COMMUNICATION RESEARCH

Communication Research

ASKING QUESTIONS, FINDING ANSWERS

SIXTH EDITION

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North Carolina State University

Mc Graw Hill

COMMUNICATION RESEARCH: ASKING QUESTIONS, FINDING ANSWERS, SIXTH EDITION

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BOXED FEATURES

PREFACE

Thank you for picking up this book and reading the preface. I am a communication researcher who conducts and publishes quantitative and qualitative research. I am always learning something new about research methods, and, perhaps, most central to this preface—I really enjoy teaching research methods courses. I designed this research methods book to help students overcome their fear of research methods and to provide instructors with foundational material for classroom use. Over the previous editions, including this one, I have received a substantial amount of feedback of how the book could be more effective for both instructors and students. Most directly, I receive feedback from my students when I teach undergraduate and graduate research methods courses. More formal feedback has come from the publisher who seeks professional reviews of textbooks before an author begins work on a new edition. Other times, feedback has come informally from conversations at conferences or in e-mails from instructors or students using the book. I'm grateful for everyone who has taken the time to comment, to point out what's good or bad, and to suggest what they would like to see in a new edition—and what they hope I will remove.

So, simply, the goal of this book is to be helpful to instructors in teaching research methods and to be supportive to students who are learning research methods.

My other goal is to focus on communication research. I emphasize *communication*, as all of the examples used in book are drawn from the published research of communication scholars in communication or communication-related journals. I hope you will (and you will encourage your students to) go back to these cited sources.

I've written this book to be most useful to students (undergraduate or beginning graduate level) who have little or no familiarity with communication research. I have used previous editions at both the undergraduate and graduate levels, and know others have done the same. I hope that the book hits a middle ground that is engaging for undergraduates but can also provide a foundation for beginning graduate students (with the help of additional reading material and more sophisticated in-class exercises). Across the chapters, I've selected techniques and methods that are foundational to more advanced methods and ones that students can learn to use in research settings.

What I've learned from the publisher's examination of the research methods book market and from my conversations with colleagues who teach research methods is that no two instructors teach the research methods course in the same way. Some faculty focus on quantitative; some faculty focus on qualitative; and some do a mix of the two. Some of us insist that students *do the math*; others of us want statistics presented conceptually. Some of us want more of the philosophical traditions that are the underpinning of quantitative and qualitative methods; some don't. Thus, I've had to make choices. But my choices were guided by a principle I've long believed in: Researchers must have a broad understanding and appreciation of all methodologies—quantitative and qualitative—to read and understand published communication research and to conduct their research effectively.

To that end, the sixth edition of this book continues to emphasize three important points:

1. All research starts with an initial research question or problem.
2. Research is a process in which the researcher makes important decisions at crucial points about what to do and how to do it. This is in contrast to viewing research simply as a series of steps to be completed.
3. To answer the varied nature of questions about communication, one must be familiar with both quantitative and qualitative methodologies.

Communication Research: Asking Questions, Finding Answers covers basic research issues and processes

for both quantitative and qualitative approaches appropriate for communication students with little or no previous research methods' experience. The text's guiding principle is that methodological choices are made from one's research questions or hypotheses. This avoids the pitfall in which students learn one methodology or one methodological skill and then force that method to answer all types of questions.

WHAT'S NEW TO THE SIXTH EDITION AND ORGANIZATION OF THE TEXT

The book presents a balance of quantitative and qualitative research because the communication scholarship embraces both approaches. In addition to updating the published research examples and research references sources (over 100 new references are included), I've retained the organization and the continuation of the increased focus on qualitative research initiated in the fourth edition.

Based on feedback from reviewers for the fourth edition, the book is divided into three sections. In the first section, Research Basics, students are introduced to the research process, its basic principles, and research ethics. Chapters in this first section are introductory to research in general and are neutral with respect to methodology. The issues raised in these initial chapters are issues that both quantitative and qualitative researchers must address. Section 2 focuses on quantitative communication research methods whereas Section 3 focuses on qualitative communication research methods.

Across all chapters, emphasis was placed on updating examples and reference sources to align the book with current research practices in the communication discipline. All of the new references are drawn from the most recently published literature. Across all of the chapters, I continued to be more inclusive of examples drawn from research conducted in other parts of the world and by researchers outside the United States. Likewise I updated technology examples to reflect the current mediated environment.

The book uses the APA (7th ed.) style manual for presentation of examples and references, as that is the style requirement of most social science communication journals.

Material previously in the print appendices has been moved to the book's website, www.mhhe.com/keyton6e, where instructors and students will also find PowerPoint presentations for each chapter, test banks, and an instructor's manual. As with the last edition, a note about online resources available to students concludes each chapter. I update the resources at my own website (www.joannkeyton.com/research-methods) each academic year. There, you can also find short quizzes. Additional instructor resources and assignments can be found on Connect. Whether you assign students to work with the resources inside or outside of class, or expect students to use these materials on their own, the online resources provide students with ways to enhance and test their knowledge of research methods.

FEATURES

The primary purpose of this textbook is to introduce students to communication research methods by meeting two objectives. The first objective is to help students become better consumers of the communication research literature by emphasizing effective methods for finding, consuming, and analyzing communication research. This objective is important because students are consumers of the communication literature through their participation in communication courses. The second objective is to provide a path for students who wish to develop and conduct research projects. To those ends, this book provides coverage of the entire research process: how one conceptualizes a research idea, turns it into an interesting and researchable question, selects a methodology, conducts the study, and writes up the study's findings. I believe that students who can effectively navigate, select, and use the communication research literature can become effective researchers, and, reciprocally, that students engaged in communication research will be able to more effectively use the existing research literature. Regardless of the role in which students use their research knowledge, they must be able to read and understand the communication research literature.

This book provides several features to help students succeed in both roles.

