question should lead to other questions for which answers are needed. Thus, as answers are developed from the interpretation of data, the research process starts over again with a new question.

Inductive Research Model

Alternatively, a researcher suspends judgment in beginning his or her research study and develops a plan for seeking literature and gathering data that is framed around the foundation of a research question (Figure 2.2). After the data are gathered and examined, theories are developed in response to what the data reveal. This type of research process is **inductive** because the researcher is moving from the specifics of the data

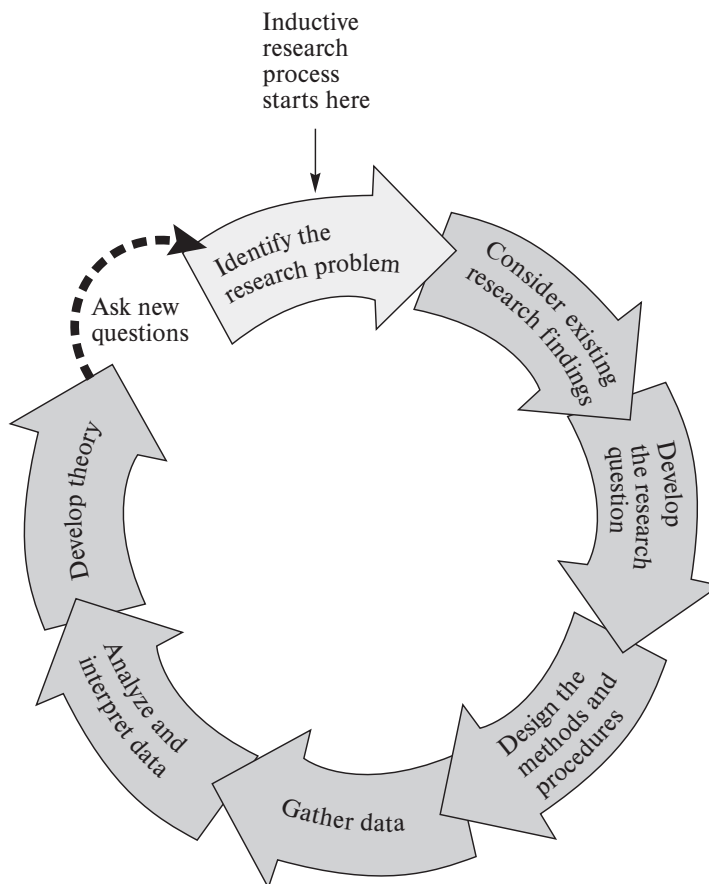


FIGURE 2.2

to the more general explanation of theory. Again, the research process is complete, but only temporarily. Reports of these findings are likely to encourage researchers to uncover new problems and start the process again.

Research as a Process

Regardless of where one enters the research process, all of the steps are linked together. The steps are interdependent. At times, researchers believe they have completed a step and proceed to the next—only to find that they do not have the most effective foundation from which to proceed. And so they must go back and work through the preceding step again. As you will discover in the class for which you are reading this book, research is not evaluated solely on its outcomes. Rather, the process that leads to the outcome, or research result, is equally important.

Whether a researcher uses the deductive or inductive process, the first research activity is to identify the research problem, often stated as a broad question. Formulating the problem or question into a research question or hypothesis formalizes the research as social science. Research conducted according to the deductive model, which typically relies on quantitative methods, is described in greater detail in Chapter 4. Research conducted according to the inductive model, which typically relies on qualitative methods, is described in greater detail in Chapter 14. Throughout the research process, researchers must be concerned with issues of ethics and integrity. Communication research is conducted on, with, or through others. Thus, the communication researcher must seriously consider and evaluate the integrity of the research proposed. Moreover, the research must balance the scientific needs of the researchers (as well as society's need for knowledge) with the physical, psychological, and emotional needs of those who participate in the research. These issues are addressed in Chapter 3. But, for now, let's turn to the ways in which researchers identify the communication problem or question of interest.

IDENTIFYING THE RESEARCH PROBLEM

Remember that research is the process of asking questions and finding answers. Identifying the research problem or broad research question is always the first activity in the research process.

Formulating Research Ideas

If you cannot think of a communication problem or broad question, think back to the theories you have discussed in other courses. In reading and learning about theory that describes, explains, and predicts communication behavior, did one strike you as being particularly relevant to your personal or professional life? Did one cause you to ask questions differently than you had in the past? Did a theory intrigue you because it provided a description, explanation, or prediction that seem incomprehensible? Or did a theory help you understand your desired profession in a different way?

