

## CHAPTER TWO

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# The Research Process: Getting Started

### *Chapter Checklist*

*After reading this chapter, you should be able to:*

1. Explain why the research process starts with identifying the research problem.
  2. Develop a preliminary question from a topic or issue.
  3. Explain why a preliminary question is superior to a topic in conducting library research.
  4. Evaluate preliminary questions for their completeness and clarity.
  5. Conduct a basic and detailed library search.
  6. Identify and use communication discipline indexes and databases.
  7. Adjust your preliminary question based on what you have found in the library search.
  8. Glean the basic ideas from reading the abstract, literature review, and discussion sections of a research article.
  9. Track a citation back to its original source.
  10. Effectively summarize and report what you have found in the library.
  11. Describe what a theory is and its role in communication research.
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As a student researcher, you might find it difficult to make the transition from learning about research to finding the appropriate research literature to becoming part of the academic conversation about research. This chapter will help you identify ways of “getting into” the research conversation. After reading this chapter, you should be more comfortable and effective in conducting library research for your own research project and for assignments in other courses. Much of what you will find in the library will be related to the theories researchers use to describe, predict, and explain communication behavior. This chapter will also describe what theory is and how it is developed through the research process.

## THE RESEARCH PROCESS MODEL

In Chapter 1, I introduced the metaphor of researcher as detective. Like detectives, researchers are seeking 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 detective skills, or the ability to search and track down information that fits his or her needs.

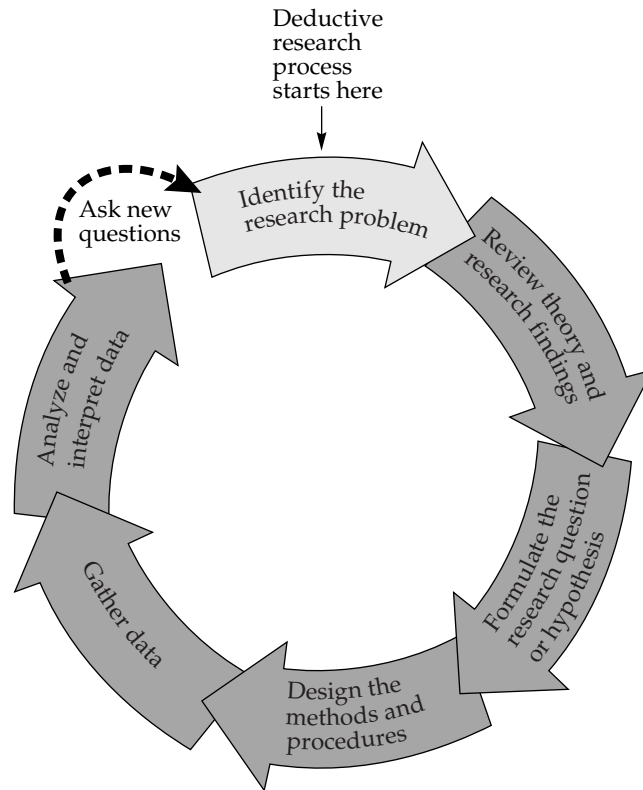
The model for conducting research is similar to the plan a detective would follow in conducting an investigation. There are rules to be followed and multiple paths that can be taken according to the questions asked. Once started, the research process or investigation proceeds logically and steadily. Working from what you already know and understand, your primary objective as detective or researcher is to find information that answers the questions. Yet, there are obstacles and pitfalls along the way that may keep you from accomplishing your goal. You must be vigilant and pay attention throughout because your ability to respond to the changing environment presented to you is really the key issue and determines whether you

are successful in answering your question. Just as detectives conduct their investigations within the letter of the law, researchers conduct their investigations according to the traditions of scholarly research.