1. The research process is situated in communication research about symbols, messages, and meanings.

2. Over 100 new research and reference source citations were added; these new citations were pulled from the 2018 through 2021 (at the time of book's production) published communication and communication-related journals found on Communication and Mass Media Complete.
3. Examples cover the breadth of the discipline (e.g., persuasion, interpersonal, group, health, organizational, mass communication, and public relations).
4. A boxed feature labeled *Design Check* alerts students to the practical and logistical issues that student researchers should consider when designing a study. These are the same issues that students should ask of the research studies they read, as how these issues are addressed by researchers influences study outcomes and data interpretations.
5. A boxed feature labeled *An Ethical Issue* alerts students to issues of research ethics and integrity. Not only must researchers balance practical and logistical issues, they must do so while addressing ethical issues that occur when *people* and their communication artifacts are used as the basis of research. *Chapter Checklists* begin each chapter to highlight for students the essential learning objectives for each chapter. End-of-chapter summaries provide point-by-point summaries of information presented in the chapter. Stated simply, these factual statements can help direct students' study of the material. Key terms are boldfaced within the text and listed at the end of chapter. Key term definitions can be found in the glossary at the end of the book.
6. Continuing the active pedagogy approach of the book, *Try This!* boxes are placed throughout the chapters to engage students in short research activities that can be used in the classroom with individuals or groups, or as short homework assignments. Finally, the book focuses on students. It is written for them—to their level of knowledge and understanding about human communication, the communication research literature, and the relative research processes.

My goal in writing the chapters was to explain the research steps and identify the steps researchers take in developing and conducting communication research. With study and instruction, students should be able to use this material and integrate it with what they know and are familiar with from their other communication courses to accomplish two objectives: (1) to be more analytical and make more sophisticated interpretations of the communication research they read and (2) to design and conduct basic quantitative and qualitative research studies.

TEACHING AND LEARNING SUPPLEMENTS

The sixth edition of *Communication Research* is now available online with Connect, McGraw-Hill Education's integrated assignment and assessment platform. Connect also offers SmartBook for the new edition, which is the first adaptive reading experience proven to improve grades and help students study more effectively. All of the title's website and ancillary content is also available through Connect, including:

- A full Test Bank of multiple choice questions that test students on central concepts and ideas in each chapter.
- An Instructor's Manual for each chapter with full chapter outlines, sample test questions, and discussion topics.
- Lecture Slides for instructor use in class.

In addition, assignments can be found on Connect, including sample syllabi, teaching tips, chapter and course assignments, exercises, and worksheets for each chapter. Typically one or two pages in length, worksheets can be used as a homework or in-class assignment for students to review their knowledge and understand about the material presented. Also included on the website are PowerPoint outlines for each chapter and a test bank. Question types include objective (e.g., fill in the blank), comprehension (e.g., explain how academic research differs from proprietary research), and behavioral (e.g., given a set of variables the student is asked to write research questions and hypotheses). For those chapters that cover statistics or the analysis and interpretation of qualitative data, additional worksheets are available, which provide students with the opportunity to work several examples from raw data through to interpretation.

Student content can also be found at the same website (www.mhhe.com/keyton6e). Student content is not password-protected and includes short online quizzes and PowerPoint outlines for each chapter.

ABOUT THE AUTHOR

Joann Keyton (B.A., Western Michigan University; M.A., Ph.D., The Ohio State University) is Distinguished Professor Emerita of Communication at North Carolina State University. She specializes in group communication and organizational communication. Her current research examines the collaborative processes and relational aspects of interdisciplinary teams, participants' use of language in team meetings, the multiplicity of cultures in organizations, and how messages are manipulated in sexual harassment. Her research is field focused and she was honored with the 2011 Gerald Phillips Award for Distinguished Applied Communication Scholarship by the National Communication Association.

Her research has been published in *Business Communication Quarterly*, *Communication Monographs*, *Communication Research*, *Communication Studies, Communication Theory, Communication Yearbook, Group Dynamics, Journal of Applied Communication Research, Journal of Business Communication, Management Communication Quarterly, Small Group Research, Southern Communication Journal*, and numerous edited collections including the *Handbook of Group Communication Theory and Research*, *The Cambridge Handbook of Group Interaction Analysis*, *The Oxford Handbook of Organizational Climate and Culture, The Sage Handbook of Organizational Communication,* and *Annual Review of Organizational Psychology and Organizational Behavior*.

In addition to publications in scholarly journals and edited collections, she has published three textbooks for courses in group communication, research methods, and organizational culture in addition to co-editing an organizational communication case book. Keyton was editor of the *Journal of Applied Communication Research*, Volumes 31–33, founding editor of *Communication Currents*, Volumes 1–5, and associate editor of the *International Encyclopedia of Organizational Communication*. Currently, she is editor of *Small Group Research*. She was a founder and vice-chair of the Interdisciplinary Network for Group Research.

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I have also benefited from the many undergraduate and graduate students in my research methods course who continued to say that they did not understand after I had explained a concept or technique. Their questioning and my inability to always provide them an appropriate and acceptable answer provided the motivation for this text.

This sixth edition has benefited from the many instructors and students who have e-mailed me with questions or issues they would like me to address or explain further. I appreciate this feedback-in-progress and much of it has been incorporated here.

I also thank the scholars who reviewed this text during its development for the encouragement and wisdom they extended. Reviewers for the sixth edition were: Michael Ault, Weber State University; Laura Beth Daws, Kennesaw State University; Hailey Gillen Hoke, Weber State University; Qihao Ji, Marist College; Sarah Steimel, Weber State University; Lance Bennett, St. Edward's University.

Thanks to the McGraw Hill team, including Elisa Odoardi, product developer; Lisa Bruflodt, content project manager; and Kate Stewart, marketing manager. They helped me produce the finished product.

In the first edition, I thanked my colleagues—Tommy Darwin, Steve Rhodes, and Pradeep Sopory. In the second edition, I added Ron Warren, Debbie Ford, and Tracy Russo. Each of these six people have enriched and challenged my role as researcher. For the third edition, I added Paul Schrodt, Ryan Bisel, Stephenson Beck, and Renee Meyers for always returning the e-mails in which I proposed a methods question or conundrum. The book has benefited from those online discussions. (We miss you, Renee!)