Another way to begin to develop a communication problem or broad question to study is to think of what happened today to you, or in front of you, that illuminated a communication dilemma, problem, or question? What are your family, friends, and colleagues talking about? How are their issues related to communication? Answering questions like these can help you think of a communication problem. Often we tend to think that the daily problems of living we experience are unique to us. In reality, individual experiences may differ in some ways, but generally they are connected to and mirror the experiences of others. Thus, consider whatever problems you are facing as a good source for research ideas.

Still unsure about a communication problem to pursue? A good way to survey contemporary problems and issues is to check what topics are being featured by news sources. Many of the major news outlets—*The New York Times*, *USA Today*, ABC News, CBS News, NBC News, CNN, Fox News, and others—are good places to find communication problems that need exploration.

Turning Communication Problems into Preliminary Questions

With the communication problem identified, you can begin to frame preliminary questions, which will help you search through library holdings and electronic databases. The preliminary question is not the final research question you will see in both the deductive and inductive models. The research question is more formal and the foundation for the research project. The preliminary question is still important, however, because it can lead you to the formal research question or research hypothesis. Before you seek library resources,

use the following steps to evaluate your preliminary question. Taking this step will help make your library search more effective.

Let's say you are interested in the impact of divorce on children's abilities to communicate their feelings. Closer examination shows that there are two issues here: The first is impact of divorce; the second is children's abilities to express their feelings. You could do library research on each topic separately, but doing so might not lead you to the answer. By formulating your interest in this topic into a preliminary question, "How does divorce affect children's abilities to communicate feelings?" you are more likely to uncover resources that can answer your question or that will help you determine that the question has not been adequately answered.

But take another look at that question. What does the question assume? The question asks "how" divorce impacts children's abilities. A better first step would be to find out *if* divorce affects children's abilities to communicate. Thus, "Does divorce affect children's abilities to communicate feelings?" will be a better place to start, for it keeps you from falsely assuming that divorce does influence children in this way.

As another example, you might recognize that the team leader of your shift at work has difficulty in organizing and conducting meetings. You wonder if there is anything you can do as a team member to help. In this case, questions could be, "Are leaders the only team members responsible for how meetings are conducted?" or "In what ways can a team member maintain the role of team member and help the leader conduct more effective meetings?" or "What risks do team members take when they help facilitate meetings?" Now look at these questions for the assumptions embedded within them. In the first, you are asking about the basic assumption of who is responsible for conducting team meetings. But notice in the second and third questions that the answer to the first question is assumed.

Rephrasing the communication problem as a preliminary question is the first step in seeking answers. Phrasing your question helps define your research area and narrow your search. Most important, questions help you uncover the links between concepts and help you identify assumptions you have made. And, as they frequently do, questions lead to more questions. If you end up with several questions, try to order them into a list of which questions must be addressed first, second, and so on. Or if questions

in one area suggest questions in another area, try to draw a diagram of the relationship of the questions to one another. Regardless of how you identified your problem, remember to formulate it into a question that focuses on communication. For example, a news report on the prevalence of bullying in schools might end up as "In what ways do playground and recess activities promote or inhibit the occurrence of verbal bullying among children?"

Take a look at the examples of communication problems in the Try This! box "Developing Initial Questions to Guide the Research Process." When you have finished revising a few of the examples listed, do the same with communication issues that interest you.

Evaluating Your Questions

After you have developed your preliminary question, it's time for evaluation. Use these questions to make a final assessment before you spend time searching the research literature:

1. Is the question clearly stated?
2. Do others agree about the clarity of the question?
3. Have you asked only one question? Not two, three, or four?
4. What is the communication orientation of the question? In other words, what communication practice, policy, rule, procedure, or consequence is being investigated? Is your focus on symbols, messages, or meanings?
5. Is the question phrased in such a way that it is not biased toward a particular answer or solution?
6. Is there some way to observe or measure the communication phenomenon of interest?
7. Can you research this question given the limitations of time and resources?
8. Who would be interested in the answer to the question?
9. How could those who are interested use the information?

If you are satisfied that you are asking the preliminary question in the most effective way and that the question is appropriate for communication research, you should identify the keywords or phrases to use in your search of library resources.

TRY THIS!**Developing Initial Questions to Guide the Research Process**

Read the example given in the table for the topic of text messaging. Notice how the general topic is developed as a communication problem and then stated as a preliminary question. Then the question is analyzed for any underlying assumptions. With these assumptions uncovered, the preliminary question should be restated so that it is more specific. Use the topics and communication problems listed in the following table to develop the preliminary questions to start the research process.