If you were trying to explain how a detective conducts an investigation to someone who was unfamiliar with the process, you might, in general, say that detectives seek answers to unanswered questions, assess the situation presented them, and then identify the procedures that are most likely to answer the questions presented by the situation. In the ideal situation, when the investigation was over, the questions would be answered. But detectives would not be able to explain in advance exactly how to find the answer to any one question because they would not be able to predict which clues they would uncover and which they would not. Certainly, an experienced detective has developed strategies that can help with the investigation. As a researcher, you can rely on scholarly standards, traditions, and norms to help you answer your question. Yet, in neither case would your strategies or predictions be certain.

There are two models—or strategies—that can provide a general explanation of what the research process is about, how one conducts research, and what one expects to be able to conclude at the end. 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 detective or researcher begins with a theory and then gathers evidence, or data, to assess whether the theory is correct. This type of research process is **deductive** because the researcher is moving from a known or assumed position supported by a theory to the particulars of the data.

After entering the research process where it begins—“Identify the research problem”—the researcher uses theory to guide the investigation. Next, based upon theory and research findings, the researcher formulates the research question or hypothesis. Continuing on from there, the researcher then selects the research methods that



**FIGURE 2.1** *The Deductive Research Model*

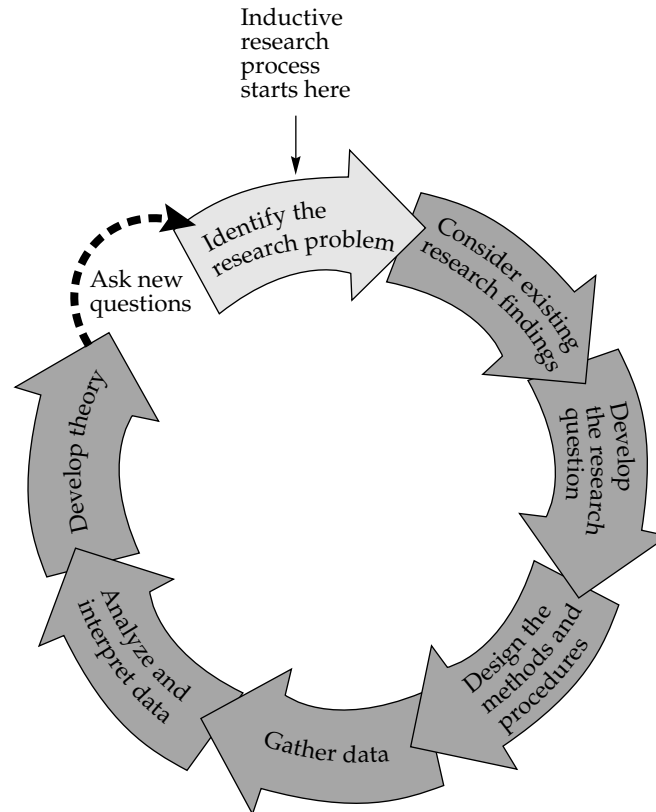
will help in answering the questions or hypotheses. Then data are gathered and interpreted. Although the researcher will be able to answer the initial questions at this point, the research process is not necessarily complete.

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.

Alternately, a detective suspends judgment in beginning his or her detective work and develops a plan for 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 to the more general explanation of theory. Once again, the research process is complete, but only temporarily. Reports of these findings are likely to encourage researchers to identify new research topics and start the process again.

Regardless of where one enters the research process, all of the steps are linked together. The steps are not independent activities but rather 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



**FIGURE 2.2** *The Inductive Research Model*

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 or topic. This process of identification is the focus of the next section of this chapter. Formulating the problem 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 3. Research conducted according to the inductive model,

which typically relies on qualitative methods, is described in greater detail in Chapter 4. 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 5. But, for now, we need to discover how researchers identify the communication problem or topic of interest.

## IDENTIFYING THE RESEARCH PROBLEM

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Remember that research is the process of asking questions and finding answers. Just as a detective must survey the crime scene to get an idea of where to begin, you must identify a topic or an issue as a focus for the project and the questions that will follow. Identifying the research problem is always the first activity in the research process.