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other disciplines. Being asked over and over why communication matters and how we study communication are conversations I never mind having.

I would also like to thank the many undergraduate and graduate students who have worked with me at North Carolina State University, University of Kansas, and University of Memphis on research projects and who have worked through research issues (and challenged me) in methodology classes. For me, methodology is the best teaching assignment I can have.

My Dalmatian family has changed once again. Between the fourth and fifth editions, both Sonny and Zoe passed and are now at The Rainbow Bridge with Cher, Potter, Maggie, and Sally. The Dalmatian rescues were looking out for me and lead me to Penny, aka Keyton's Lucky Penny. She may be deaf, but she runs 100 yards in 8.3 seconds. She has taken up the mantle of making sure that I live up to my promise that I will not forget what my *real* job is: to let the dogs in, let the dogs out, let the dogs in, let the dogs out. . . .

Jeff—this book is for you. As a student, you would not allow me to let you down. As a friend, you have not let me down. Your invaluable lessons, both professional and personal, helped me write this text in the beginning and through its revisions. Thanks for your continual support and encouragement.

Joann Keyton

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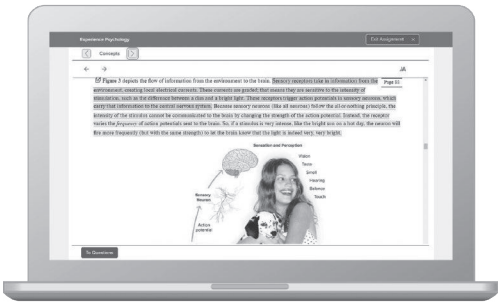

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CHAPTER ONE

Introduction to Communication Research

Chapter Checklist

After reading this chapter, you should be able to:

1. Identify instances in which you could use or conduct communication research as a student, use or conduct communication research as a professional, and use the results of communication research in your personal life.
2. Explain the goals of research.
3. Explain the relationship of research and theory.
4. Explain communication research as a social science.
5. Describe how communication research from a social science perspective is different from other forms of communication research and other forms of social science research.
6. Differentiate among the characteristics of science.
7. Distinguish between a research question and a hypothesis.
8. Describe the differences among questions of fact, variable relations, value, and policy.
9. Identify questions about communication that you believe are worth pursuing.

As a student in a research methods course, you have two roles. In one role, you are a consumer of communication research. You read summaries of research in your textbooks. In some courses, you may be required to read and analyze research articles published in the discipline's journals.

In the other role, you are a researcher collecting and interpreting data to answer research questions and hypotheses. These activities may be part of the course for which you are reading this book, an independent study, an upper-division course, or a capstone project. The information in this book can help you succeed in both roles, and hopefully can help you develop methodological curiosity. But before you identify yourself with either or both roles, turn your attention to answering the question "What is research?"

WHAT IS RESEARCH?

In its most basic form, *research* is the process of asking questions and finding answers. You have likely conducted research of your own, even if it was not in the formal sense. For example, as you chose which college or university to attend, you asked questions of students, faculty, and staff at the various institutions you were considering. You might also have looked on websites for answers to your questions or used the survey results from *U.S. News & World Report* that rank America's colleges and universities. As you made choices about your major, you examined the college website, talked to students and an advisor, and perhaps even talked to professionals in the field you believed you wanted to pursue. In these activities, you sought answers to your questions. Which school is best for me? Which school has the type of student experience I am looking for? Which schools are affordable for my major or degree? What is the annual income of alumni with my major? What kinds of career opportunities can I expect? By asking these questions, you were taking on the role of a researcher as you tracked down the information needed to make a decision.

Not only were you asking questions and seeking answers, but more than likely you were also relying on the results of research conducted by others. It would be impossible for you to answer your set of questions without such input. For example, for the question "What is the annual income of alumni with my major?" it would not be realistic for you to survey graduates in your field to discover their annual income. More likely you relied on a survey conducted by a professional association, an alumni association, or a news organization. You used the reported findings of their research to answer your question. Although someone else did the research, you still needed to evaluate the efficacy of their research to gauge the usefulness of their findings in answering your question.

You are also familiar with other types of research. News reports profile the results of research each day. You have heard the results of medical research reported in the news. During political campaigns, the results of preference polls are reported in the news and archived on news organization websites. And, no doubt, you have heard the results of research on racism and climate change. If you work, your company may have conducted research on the preferences of its customers or the quality of its products.

The point here is that research is all around us, often presented in ways that we would not recognize as research. Thus, **research**, as we will study it, is the discovery of answers to questions through the application of scientific and systematic procedures. Given this basic definition of research, you can see that you probably come into contact with several forms of research on a daily basis. You probably also use the results of research in making both personal and professional decisions.

The specific focus of this text is communication research—that is, quantitative or qualitative research conducted by communication scholars about communication phenomena. The focus is also on research conducted from a social science perspective, which is distinct from rhetorical research and also distinct from critical research. Yet, distinctions among these three perspectives—social science, rhetorical, and critical—are not always clear (Craig, 1993), and scholars working from the other perspectives do use some methods more commonly associated with social science research. As Stanfill (2012) suggests researchers and students should ask three basic questions. These are: "When a scholar conducts research, (a) how do they do it? (b) what do they see themselves as doing?, and (c) why do they do it?" (p. 6).

Social science research is conducted through the use of scientific and systematic methods, and it is based on the assumption that research can uncover patterns in the lives of people. When patterns of communication behavior are confirmed or discovered, scholars develop useful theories of communication that speak to the regularity of communication (Bostrom, 2003).

The research techniques and methods presented in this book are used to study the communication behavior of humans and the communication artifacts that people create. Although some people think of social science research as objective research, communication scholars use both quantitative (more objective) and qualitative (more subjective) methods—sometimes separately and sometimes in combination with one another. Both types of methods are **empirical**, meaning that both methods are based on observations or experiences of communication. Both types are needed because it is unlikely that quantitative or qualitative methods alone can provide complete answers to the many questions we have about communication behavior.