<i>Topic</i>	<i>State as Preliminary Question(s)</i>	<i>Examine Question(s) for Assumptions</i>	<i>Restate Preliminary Question(s)</i>
Texting	What are teenagers texting when they drive?	All teenagers have access to texting. All teenagers who drive, text.	What do teenagers explain as their motivation for texting while driving?
Parents talking with their children about racial discrimination			
Careers for communication graduates			
Encouraging someone who is going through a difficult personal situation			

USING LIBRARY AND DATABASE RESOURCES

With preliminary questions developed, you are now ready to conduct your search for resources. It is tempting to conduct all your research online, but working in the library has advantages as well. The most important advantage: You can ask a librarian for help.

If your library has the *International Encyclopedia of Communication* or the *Encyclopedia of Communication Theory* in print or online, these are good first steps in looking for resources for your preliminary question. The encyclopedic entries cover all aspects of communication. Each entry provides definitions, major themes of research, and several key citations. Regardless of where you gather resources, ask questions about the credibility, authority, and relevance. Also consider how current the source is. Look for more recent sources if necessary. How something is presented (in print or online) does

not necessarily make a source good or bad. If you select a source for your literature review or research project, you should feel confident that it is the best source for your project. It is also important to gather several resources, so you can compare definitions and research findings. The next section describes several ways to find resources for a literature review or for a research project.

Scholarly Journals

Generally, your initial search should be for scholarly articles published in academic journals. Articles in journals give you the opportunity to see what research questions and hypotheses have been studied by communication scholars. You can read their arguments for the research study they designed, and read how they collected and analyzed their data. Most important, you can read about what they learned in conducting the study.

Journals are edited and published by scholarly professional associations, universities, or publishing houses dedicated to scholarly work. Scholars submit their manuscripts to a journal. The journal editor sends the manuscript out for review to at least two reviewers who do not know the identity of the author. This process allows reviewers to give their honest and critical feedback about the manuscript. After this peer review, the editor makes a decision about revision and publication. Often, journal articles are published only after an extensive review and revision process. In addition, most journals have a very high rejection rate, generally 80 to 90 percent. As a result, journal articles are regarded as quality research written by knowledgeable experts. Some of the journals specific to the discipline of communication that publish social science research include:

<i>American Communication Journal</i>	<i>Journal of Broadcasting & Electronic Media</i>
<i>Annals of the International Communication Association</i>	<i>Journal of Children</i>
<i>Communication and Sport</i>	<i>Journal of Communication</i>
<i>Communication Education</i>	<i>Journal of Computer-Mediated Communication</i>
<i>Communication Monographs</i>	<i>Journal of Family Communication</i>
<i>Communication Quarterly</i>	<i>Journal of Public Relations Research</i>
<i>Communication Reports</i>	<i>Journal of Social and Personal Relationships</i>
<i>Communication Research Reports</i>	<i>Journalism & Communication Monographs</i>
<i>The Communication Review</i>	<i>Journalism & Mass Communication Quarterly</i>
<i>Communication Studies</i>	<i>Communication Quarterly</i>
<i>Communication Theory</i>	<i>Management Communication Quarterly</i>
<i>Environmental Communication Journal</i>	<i>Mass Communication & Society</i>
<i>Health Communication</i>	<i>Political Communication</i>
<i>Howard Journal of Communications</i>	<i>Public Relations Review</i>
<i>Human Communication Research</i>	<i>Qualitative Research Reports in Communication</i>
<i>International Journal of Listening</i>	<i>Research on Language and Social Interaction</i>
<i>Internet Research</i>	
<i>Journal of Applied Communication Research</i>	

<i>Science Communication</i>	<i>Western Journal of Communication</i>
<i>Southern Communication Journal</i>	<i>Women's Studies in Communication</i>

Of course, there are other journals in the communication discipline as well as journals that are multidisciplinary (such as *Business and Professional Communication Quarterly*, *Cultural Studies ↔ Critical Methodologies*, *International Journal of Business Communication*, *Journal of Contemporary Ethnography*, *Journal of Health Communication*, *Management Communication Quarterly*, *Qualitative Inquiry*, *Small Group Research*). Finally, journals in other disciplines (e.g., management, psychology, and sociology) do publish research of interest to communication scholars. In some cases, the research of communication scholars can be found there as well.