### Formulating Research Ideas

If you cannot think of a topic or problem, let your daily experiences guide you. 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 complaining or talking about? If you did not have to work, what would you do with your time and your money? Answering questions like these can help you think of a topic or 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 topic or problem to pursue? A good way to survey contemporary problems and issues is to check what topics were on the front page of today's newspaper or presented on the radio or television. All of the major news outlets—*The New York Times* (<http://www.nytimes.com>), *USA Today* (<http://www.usatoday.com>), ABC News (<http://www.abcnews.go.com>), CBS News (<http://cbsnews.com>), NBC News (<http://www.msnbc.com>), CNN (<http://www.cnn.com>), and others—have webpages that are updated daily, sometimes hourly.

### Turning Topics Into Preliminary Questions

With the topic 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, the foundation for the research project. The preliminary question is still important, however, because it can certainly lead you to the formal research question or research hypothesis. Remember to frame the preliminary question before you use library resources so that you can organize the time you spend there.

How does your topic lead to preliminary questions? Let's say you are interested in the impact of divorce on children's ability to communicate their feelings. Closer examination shows that there are two topics 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 ability to communicate feelings?" you are more likely to seek 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 ability to communicate. Thus, "Does divorce affect children's ability to communicate feelings?" will be a better place to start, for it keeps you from falsely assuming that divorce does impact children in this way. Formulating the question this way specifies your interest, which can keep you from spending unproductive time in the library or at your computer.

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?" "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 that are 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 topic 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 questions frequently do, they 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 topic or problem, remember to formulate it into a question that focuses on communication. For example, a local news item on the prevalence of sexual harassment in your county government might end up as “In what ways does organizational culture promote or inhibit the occurrence of sexual harassment?”

Take a look at the examples of topics and 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 to topics and problems that interest you.

### Evaluating Your Questions

Once 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 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?

Once 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 are ready to go to the library or use online library resources.

## USING LIBRARY AND DATABASE RESOURCES

Armed with preliminary questions, you are now ready to visit the library and use online library resources. Which is the better place to start? It depends on what is available to you and your style of working (for example, the hours the library is available, your degree of computer literacy). Although working on a computer from home certainly has advantages, working in the library has advantages as well. Until all library documents are available online and in full-text format, you may find only titles and abstracts on electronic databases. When you work in the library you can actually put your hands on the books and articles referenced online. You can read the material to see if it fits your needs. Perhaps most important, you can ask a librarian for help.

### Library Resources

The library can be an overwhelming place. Where should you start? The library contains books, scholarly journals, magazines, newspapers, audio-visual materials, and more. Generally, your search strategy as a communication student should produce scholarly articles published in academic

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

Read the example given in the table for the topic of internet chat rooms. Notice how the general topic or problem is stated as a preliminary question. Then the question is analyzed for any underlying assumptions. For example, the sample question assumes that all people have access to the internet, use chat rooms on the internet, and can explain why they use chat rooms. With these assumptions uncovered, the preliminary question should be restated so that it is more specific. Use the topics and problems listed below to develop the preliminary questions to start the research process.

<i>Topic or Problem</i>	<i>State as Preliminary Question(s)</i>	<i>Examine Question(s) for Assumptions</i>	<i>Restate Preliminary Question(s)</i>
Internet chat rooms	How do people use internet chat rooms?	All people have access to the internet. All people who use the internet use chat rooms. People will be able to explain why they use chat rooms.	Do web users who use chat rooms report about their chat-room interaction as they would a face-to-face conversation?
Parents talking with their children about guns and violence			
Careers for communication graduates			
Talking with superiors at work			

journals; scholarly books written by one or multiple authors; or edited collections with a series of chapters written by different authors.