Your Relationship with Research

As discussed earlier, your relationship to this material can be conceptualized in two ways—as that of a researcher or as that of a consumer of research. You may take on the researcher role as a student, as an employee, or as a consultant. It is likely that the class for which you are reading this book will develop and conduct a research project as part of a class assignment. You may also decide that the process of research is interesting enough that you plan to take additional courses in research methodology. You might even decide to become a professor and spend much of your professional time as a researcher, finding answers to questions that interest you and matter to others.

After you graduate, you might find yourself in a professional position where research and data analysis is part of your regularly assigned job responsibilities. Positions in marketing and advertising, as well as jobs in political, organizational, and health communication, are just a few in which research plays a central role in decision making. Even though their organizational title may not be "researcher," many employees at managerial levels are responsible for collecting and analyzing data to help organizations and employees make more effective and efficient decisions. But are these examples of communication research? They could be. Some organizations conduct surveys or focus groups to discover the degree of effectiveness of their internal communication practices. Media organizations regularly use surveys or focus groups to discover if informational, advertising, or promotional messages are being received as intended.

You could become a consultant and conduct **proprietary research**, research that is commissioned by an individual or organization for its own use. Organizations use consultants to evaluate their internal communication systems and operational effectiveness. Political figures also commission proprietary research to discover how they are doing in the polls and which of their messages have the most influence on potential voters. Marketing and advertising research is also proprietary. Even though the results of proprietary research are private and intended only for the use of whoever pays for the research, the researcher uses the same procedures and practices used in conducting scholarly or academic research.

Your relationship with research can also be conceptualized as that of a consumer. You consume the research of others when you read scholarly books and journals. You also consume research when you see or hear personally or professionally interesting information presented in the media, and use information about products and services marketed to you. You might trust some sources more than others—or be more cautious—if you knew how the data were collected and analyzed.

When a class assignment requires that you find, read, and integrate research findings, you are in the consumer role as you collect information in the library or online to complete class assignments. Your ability to evaluate the information you collect has a direct impact on your ability to learn and prepare assignments.

As a researcher, you seek answers to questions by collecting data, and then interpreting results and findings to draw conclusions and make recommendations. As a consumer, you sort through results and findings others have provided. In this role you still need to distinguish good information from bad, test assumptions and conclusions drawn by others, and analyze the extent to which the research process others used fits your needs and situation. In this case, you need the skills to determine if the information you are using is misleading or misinterpreted from its original source.

It is easy to feel overwhelmed or intimidated by the particular vocabulary and traditions of research. But if you approach learning about research as another way to find information, you are likely to discover that formal research is an extension of the types of informal asking and answering of questions that you have done all your life. After reading this chapter, you should be able to identify how research acts as an influence on your life and in your decision making. Throughout the rest of this chapter and throughout this book as well, specific examples of communication research will be

AN ETHICAL ISSUE

Is Communication Public or Private?

In general, what ethical issues do you believe are raised when researchers study the communication behavior of others? About what communication situations would you feel comfortable answering questions? In what situations would you feel comfortable having a researcher observe you? Should some communication contexts remain the private domain of participants, closed to researchers' inquiries? What about intimate communication between significant others in the privacy of their home? What about the communication between parent and child when discipline is required? What about communication that occurs among co-workers as they joke about ways to ridicule their boss? How would you respond if a communication researcher asked you questions about your communication behavior during these events? What arguments could you develop both for and against communication scholars conducting research about such events? Should some communication behaviors or contexts be off limits to communication researchers? Why or why not?

highlighted as we explore how research is conducted—that is, how research is planned and carried out and how data are collected, analyzed, and reported. The goals of this book are to provide you with the basic skills of a researcher and to enhance your ability to be a better critic of the research reported by others.

SCHOLARLY RESEARCH

With this introduction to research in general, we now turn our attention to the formal and systematic method of scholarly research. Researchers, or scientists, who have been trained in research methods and procedures conduct research. These scholars formalize their questions into research questions or hypotheses, which provide the scope and direction of the research project as well as guide the researcher in selecting quantitative or qualitative methods to answer the questions. The questions or hypotheses direct what data the researcher collects. After the data are collected, the researcher or research team analyzes the data to draw conclusions about the hypotheses or answer the research questions. Essentially, conducting research is a matter of making claims based upon data (O'Keefe, 2004). Different types of claims require different types of evidence, or data, which may be quantitative data, qualitative data, or both.

But the process is not complete. Scholarly, or academic, research is also public and available to others. However, the process of making it public is certainly different than it is for research conducted by a polling organization, for instance. Scholarly researchers describe what they have done in a paper that is submitted to a conference for presentation, or to a journal or book for publication. Other experts in the field review the paper. This review serves as a test. Have the authors used an appropriate methodology to answer their questions or hypotheses? Have the authors explained the results thoroughly and logically? Are there critical flaws in the research process that jeopardize the results? The papers that make it through the review process are then presented at a conference or published in an academic journal or book. This is where the results become consumable.

Pick up a text that is assigned reading for one of your other communication courses. You will find many references to research within the chapters. As an example, the following passage is from my text *Communication and Organizational Culture: A Key to Understanding Work Experiences* (Keyton, 2011):

> For organizations such as AT&T, Cisco, and Red Hat, the culture is technologically grounded. That is, "the organization is not simply a culture that uses a technology; instead, it is a culture whose image, identity, and relationship to its environment are strongly associated with—indeed, dependent upon—the functionality of the technology it produces, services, or sells" (Leonardi & Jackson, 2009, p. 397).

The reference to the authors Leonardi and Jackson is called an in-text citation. If you turned to the references

listed at the back of the text, you would find the publication information, so you could look up the 2009 journal article written by these authors. As the author of the text, I relied on the research of Leonardi and Jackson. As the reader of this passage, you are also a consumer and could verify my interpretation of their work by going to the original source.