Journals can be accessed in a number of ways. First, your library subscribes to article databases that index communication research. Your library is likely to subscribe to either *Communication Source* or *Communication & Mass Media Complete* (often shortened to CMMC). Both contain abstracts or full text for articles published in more than 700 journals in communication, mass media, and related fields. Many times, the full text of journal articles is available through that database. If an article you want is not in full text through this or another database, look directly for the journal. Your library may subscribe to print and online issues of hundreds, maybe thousands, of journals.

Should you look for journal articles on your library website? Or through a Google search? If you want to use Google, be sure to use Google Scholar, which is different from a more general Google search. Google Scholar searches for scholarly books and articles, and this scholarly, authoritative focus distinguishes it from an ordinary Google search. While Google Scholar covers all academic disciplines, it is not comprehensive and you will not always be able to access the full article.

Thus, when doing research for your communication courses, it can be easier and more productive to use the online resources of your library. Why? Your library likely provides access to an online database specific to the discipline of communication. Searching this database will lead you to the communication journals in which research articles appear. There is no cost to you for reading the online or print version. Moreover, Google Scholar does not contain everything that is included in your library's databases. Check with your instructor or

librarian to identify the database and journals that will satisfy your needs during your literature search.

Books

Your library also has a collection of books and edited books. Communication scholars often write or edit books about their research expertise. If you have identified an author who writes in the area you are conducting research, use his or her name in a search of the library catalog. Or use one of your keywords as part of a title or subject area search in the library catalog.

You should also check to see if your library carries *Communication Yearbook*. This annual series from 1977 to 2016 is an edited collection of literature reviews and topical critiques. For example, in Volume 40 (2016), *Communication Yearbook* published literature reviews on the topics of relational aggression, socialization of new organizational employees, effects of news framing, and many other communication issues. You will have to check the table of contents of each *Yearbook*. If you find a chapter that helps you, be sure to review the resources in the reference section. In 2017, *Communication Yearbook* was replaced with the journal, *Annals of the International Communication Association*.

Finally, check to see if your library has a handbook related to your area of research. Handbooks are focused on one context of communication and provide extensive reviews and critiques of literature, theories, and methods in a particular area (examples are *Sage Handbook of Family Communication*, *Routledge Handbook of Environment and Communication*, *Oxford Handbook of Political Communication Research*, *Sage Handbook of Interpersonal Communication*, and *Emerald Handbook of Group Communication*). To find which handbooks your library carries, use the keywords *handbook* and *communication* to search your university's catalog database. If you find a chapter that helps you, be sure to review the resources in the reference section.

Online Resources

Because anyone can post a website and because so many websites are posted, finding information on the web is not a problem. But finding credible, authoritative information can be. Remember that all search engines are not the same; each search engine has a different mechanism for finding websites even when you use the same keywords for searches.

There is nothing wrong with doing resource searches on the web. Online materials are not necessarily unreliable. To find credible and authoritative sources online, use this list of questions.

1. What type of domain does the site come from? Generally, .edu and .gov sites are considered more trustworthy than .org and .com sites, which more typically denote a commercial organization.
2. Who publishes or owns the site? How can you tell? If the person or organization in charge of the website did not write the material, the website should clearly identify the original source of the information.
3. How current is the website? Look for dates to indicate when the site was created and updated.
4. Can you tell who (a person or institution) created the site? Is there a name, e-mail address, or an *about us* or *contact us* link? Where do those links take you?
5. Are the author's credentials or affiliations displayed on the website?
6. What is the purpose of the website? To inform? Persuade? Sell? Is advertising clearly labeled as such?
7. If a source is quoted or paraphrased on the web page, is information about that source provided so you can independently verify the accuracy of the information?

Anyone can produce a website. This means that you must carefully assess what is presented. A website can present research that appears to be scholarly. But unless the site includes citations and identifies the author and his or her qualifications, it may be very difficult to gauge the authenticity or validity of the material.

Analyzing Your Resources

After you have found several articles, books, book chapters, or websites, you need to evaluate these sources. For journal articles and chapters, read through the abstracts, and then read the discussion section. Read the foreword or introduction and first chapter of each book. Check the list of references at the end of the articles or chapters. Could any of the sources listed there be helpful to you? Are you able to answer your question? Should your question be revised based upon

what you have found? At this point, you have reached another decision point. If you can answer your question to your satisfaction, your search is over. If you cannot satisfactorily answer your question, or if you found conflicting answers in your search, you can write your question in its final form. You are ready to develop your research project.