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 review, the editor makes a decision about revision and publication. Oftentimes, journal articles are published only after an extensive review and revision process. In addition, most journals have a very high rejection rate, generally 80–90%. 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>Communication Education</i>	<i>Journal of Communication</i>
<i>Communication Monographs</i>	<i>Journal of Computer-Mediated Communication</i>
<i>Communication Research</i>	<i>Journal of Social and Personal Relationships</i>
<i>Communication Quarterly</i>	<i>Journal of the International Listening Association</i>
<i>Communication Reports</i>	<i>Journalism &amp; Mass Communication Quarterly</i>
<i>Communication Studies</i>	<i>Public Relations Review</i>
<i>Communication Theory</i>	<i>Qualitative Research Reports in Communication</i>
<i>Health Communication</i>	<i>Research on Language and Social Interaction</i>
<i>Howard Journal of Communications</i>	<i>Southern Communication Journal</i>
<i>Human Communication Research</i>	<i>Western Journal of Communication</i>
<i>Journal of Applied Communication Research</i>	<i>Women's Studies in Communication</i>
<i>Journal of Broadcasting &amp; Electronic Media</i>	

Of course, there are other journals in the communication discipline as well as journals that are multidisciplinary (such as *Journal of Contemporary Ethnography*, *Management Communication Quarterly*, *Small Group Research*). Finally, journals in other disciplines (for example, 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. Check with your instructor or librarian to identify the journals that can be found in your library and that will satisfy your needs during your literature search.

### Library Search Strategies

There are a variety of search strategies, and over time you are likely to develop one that works best for you. Try the search strategy described here. It is structured as a general-to-specific search, and it makes use of keywords rather than subject terms. Keywords provide a broader net for capturing the materials you seek. You may find some modifications necessary according to the availability of materials. If your library does not have one of the reference databases listed, ask a librarian for replacement suggestions. Start with a basic search to see what you can find.

#### Basic Library Search

- Step 1:* Identify the key terms in your question. For example, in the question “Does divorce affect children’s ability to communicate feelings?” the key terms are *divorce* and *children*. But also try *adolescents* and *teenagers* as alternative key terms.
- Step 2:* Using the keywords search function of your university’s catalog holdings, search separately for each term identified in step 1. As you peruse these listings, notice additional terms or phrases other researchers use to refer to your topic. Does one author’s name consistently appear? Do any journals in your library include one of your search words in its title? This step helps you gain familiarity with the broad literature that supports your question.
- Step 3:* Again using the keywords search function of your university’s catalog holdings, search for the keywords together (for example, *divorce children*). For some university databases, you may need to insert *AND* between the



two keywords (for example, *divorce AND children*). This step narrows your search and examines the specific relationship in which you are interested.

*Step 4:* Examine some of the resources steps 2 and 3 have uncovered. By looking through these resources you may find alternative keywords (for example, *kids* instead of *children*) that could assist your search. If a journal is uncovered in steps 2 and 3, be sure to check out several issues; an article that interests you might appear in one issue and not another. One way to do this easily is to go to the last issue of each volume. Most journals list the table of contents for the entire volume at the back of the last issue for that volume. For a journal with four issues per volume check issue 4 of any volume to find the comprehensive index. If you find a helpful book, check the stacks for books on either side of the one you are looking for. Similar books are shelved together.

*Step 5:* Using your original or revised set of keywords, check your library for at least one of the following databases designed specifically for the communication discipline: (1) *Communication & Mass Media Complete*; an online database that indexes and provides full text for hundreds of journals across the speech communication and mass media disciplines. (2) *ComAbstracts*; an online database that indexes a broad spectrum of articles and books in the communication field. It can be searched by word, phrase, or author. (3) *Communication Abstracts*; this hard-copy source provides the abstracts of journal articles organized according to subfields within the communication discipline.

*Step 6:* Using your original or revised set of keywords, check the online database *Expanded Academic Index*. If your search so far has led you to specific

authors, check this database for their names as well.

*Step 7:* Stop and examine what you have found. Read through the abstracts of the journal articles you found; 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 and books. Could any of the sources listed there be helpful to you?