Goals of Research

Accumulating knowledge through research is a continuous process. One research study cannot answer all the questions about any one issue or topic. This facet of learning—building on the research of others—is central to any academic discipline. Thus, the primary goal of communication research is to describe communication phenomena as well as discover and explain the relationships among them. Continuing with the example just given, discovery occurred when Leonardi and Jackson conducted qualitative research using three types of data to explore the concept of technological grounding.

These scholars first built a case for their study by drawing on the published research of other scholars. Next, they collected data to be able to analyze each organization's culture before the merger and the organizational culture of the merged organization. Finally, they provided an explanation of how one company's organizational culture prevailed after the two companies merged. Thus, research is the process of discovery and explanation.

The research process, if approached systematically, can have one of four results: It allows the researcher to describe behavior, determine causes of behavior, predict behavior, or explain behavior. *Describing behavior* entails describing outcomes, processes, or ways in which variables (another name for the concepts we study) are related to one another. The following example illustrates a research project that enabled a researcher to describe behavior.

Guthrie and Kunkel (2013) analyzed participants' diary entries to answer the research question, "What are the motives for using deception in long-term romantic relationships?" (p. 145). Across 68 participants who kept diaries about the use of deception with their romantic partners, 332 motives for using deception were identified. From the participants' diary entries, the researchers identified six overarching categories for using deception. These were engaging in relational maintenance (e.g., engaging in deception to avoid a fight), managing face needs (e.g., protecting the partner's feelings), negotiating dialectical tensions (e.g., balancing the need for independence vs. togetherness), establishing relational control (e.g., ensuring that the partner behaves as desired), continuing previous deception (e.g., continuing a lie from the past), and motive unknown (e.g., a participant could not identify their motive for using deception). Guthrie and Kunkel (2013) asked a descriptive question; that is, what motives do people give for deceiving their partner? Their coding and analysis of that coding produced five different types of motives for lying. Thus, their results describe why people use untruthful messages in long-term relationships.

Determining the cause or causes of behavior is of interest to communication scholars because knowing the cause of something allows scholars to later plan interventions or develop training to increase the effectiveness of communication. For example, Cowan and Horan (2021) asked this research question: How and why are ICTs (information and communication technologies) used to initiate, maintain, and dissolve workplace romantic relationships? In interviews, the researchers asked participants to tell their story, and then "asked questions relating to ICT use in the (de)escalation of the relationship. If the relationship had terminated, [the researchers] asked questions about this dissolution including if, how, and why ICT was used" (p. 61). After analyzing the interviewee's responses, they found that "privacy was a predominant concern in both the initiation and maintenance stages" of the relationships, and that "technology was used to end many of these relationships including text messages and SNS because they are asynchronous and help both parties avoid more direct communication" (p. 69).

If researchers can describe communication events and identify their causes, then they can turn to *predicting behavior.* If behaviors are predictable, then we can anticipate what will happen in the future. In turn, this knowledge can help us make better decisions. Working from the principles of self-determination theory, Stephens and Pantoja (2016) wanted to test the prediction that students who participate in an activity for the purpose of experiencing stimulation and having fun are more likely to be those students who use mobile devices in classrooms. Almost 300 students studying a variety of disciplines responded to a survey measuring students' desires to multitask, how actively students

participated in class, and their academic motivation. The researchers used statistics to test the prediction that those students who multitask to increase their understanding, influence others, and provide social support to others in the classroom were more likely to multitask during class. The researchers verified their prediction by testing their hypothesis.

Going beyond describing, determining causes, and predicting, *explaining behavior* means understanding why a behavior occurs. For example, if researchers were able to determine how and why health campaigns work, more effective campaigns would ultimately result in a healthier society that spends less money on health care. But finding such an explanation is difficult and often requires a series of sophisticated research projects. Working from a well-developed and validated theoretical basis is an effective way to develop explanations for communication behavior. For example, Roberto et al. (2003) surveyed 488 junior high students about four aggressive behaviors: watching a fight, telling friends about a fight that is going to happen, insulting others, and fighting. For each of the aggressive behaviors except fighting, the explanatory model provided by the theory of reasoned action (i.e., the best determinant of actual behavior is behavioral intention) explained students' participation in aggressive behaviors. That is, students' attitudes about a behavior created behavioral intention, which, in turn, caused their participation in that behavior.

These four outcomes—description, determination of causes, prediction, and explanation—are closely related. New knowledge in one area will affect how questions are asked and answered in another.

Research and Theory

When researchers discover that one explanation about the relationship between phenomena occurs regularly, a theory can be constructed. Although many definitions exist for the term *theory*, in general, a **theory** is a related set of ideas that explains how or why something happens. In other words, a theory provides a way for thinking about and seeing the world (Deetz, 1992). More formally, a theory is a set of interrelated concepts, definitions, and propositions that presents a systematic view of phenomena. A theory specifies the relationships among the concepts with the objective of explaining and predicting the phenomena being studied (Kerlinger, 1986). As a result, theory helps us understand or make sense of the world around us. Of course, communication theories can help us understand our own communication behaviors as well as the communication behaviors of others (Miller & Nicholson, 1976).

With respect to communication, a theory is one or more propositions about people's communication behavior that enables a communicator to figure out how to communicate with particular individuals or in a given situation. The term *theory*, however, does not have one precise meaning. Rather, different definitions of the term are used because they promote different approaches to research (Craig, 1999; Jensen, 2008). The best research is driven by theory; that is, it validates a theory, further explains a theory, challenges an existing theory, or aids in the creation of theory. Theoretically driven research is built on the results of previous researchers, and it provides a foundation for subsequent researchers. Theory cannot be formulated, tested, and verified in one research study. Rather, theory is developed and tested over time. What we come to know as *the theory* to explain some phenomenon is the result of many research studies and the efforts of many researchers.

Cushman (1998) points out that "human communication is one of the most creative, flexible, and thus anti-theoretic processes in which human beings engage" (p. 9). Why? The complexity of communicating in multiple cultures with multiple, and sometimes conflicting, social goals provides the opportunity for multiple individual interpretations. Moreover, communication occurs in multiple languages with different sets of rules and practices. According to Cushman, this variability is one important reason communication scholars must look for the mechanisms or constructs that are constant regardless of the language used to communicate. Thus, communication researchers use systematic procedures and scientific principles to conduct research about how and why humans communicate as they do.