Answering the following questions can help determine if you have enough information or if you need to continue on with a detailed search. Your library search has been adequate if you are satisfied with your answers to the following questions:

1. How much has been written on your issue?
2. How recent or relevant is the material?
3. Has some critical event occurred or societal value changed that could challenge the interpretation of the answers to the questions asked?
4. Who has done the most work on your issue?
5. Where has research on the topic been published?
6. What aspects of the issue received the most attention?
7. What questions about the issue have been answered?
8. What aspects of the issue have been ignored?
9. Are there reasons to replicate, or repeat, studies that have been conclusive?
10. What other issues have you found related to your primary one?

If you have searched thoroughly and diligently, you are likely to have uncovered the materials you need to answer your question or to develop your research project. Remember, however, that it is nearly impossible to find all the available literature. Finding everything is not a prerequisite for most student research projects. But you should have information available from a variety of authors, from a variety of publication outlets, and from sources published over time. Analyze your resources for their breadth and depth of coverage.

As you review the literature you have found, take good notes and save or print all the relevant pages. Check out the table of contents as well as subject and author indexes of books. Identify books that are helpful by noting the authors' names, complete book title, year of publication, place of publication, publisher, and call number. Identify journal articles that are helpful by noting the authors' names, complete article title, year of publication, complete journal title, volume number, page numbers, and the doi number of the journal article. You will need all this information to develop a reference list if you cite the material in your research project.

Adjusting the Question

As you work through the search strategies, do not hesitate to adjust your preliminary question. As you discover new information, you will develop a more sophisticated appreciation and understanding of the

TRY THIS!

Searching for Sources

1. Using the keywords *media* and *ethics*, perform a database search (e.g., *Communication Source, Communication and Mass Media Complete*) available through your university library. Do the same keyword search on Google Scholar. How would you describe and explain the differences?
2. Your question is "What nonverbal behaviors demonstrate confidence in public speaking?" What keywords would you use in your basic search? What synonyms could be used? Conduct this search and report on your findings.
3. In your basic search for references on communication in stepfamilies, you have found that communication scholar Paul Schrodt is the author of several studies. How do you interpret this information? How would you use this information in your detailed search?

problem. Incorporate the information you read into your preliminary question. In particular, did your search uncover theories that can help you make sense of your question? Could several theories provide the basis for competing claims or solutions to your preliminary question? As you find new sources of information, it is likely that your preliminary question will become more narrowly focused. Keep a list of all resources that you are using. You will use these again as you develop your research project and as you write up your research report.

It is time to stop adjusting the preliminary research question when two conditions are satisfied. First, you should be comfortable that your question is specific enough to be interesting. Second, you should be comfortable with the quality and quantity of resources you can use to help you answer your question. At this point, it is time to move on to analyzing the resources you have collected.

USING AND ORGANIZING YOUR RESOURCES

Getting started on a stack of resources is not easy. The first step is to read the title and abstract or summary of each resource. Next, read the problem statement, which is usually part of the literature review or precedes the literature review in a journal article or book chapter. It identifies the research objectives. Although the exact research questions or hypotheses may not be presented here, the problem statement generally suggests them. The problem statement answers the question “Why did the researchers conduct this study?” Generally, reading this section will help you decide if the article or research report will be helpful to you.

In the literature review, the authors present the literature that supports their formal research questions and hypotheses. Read the research questions and hypotheses carefully because the results or conclusions from the study are tied directly to them. For now, skim the methods and results section, and then move on to the discussion section. What did the scholars find? What were the answers to the research questions? Did they confirm or not confirm the hypotheses they proposed? Remember that the conclusion to the investigation is found in the discussion section. When a research question or hypothesis is presented in the literature review, it is still tentative.

Tracking Others’ References

As you read the articles, books, and chapters, you will find in-text citations. This documentation device provides information within parentheses for the research work cited by the author. Each in-text citation includes the authors’ last names, year of publication, and the page number if material is quoted word for word. To track down this citation, turn to the reference list at the end of the article, book, or chapter. This is labeled with the heading “References,” “Bibliography,” or “Works Cited.” For each citation you will find a complete bibliographic entry—all the information necessary for you to find the article, book, or chapter. Look at the “References” section at the end of each chapter for an example.

Why would you want to track down the articles, books, and chapters that other authors have used? There are several reasons. First, these published works are part of an ongoing scholarly conversation. Something briefly mentioned in one article might lead you to another article that could provide valuable background information for you. Second, you may have missed this source in your library search. Tracking down the references used by others gives you the opportunity to fill in the gaps of your literature search. Third, authors draw conclusions about the work of others and then base their arguments on those conclusions. If you are not familiar with the literature, you have to take the authors’ conclusions for granted. Rather than relying on their evaluative biases, you could track down the reference, read it, and draw your own conclusions.