*Step 8:* With the information you found, are you able to answer your question? Remember from the beginning of this chapter that for some questions you ask, the answer is available, though unknown to you. This process of library research is designed to make that answer known. If you are able to answer your question to your satisfaction, you can stop searching. If not, your question needs to be revised, and you need to do some additional basic database searching.

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 topic?
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 topic?
5. Where has research on the topic been published?
6. What aspects of the topic received the most attention?
7. What questions about the topic have been answered?
8. What aspects of the topic have been ignored?

9. Are there reasons to replicate, or repeat, studies that have been conclusive?
10. What other topics have you found related to your primary topic?

If you cannot answer these questions, your basic library search is incomplete. You may need to once again revise your preliminary question. Taking the search steps in the detailed library search is likely to help you answer your question. This stage must be conducted in the library. If you are unfamiliar with any of the reference materials listed, do not hesitate to ask a librarian for assistance.

#### *Detailed Library Search*

*Step 1:* Check to see if your library carries *Communication Yearbook*. This annual series is an edited collection of literature reviews and topical critiques. 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.

*Step 2:* 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 *Handbook of Family Communication*, *Handbook of Communication and Aging Research*, *Handbook of Political Communication Research*, *Handbook of Interpersonal Communication*, and *Handbook of New Media*). To find which handbooks your library carries, use the words *handbook* and *communication* as keywords in your university's catalog database. If you find a chapter that helps you, be sure to review the resources in the reference section.

*Step 3:* Check the online database Web of Science, which includes the Social Sciences Citation Index. This database is one of the most comprehensive indexes of scholarly research. You will be most effective searching for your

keywords in this multidisciplinary database with the help of a reference librarian. In our example, you would check for *divorce* and *children* or any other pairings of words your basic search uncovered.

*Step 4:* Stop and examine what you have found. Read through the abstracts of each journal article or chapter you found, 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.

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 of the available literature. Finding everything is not a prerequisite for most undergraduate 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 copy or print all of 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,

**TRY THIS!****Searching the Research Literature . . .**

1. Using the keywords *media* and *ethics*, perform a basic search as described above. Using the information you obtain, what questions can you develop? What recommendations would you make before performing a detailed search?
2. Your question is "What nonverbal behaviors demonstrate confidence in public speaking?" What keywords would you use in your basic search? Conduct this search and report on your findings.
3. In your basic search for references on communication problems in marriages, you have found that Mary Anne Fitzpatrick is the author of several studies. How do you interpret this information? How would you use this information in your detailed search?

year of publication, complete journal title, volume number, and page numbers of the journal article. You will need all of this information to develop a reference list if you cite the material in your research project. If you download an article or photocopy a journal article, print or copy the entire article, including the reference pages. Saving money by not copying these pages may be a mistake if you decide later that you want to check out a reference listed in the text of the article.

**Other Reference and Database Resources**

Your library is an important source of reference works and databases. Some are directly relevant for searching the communication literature. Others can help you identify literature from related disciplines, such as psychology, sociology, and management. If you have completed the basic and detailed searches and still are in need of additional literature, check out the databases listed below. Given electronic access, most libraries have moved to electronic databases. Check with your library to see which of these other common references and databases are available for your use.

<i>Reference or Database</i>	<i>Coverage</i>
ABI/Inform	Business and management journals
ERIC	Education journals and convention papers
Periodical Abstracts	Social science journals

PsychINFO

Psychology and select related disciplines

Sociological Abstracts

Sociology and related disciplines

**Getting Resources From the Web**

There are a variety of uses for the World Wide Web as you conduct your search of the literature. First, you can use any search engine or metasearch engine to enter your keywords or key phrases to see what is on the web. You might find the homepages of authors who wrote the articles, books, and book chapters you have collected in your library searches. You might also find survey or poll results related to your topic archived on the webpages of news organizations. Even threads of discussions from newsgroups or web discussion groups can appear in these searches.