COMMUNICATION AS A SOCIAL SCIENCE

There are many methods of discovery and explanation, or many ways to view communication problems. Scholars conduct their research from paradigms that provide different explanations and functions for the

role of symbols, messages, and meanings in the process of communication. These paradigms also create differences in what researchers count as data. You have probably explored these different paradigms in courses on communication and rhetorical theory.

Broadly, this book explores the social scientific study of communication for which a wide variety of methods is available. This text will introduce you to both **quantitative methods** (generally speaking, research that relies on numerical measurement) and **qualitative methods** (generally speaking, research in which the researcher observes participants first hand in naturally occurring contexts). Both methods are part of the social science research tradition as practiced in the communication discipline and reported in communication and related-discipline journals and scholarly books. Both quantitative and qualitative methods of research are empirical; that is, both methodologies are based on or are derived from experiences with observable phenomena. This is the critical element of research. Both quantitative and qualitative methodologies can observe and describe human communication. And both can help researchers in explaining or interpreting what was observed.

The study of communication from a social science perspective uses quantitative or qualitative methods to look for patterns of messages or communication behaviors. These patterns can be based on observations or measurements across the experiences of many individuals or on the in-depth observations from one case over time. Either way, the data must be empirical; that is, the data must be able to be verified through observations or experiences.

How does the study of communication as a social science differ from humanistic and critical studies of communication? The study of communication from a rhetorical perspective often focuses on how language is used to persuade in a particular case (e.g., a specific speech by a specific person or other one-time event from which a text can be drawn or developed; a website that represents the views of a specific group of people). In addition to the rhetorical event itself, an analysis would include the historical, cultural, and social contexts surrounding it. Probably the most useful distinction is that rhetoric is planned for a specific goal for a specific audience, whereas the social science study of communication focuses on the interactive moment between and among conversational participants. A rhetorical study is more focused on one case, whereas the social science study of communication looks for patterns across people or situations.

From a critical perspective, the research emphasis is on the hidden assumptions of broad social structures that serve the interests of some people (those in power) more than others. Critical communication scholarship focuses on understanding the domination, inequality, and oppression that can occur through communication practices and structures. For example, what ideological structures in our society control or dominate the dissemination of digital technology? Some critical scholars use qualitative methods in their research, and some of these examples are included in this book. Critical communication research can also be rhetorical.

The definitional boundaries for what constitutes these three perspectives for studying communication (social science, rhetorical, critical) are blurry, and not mutually exclusive. But, broadly speaking, this text focuses on the social scientific methods for conducting communication research.

How does the study of communication differ from the study of other social sciences? Generally, the social sciences are defined as those areas of scientific exploration that focus on the study of human behavior. Psychology, sociology, and political science are other fields in the social sciences. As a social scientist, the communication scholar focuses on symbols used to construct messages, the effects of messages, and their meanings. So, as you read communication research in journal articles and books, and as you design research projects, you should ask yourself, "What characterizes scholarship as communication research?" More specifically, what communicative component (e.g., symbols, messages, or meanings) is being studied? Does the research address social problems as communication problems? Is the research based upon communication theory or contributes to the development of communication theory? How does the research position communication in relationship to our social and cultural lives? (Carbaugh & Buzzanell, 2010).

The social sciences are different from the natural sciences in that the social scientists focus on the study of human behavior. Problems that are significant for study in the social sciences involve several important variables, and untangling the effects of one variable from another is difficult. Moreover, the social sciences recognize that the researcher is a human instrument with biases and subjective interpretations that can

affect the individuals or processes under investigation. Finally, seldom can an entire system of human behavior (e.g., an entire organizational communication system) be observed. Even if it could be, human systems are always subject to new influences; thus, what is being observed is dynamic. As a result of these differences, the study of human behavior is difficult to isolate and control even if the examination is done in the laboratory setting.

One last point is that social science research is contextually and culturally bound. Research is contextualized first by the number and type of people participating and by the type of communication being investigated. Second, research is contextualized by where the investigation occurs—in the lab or in the field. Third, research is contextualized by the culture in which it occurs. Researchers and participants bring cultural norms and values to what they do and how they communicate. All these contextual and cultural factors influence the research investigation, the data produced, and the interpretation of results.

The Scientific Approach

So how do communication researchers incorporate scientific characteristics into the process of conducting research? Generally, research follows procedural traditions that have been tested, validated, confirmed, and accepted by social scientists of many disciplines over time. The research process has five general steps (Kerlinger, 1986). Figure 1.1 illustrates this process.

First, researchers start with a question that interests them. A question may arise from reading the scholarly literature or a communication issue they've seen or heard in the media. Or, a question may arise from their personal experiences or from experiences reported to them by others. In other words, some question, or curiosity, has not been explained or had been explained inadequately.

A question may also be stated as a problem. In either form, the researcher cannot continue the research process without identifying and specifying the question or problem. For example, my own curiosity about why sexual harassment continues to occur in organizations despite clear societal and organizational signals that a perpetrator faces employment, legal, and even financial consequences for sexually harassing another employee caused me to pursue this area in several research projects.

Second, the researcher uses the question or problem to formulate a **hypothesis**, or a tentative, educated guess or proposition about the relationship between two or more variables. Oftentimes, hypotheses take the form of statements such as, "If *x* occurs, then *y* will follow" or "As *x* increases, so will *y*." With respect to our sexual harassment research, we used previous scholarship to help direct our inquiry. One of our hypotheses proposed that participants who identified themselves as targets of sexual harassment would identify more verbal and nonverbal cues as harassment (Keyton & Rhodes, 1997).