Organizing What You Have Found

Now, how will you organize the resources you have found so you can write a research report or a research proposal? First, look at the body of literature you have collected. Are there one or two authors whose names appear several times? If so, start your reading there. Researchers tend to work on lines, or streams, of research. This means that scholars become known for conducting research on certain issues. If the names of one or two scholars do not stand out, organize your literature by publication date. To get a historical overview, read from the older literature through to the newer literature. Another way to begin is with an article or chapter that reviews or summarizes a particular line of research. If you find conflicting ideas, theories, or findings, organize resources into similar categories.

**AN ETHICAL
ISSUE****Using the Ideas of Others**

Anytime you use the work of others, you must provide a citation indicating in the text of your paper what idea you are using and whose idea it was. This is called an in-text citation. There are two types. The first is the citation for a direct quotation. In this case, you indicate with quotation marks the exact words you copied from the original work and provide the page number in addition to the author's last name and the year of the publication. This way, anyone who reads your paper can locate the exact source.

Metzger et al. (2021) report the results of a study investigating how people show reactions of belief and disbelief when misinformation is shared on social media. On page 135 of their article, these authors first use an indirect citation to tie their study to the existing literature. Next the authors directly cite a second study to further substantiate their claim.

A sense of connection with the online community is developed through news sharing (Lee & Ma, 2012) and sharing information with others contributes to satisfying the need for social interaction, which “helps people clarify their opinions, and gives them an opportunity to work out their personal positions relative to media content” (Weeks & Holbert, 2013, p. 215).

A complete list of your references must be provided at the end of your paper. This enables the reader to locate the source of any in-text citation you used. Most social science researchers use the citation and reference style of the American Psychological Association (7th ed.), which is the style used in this book. Check with your instructor to see which style you should use.

Summarizing What You Have Found

One method is to arrange the material using major and minor points as primary and secondary headings, much like a traditional outline. A second method is to arrange the findings in chronological order, usually working from the oldest to the most recent. This is particularly helpful if you want to demonstrate how a question was answered or how an issue developed over time. A third method is to ask a series of questions and respond with what you found for each question. In this case, working from the broadest question to the narrowest question is recommended. A final method for organizing your material is to work from general to specific (a deductive approach), or build from the specific to the general (an inductive approach).

Whatever approach you take to summarizing what you found in your literature search, the primary

question should be “Have I answered my question?” If you have, you will need to think creatively about how to replicate, extend, or challenge those conclusions as the basis for a research project. Generally, there is little value in repeating the work of others if you agree with their conclusions and find no major faults in how they designed and conducted the research. However, there is value in replication when the original study is dated, when societal values and practices surrounding the issue have changed or are changing, or when you find a flaw in the study that makes you question the results. For example, societal values about many adult relationships (such as same-sex marriage, cohabitation, divorce, single parenting, interracial adoption) have changed significantly. Research in these areas may be necessary to see if the conclusions drawn in the past about communication in these relationships are relevant now.

**DESIGN
CHECK****Evaluating the Literature You Found**

As you can see, the research process starts with your identification of a research topic and then examines the topic further as a communication problem through your search of the research literature. You will use the articles and chapters that you find in the literature review for your study. Communication research is indexed on several databases, so if you cannot find what you need, be sure to ask a librarian for help. As you search the literature, be sure that you are collecting studies that are published in communication journals or are authored by communication scholars. Scholars in many disciplines study communication, but the most complete and thoughtful focus on communication is published by communication scholars.

As you read and sort the literature you found, you might find that scholars disagree. Or you might find that research conclusions have been drawn about most, but not all, of the issues surrounding your issue. If scholars disagree, you could develop a research study to examine the disagreement. If some, but not all, issues are answered, you could develop and conduct the study that fills in this gap. Remember that one of the characteristics of science is that it is heuristic. This means that conclusions, or answers to questions, help identify new questions to be answered. You are now ready to write the literature review, which is described next.

WRITING THE LITERATURE REVIEW

The **literature review** is the framework of the research investigation. More specifically, it interprets, integrates, and critically analyzes the published literature relevant to your study (Northey et al., 2012). It includes a summary of the scholarly literature the researcher studied to design and develop his or her research study. Thus, it provides the structure and orientation for the research project and the rest of the written research report.