When you look at these resources, be sure to examine both the date and author, or sponsor, of the material or webpage. Because anyone can post information to the web, you must take responsibility for evaluating the validity and utility of the information.

**Adjusting the Question**

As you work through the search strategies, don't hesitate to adjust your preliminary question. As you discover new information, you will develop a more sophisticated appreciation and

**DESIGN  
CHECK****Reader Beware**

“Reader beware! The information posted on this website is not factual.” It would be great if websites came with such warnings. But they do not. It is up to you as a consumer to sort through what web information has utility for your research project. The easiest way to evaluate web-based information is to use common sense. Simply put, does the information make sense? Or do the information and claims seem far-fetched? Can you identify the sponsor of the website? Are claims and information documented?

Use the following questions to guide you in evaluating information from webpages (Dochartaigh, 2002):

1. Is it clear who is responsible for material on the webpage? An individual? An institution? Is there information for you to evaluate the author’s or organization’s authority?
2. If a source is quoted or paraphrased on the webpage, is information about that source provided so you can independently verify the accuracy of the information?
3. Are biases and affiliations clearly stated on the webpage?
4. Is advertising clearly labeled as such?
5. Are opinions labeled as such? Or, are they disguised as an article or a report?
6. Is there a posting date for the website? Is there a date for when the webpage, or any of the material on the webpage, was updated or revised?

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.

understanding of the 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? Are there several theories that could provide the basis for competing claims or solutions to your preliminary question? As you find new sources and information in the library, 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.

## READING SCHOLARLY ARTICLES AND BOOKS

Once you have collected the articles and books, there is still plenty of work to accomplish. How do you make sense of a large body of material, particularly when conclusions among them conflict? The first step is to evaluate the quality of the research. Conducting research is difficult and

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

A detective relies on information and clues provided by others. So does a good researcher. It would be impossible for one researcher to develop, document, and validate everything one needed to know about a subject or topic. In research, then, we must rely on the ideas and conclusions drawn by 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.

Reel and Thompson (2004) conducted a three-phase study to investigate interpersonal strategies of negotiating condom use. On page 102 of their article, they use the following direct quote in-text citation.

In addition, Brown and Levinson (1987) tied the notion of face directly to "mention of taboo topics, including those that are inappropriate" (p. 670).

The second type of in-text citation is for situations in which you have summarized or paraphrased the ideas or conclusions of others. This in-text citation is documented with the author's last name and year of publication. An example of an indirect in-text citation from the same article on page 100 is

Regarding condom negotiation, feelings of embarrassment are especially strong in men (Cline & McKenzie, 1994); in particular, men are especially likely to feel that suggesting condom use will diminish the chances of sexual intercourse (Bryan, Aiden, & West, 1999).

A complete list of your references is 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, which is the style used in this book. Check with your instructor to see which style you should use.

complex; and, as a result, some research is of higher quality than others.

Here are some recommendations for evaluating the quality of research. First, look at the body of literature you have collected. Are there one or two authors whose names appear over and over? 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 topics. If the names of one or two scholars don't 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 start is to begin with an article or chapter that reviews or summarizes a particular line of research. *Communication Yearbook* is a particularly good source for this type of literature review. These sources are likely to provide you with the cumulative efforts of many researchers over a period of time.

**Identifying Primary Ideas and Conclusions**

Starting with the abstract is always a good place to find the primary ideas presented in an article or chapter. The abstract should describe what

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

As you can see, the research process starts with your identification of a research topic and 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 different databases, so if you are not finding what you need be sure to ask your reference 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.

the study was about, give a very brief description of how the study was completed, and provide a short description of the results.

Next, read the problem statement, which is usually part of the literature review or precedes the literature review. 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 as 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 will include 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 of the information necessary for you to find the article, book, or book chapter. Look at the “References” section at the end of this book for an example.

Why would you want to track down the articles, books, and book 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.