If the researcher cannot formulate a tentative proposition after reviewing the existing literature, then a research question is developed. A **research question** asks what the tentative relationship among variables might be or asks about the state or nature of some communication phenomenon. For example, we used the research question "Will there be a relationship between ethical ideology and the ability to accurately distinguish between verbal and nonverbal behaviors that have been shown to be associated with flirting and sexual harassment?" (Keyton & Rhodes, 1997, p. 135). Although numerous studies had been published on both ethical ideology and sexual harassment, no study had explored the relationship between these two issues. Thus, we posed a question to help us determine if a relationship occurred. We could not propose what type of relationship would exist.

In the third step, which is often underemphasized, the researcher uses reason and experience to think through the hypotheses or research questions that are developed. A researcher might ask, "Do the research questions and hypotheses I've generated capture the essence of the problem?" or "Are there other variables that affect the relationship between the two variables I've identified?"

This step of reasoning, or thinking through, may, in fact, change the direction of the research. It may broaden the nature and scope of research, or it may more narrowly focus the researcher's inquiry. By taking this step in refining and formulating the research question or hypothesis, researchers discover the most significant issue that can be addressed given their initial questions or problems. By using the experience we gained in developing sexual harassment training for organizations and by searching the literature, we discovered that one of our proposed hypotheses ("participants who identified themselves as targets of sexual harassment would identify more verbal and nonverbal

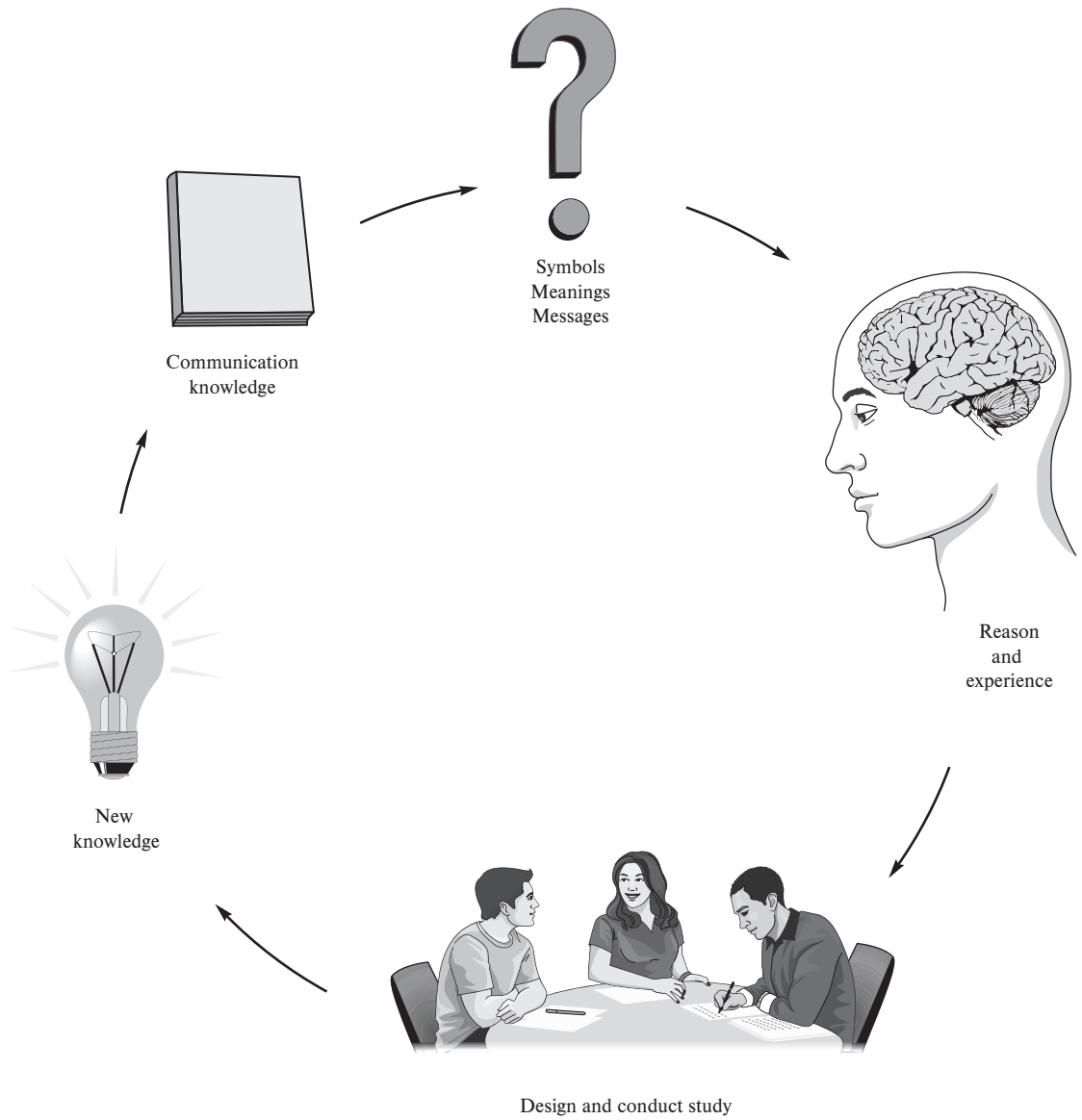

FIGURE 1.1 General Steps of the Scientific Approach

cues as harassment") would not adequately explain why some employees view behaviors as sexual harassment and others do not. In other words, an employee's perceptions of sexual harassment would not simply depend on whether she or he had been sexually harassed. As a result, we tested three other explanations.

Fourth, the researcher designs and conducts the observation, measurement, or experiment. Although each variable or element identified in the research question or hypothesis must be observed or measured, it is actually the relationship between them that is assessed. Fifth, the data are analyzed and interpreted in

reference to the question or hypothesis posed in step 2 and refined in step 3.

Thus, the social scientific approach to communication research starts with a problem, a question, or an idea as the researcher identifies a barrier or gap in knowledge. Then, the research question or hypothesis is formulated. Once developed, the research question or hypothesis is revisited and refined. Only then can the methodology be designed and carried out. The results are interpreted and fed back into our knowledge of the original problem. As a result, the problem is resolved, completely or partially, or new questions arise. Recognize that the five steps described are not necessarily discrete. One step blends into another. Work in one step may require the researcher to go back and revise what was previously completed.