Although there are many ways to organize a literature review, all have an introduction, a body, and a conclusion (Northey et al., 2012). The introduction of the literature review describes the communication problem to be examined and notes very briefly the significant research results or theory that exists. The body of the literature review provides detail about existing

studies—those that both support and contradict the position you are advocating. Most important, the literature should be developed as an argument—one that leads the reader to the research questions or hypotheses you are examining or testing, which is the conclusion of your literature review.

Introduction to the Literature Review

The problem statement is usually positioned at or near the beginning of the literature review. It describes the communication problem you are investigating and broadly describes the research objectives. For example, the first paragraph of the literature review should be a road map for the rest of the review. Specify what you are going to cover and what you hope to accomplish. Although the exact research question or hypotheses are not stated directly here, they are suggested. The problem statement answers the questions, “What precisely is the problem?” and “Why is this problem worthy of study?” In other words, the problem statement explains why the researchers conducted the study and why you and others should be interested.

Look at how van Swol et al. (2015) present the problem statement for a study about the detection of deception in face-to-face and online groups.

Most people are bad at detecting deception in deception experiments and have detection rates slightly above chance (Bond & DePaulo, 2006). This article uses an ultimatum game to examine how sender demeanor and truth bias affect suspicion and detection

accuracy. Furthermore, we examine if lie detection accuracy improves in computer-mediated communication (CMC) environments where cues to a sender's demeanor are limited. Finally, we investigate differences in deception type across two different communication channels, looking specifically at deception by omission and deception by commission. (pp. 1116–1117)

From this paragraph, a reader would know what the problem is and how severe the problem is perceived to be. This type of problem statement presents a compelling argument for the study that follows.

Body of the Literature Review

The literature review is a historical account of the variables and concepts used in the study. In some cases, this history can be substantial. While it can always be succinctly summarized, it should never be excluded. A good literature review also includes the latest research, generally including publications within the last few years. But a good literature review goes beyond a simple description of previously published work to include analysis, synthesis, and a critique of this work. It should provide an assessment of previous efforts and suggest why these issues should be explored again or in new ways. The literature review is also the place to point out gaps in previous research, or to develop new arguments by integrating or considering the research literature in new ways.

In addition to acknowledging themes and gaps in the literature, a good literature review seeks to identify and establish relationships among previously published work and the study presented. The writer should address the major assumptions that have guided earlier work and address how the current study accepts or rejects those assumptions. Finally, the literature review should state clearly how the current study contributes to the understanding of theory or theoretical assertions. The literature review will become the first section of your research report. So it should focus on theory, theories, or findings from research studies that provide a foundation for the study.

One way to introduce theory into your literature review follows this pattern (Creswell, 2014). First, identify the theory by name. Next, describe the central hypothesis or argument of the theory. This does

not need to be detailed; rather provide a general description of what the theory describes, explains, or predicts. Third, describe who has used the theory and their findings and conclusions. Finally, explain how the theory will be adapted to your study and research context.

As you select articles for your literature review, you are likely to see certain authors, or even one article, cited over and over. This is an indication that the author is central to the discussion of this research issue or that this one article is considered a landmark or classic study. Another way to identify noted authors or classic studies is to turn to a textbook in the area of your research study. These authors and studies are often highlighted there. Locate the published article so you can read it in its original form and in its entirety. Otherwise, you will have to rely on others' summaries and evaluations.

Finally, as you include the work of other researchers, be careful to distinguish between assertions made in the literature review and conclusions supported with evidence in the discussion section. It is easy to confuse the two. In the literature review, researchers often make predictions or claims as they set up their research questions and hypotheses. But these claims can be different from conclusions found in the discussion section. Claims made in the discussion section are based on data from the research study. So, even though a researcher may hypothesize something in the literature review, support for that claim is not known until the study is completed and the data analyzed and interpreted.

Thinking of a literature review as describing the relationships among previous studies helps authors avoid long strings of references or quotations, which could lead readers to miss the trends or themes that the researcher found in the literature. In essence, the literature review is effective to the degree that the researcher helps the reader see and understand key terms and phrases, and relationships among issues that the researcher saw in his or her development of the research project.

Organizing the Literature Review

There are different forms for organizing a literature review. Table 2.2 reviews several of the most common approaches.