**Summarizing What You Have Found**

Now that you have searched the literature, you have references from several sources. There are many ways in which to organize what you 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 would be 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 a topic 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). An effective way to conclude a written report on what you found is to generate new questions that take you in a different, but related, direction.

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. If your search has been thorough but your question still has not been answered, you are ready to move forward with a research project. In either instance, considering the role of theory is your next step.

## THE ROLE OF 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 with the purpose of explaining and predicting the phenomena” (Lustig, 1986, p. 451). Although some researchers—particularly qualitative researchers—would disagree that all theories need to predict, at a minimum theories should describe and explain communication phenomena. Theory would be invalid or have little utility for the practice of communication if it could not be used to describe, predict, or explain.

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, then the theory is altered or discarded. In this theory–research link, theory is the map by which the researchers conduct their studies. As described earlier, 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.

Research is also necessary to develop theory. Generally, qualitative researchers start with a research question and use their findings to both answer the question and contribute to theory development. In this theory–research link, the theory, or map, is drawn from the experiences 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.

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. Second, theory helps “integrate data which otherwise would remain mere collections of facts” (Brooks, p. 4). This issue returns us to the definition of theory given earlier. 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. There are six basic steps to formal theory building (Lustig). Each is described below.

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 scientist’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. A decision must be made concerning 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 scientist’s job is to discover the commonalities among events that allow them to be classified and then 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 through step 4.

**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.



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

Find two or three journal articles for a communication topic 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 will discuss the implications of the study as a challenge to the theory or as further development or expansion of the theory.

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.

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

**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, 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.

In fact, theory is used 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 inquiry is a process of developing and testing theory. So there are direct relationships among questions asked, data observed, and theory development (Littlejohn, 1999; Miller & Nicholson, 1976). Quantitative research generally uses theory to develop questions to direct data collection. Examine the deductive and inductive research models (see Figures 2.1 and 2.2). See how theory drives quantitative research? Alternately, 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 does one process of inquiry dominate all quantitative research or all qualitative research. The point here is that meaningful inquiry either drives theory or is theory-driven.

Also worth mentioning is that theory cannot 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.

## CONTINUING WITH THE RESEARCH PROCESS

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If your assignment was to develop a preliminary question for a research project, your work has just started. 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 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 marriage, living together, divorce, single parenting, adoption) have changed significantly within the past 20 years. Research in these areas may be necessary to see if the conclusions drawn in the past about communication in these relationships are relevant now.

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 topic. 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.

Having identified your research topic, searched the literature, and developed a preliminary question, you are now ready to develop a formal research question or research hypothesis. The information you gained from your library search will provide direction in this next research step. These activities will be explored in greater detail in Chapters 3 and 4.

**SUMMARY**

1. Researchers seek answers to questions.
2. Library research can reveal if the answer to your question is available, but not known to you.
3. If the answer is neither known nor available, then research must be conducted to uncover the answer.
4. Research can be a deductive or an inductive process.
5. 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.
6. 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.
7. Both the deductive and inductive research processes are circular and cyclical as the final step, asking new questions, starts the research process once again.
8. The first step in both the deductive and inductive research processes—identifying the research problem—consists of identifying the topic or issue, turning the topic into a preliminary question or set of questions, conducting a library search, and adjusting the question, if necessary.
9. Evaluate your preliminary questions for their underlying assumptions, completeness, and clarity prior to conducting the library search.
10. Use either the basic or detailed search strategy to find scholarly articles published in academic journals or scholarly books.
11. When you find an article or book that may be helpful, take notes and document all of the citation information.
12. Your preliminary question may require adjustment as you discover new information.
13. The abstract states the primary ideas presented in an article or chapter.
14. The literature review usually concludes with the researchers' research questions and hypotheses.
15. The discussion section includes the answers to the questions the authors raised.
16. 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.
17. Theory is developed and tested through research.

**KEY TERMS**

deductive

inductive