TABLE 2.2 Ways of Organizing a Literature Review

<i>Organizing Framework</i>	<i>Description and Uses</i>
Chronological order	In temporal order based on publication dates. Especially good for tracing the development of an issue, concept, or theory.
General to specific	Information about the broadest issue is presented first, followed by research that deals with more narrow aspects of the issue.
Contrast-comparison	Research that is similar is separated into sections to highlight differences among the types or topics of studies.
Trend identification	Research is separated into identifiable trends. Trends are placed in order of importance to the study.
Methodological focus	Studies using the same methodology are grouped together and compared to other methodologies.
Problem-cause-solution	Description of the problem is followed by description of its cause and suggestion of a solution.
Theoretical focus	Studies using the same theory as a foundation are grouped together and compared to other theories.
Topical order	All information about a topic is presented in separate sections. Topics are introduced sequentially in order of importance or in order of appearance in research questions or hypotheses.

Writing a literature review is no small task. Actually, it is much like writing a paper or essay for a class that does not require you to collect data to support your claims. Many of the writing techniques useful for that type of paper are also helpful in research reports.

Use headings and subheadings to structure the review and to distinguish among its major and minor sections. Use internal summaries to signal the end of one section, and use transitions to signal that another section of the literature review is beginning. Within sections, major points can be enumerated with “first,” “second,” “third,” and so on. Finally, remember that a literature review is not a long string of quoted material. Your integration of the materials, evaluations, and summaries of the literature are important elements of the literature review because your opinions and arguments shape the research project.

Literature reviews are written in the third person. Some communication scholars use the first person, although the third person still appears to be preferred. Because research reports are considered formal writing, some other advice includes:

- Spell out acronyms the first time they are used.
- Avoid contractions; instead write out both words completely.
- Avoid slang expressions (e.g., “you know”).
- Eliminate bias in your writing with respect to sex, gender, sexual orientation, racial or ethnic group, disability, or age.

Concluding the Literature Review

The literature review concludes with a presentation of the research questions or hypotheses. Typically, the research questions and hypotheses served as a summary of your analysis of the existing literature. Each hypothesis or research question should be separately stated as a simple sentence or simple question. And each hypothesis or research question should be identified as such, usually with the notations H1, H2, or RQ1, RQ2, and so on. Besides helping to identify specific questions and hypotheses, this notation form creates a shortcut later in the results section because the researcher can simply refer to H1, or the first hypothesis, without restating it again.

TRY THIS!**Analyzing What You Have Found**

As you read through the resources you have found, these questions can help you identify the most important aspects for your research project. In each journal article or book:

1. Look for the definitions of important concepts and ideas.
2. Identify the arguments the author is making. What evidence (i.e., data, theory) does the author present for those arguments?
3. What examples does the author give?
4. What insights can you draw from the article or chapter? What is new, useful, or has implications for your research project?
5. It is not likely that any study will be exactly like the one you want to design and conduct. How can you adapt ideas from this article or chapter to your study?

(Adapted from Berger, 2011)

SUMMARY

1. Researchers seek answers to questions.
2. Theory is developed and tested through research.
3. Research can be a deductive or an inductive process.
4. The steps of the deductive process are identifying the research problem, reviewing existing theory, formulating a research question or hypothesis, designing the methods and procedures, gathering data, and analyzing and interpreting data.
5. The steps of the inductive research process are identifying the research problem, considering existing research findings, developing the research question, designing the methods and procedures, gathering data, analyzing and interpreting data, and developing a theoretical explanation.
6. Both the deductive and inductive research processes are circular and cyclical as the final step, asking new questions, starts the research process again.
7. The first step in both the deductive and inductive research processes—identifying the research problem—consists of identifying a communication issue, turning this into a preliminary question or set of questions, conducting a library search, and adjusting the question, if necessary.
8. Library research can reveal if the answer to your question is available, but not known to you.
9. If the answer is neither known nor available, research must be conducted to uncover the answer.
10. Evaluate your preliminary questions for their underlying assumptions, completeness,

and clarity prior to conducting the library search.

11. Find scholarly articles published in academic journals or scholarly books.
12. When you find an article or book that may be helpful, take notes and document all the citation information.
13. Your preliminary question may require adjustment as you discover new information.
14. Using what you found in the library search, organize your material by major and minor points, in chronological order, by answering a series of questions, or from the general to the specific or from specific to general.
15. A literature review is your integrated analysis of the scholarly literature and concludes with the statement of the research questions or hypotheses.

KEY TERMS

deductive
inductive

literature review

To learn how to access a chapter PowerPoint presentation, appendices, and more, visit <https://www.mheducation.com/unitas/highered/support/connectaccessinginstructorresources.pdf>

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