Characteristics of Science

In pursuing these five steps of the research process, researchers can select from a variety of quantitative and qualitative methods. Although individual methods vary in the extent to which they encompass the following 12 characteristics, over time these characteristics have distinguished scholarly research from everyday, or informal, ways of knowing (Andersen, 1989; Bostrom, 2003; Katzer et al., 1978; Kerlinger, 1986). These characteristics are not unique to the study of communication. Rather, scientists of all disciplines have accepted them. Thus, the tradition of science rests with these 12 characteristics:

1. *Scientific research must be based on evidence.* Even experts can disagree. That is why evidence, or data, is paramount to the research process. Further, scientific research is based on the principle of empiricism. This means that careful and systematic observation must occur. What is observed and measured—the data—serves as the evidence researchers use in making their claims.

2. *Scientific research is testable.* This means that the proposition, research question, or hypothesis must be able to be probed or investigated with some qualitative or quantitative methodology. If the proposition cannot be tested or challenged in a research study, only speculations about the validity of the claim can be made.

3. *Researchers must explore all possible explanations in an effort to demonstrate that their proposition cannot be disproved.* If a proposition can be shown to be false, then, logically, it cannot be true, or valid. If the proposition and its explanation hold up over time, scientists come to accept the finding as true or real, until shown otherwise.

4. *The results of a research study are replicable, or repeatable.* Ideally, different researchers in different settings and with different participants should conduct replication studies—studies that repeat the same procedures. The results of any one study could be wrong for many reasons. Repeating the same or a very similar study many times and obtaining the same or very similar results ensures that the finding is real and can be counted on.

5. *For replication to occur, research must be part of the public record.* This is why communication scholars publish their work in academic journals and scholarly books. Scholars typically are not paid for these publications, but their work is supported through their universities and sometimes by government agencies and other funding organizations. As part of the public record, university and college libraries provide access to these journals and books, so you can scrutinize what researchers did and how they did it. Scientific study is available to other researchers and the general public. It is not private, or proprietary, research conducted for the exclusive use of those who paid for the research to be done. Because scientific research is part of the public record, scholars build onto as well as challenge each other's work. All published research includes a section describing the methods by which the data were collected and interpreted. This allows others to evaluate the methods used for potential weaknesses and to replicate the study for further validation.

6. *Because scientific research is part of the public record, it is also self-correcting.* This characteristic means that the scholars who conducted the original study as well as the scholars who replicate or challenge studies are continually improving the methods by which they observe or measure the phenomenon of interest. Improving on the methods is one way to develop a greater understanding and more detailed explanations.

7. *Scientific research relies on measurement and observation.* Researchers can measure your communication apprehension, for example, by asking you to fill out a questionnaire. Or they can observe your apprehension by counting the number of times you lose your place when you are speaking and have to refer to your notes. When something is not directly observable,

researchers develop and rely upon other methods (such as questionnaires) to capture participants' attitudes, perceptions, and beliefs.

8. *Scientific research recognizes the possibility of error and attempts to control it.* When things are measured or observed, we expect that some error will occur. For example, errors occur when a researcher does not see the participant lose her place while speaking because his attention is distracted by loud voices in another room or when a mistake is made in transferring data from the coding sheet to a spreadsheet. Errors can occur in many places in the research process. Quantitative research limits and accounts for error through the use of systematic procedures and statistics. Qualitative research accounts for error by providing detailed description to allow the reader to draw his or her own conclusions and interpretations. Most procedures have been standardized over time and across disciplines. Such formality in procedure acts as a form of control to help the researcher eliminate error, bias, and other explanations for the result found. Despite these control mechanisms, it is impossible to eliminate all bias and error in conducting research. Recognizing that bias and error can occur, researchers must take every precaution in helping to minimize it.

9. *Scientific objectivity requires the researcher to minimize personal bias and distortion.* Despite the passion for their topic and the time devoted to the project, researchers cannot be so committed to their own point of view and expectations that they fail to see other explanations when they appear. In essence, the objectivity of science distinguishes it from conclusions based solely on opinion. Too frequently, objectivity is associated only with quantitative research, and subjectivity is associated only with qualitative research. In reality, all researchers, regardless of method, must demonstrate objectivity in conducting research. Even though qualitative research is more subjective due to the greater intimacy of the researcher–participant relationship, scholars doing this type of research must be able to describe their role in the research process, and this act requires a certain amount of objectivity. Alternatively, statistics must be selected and statistical findings must be interpreted—both subjective decisions. The point here is not to quibble over the alignment of objectivity/subjectivity to quantitative/qualitative method. Rather, it is to introduce the concept of scientific objectivity as practiced by all researchers regardless of which methodology they choose.

10. *Science by its nature rests on an attitude of skepticism.* By their nature, researchers are suspicious; they do not rely on what appears to be obvious or on common sense. Within the social science research tradition, researchers rely on data compiled from quantitative and qualitative methodologies to answer their questions and support their claims. This element of skepticism is what allows, even encourages, researchers to put their assumptions through a process of testing or verification.

11. *Scientific research has an interest in the generalizability of findings, or the extension of the findings to similar situations or to similar people.* In quantitative research, findings have greater external validity if they apply to a range of cases, people, places, or times. In other words, are the results of studies that use traditional college-age students as research participants applicable to nontraditional college-age students? What about teenagers? Or retired adults? All studies have limitations, but by using discipline-accepted procedures, researchers can help strengthen the generalizability of their results. In qualitative research, findings are typically less generalizable because they are more case-specific. However, the generalizability of qualitative results can also be strengthened as a researcher spends greater lengths of time observing research participants.

12. *The final characteristic of science is its* **heuristic** *nature.* This means that research findings lead to more questions. At the conclusion of most journal articles, scholars identify new questions that surface from their findings. The ability of a finding to suggest additional questions or new methods of conducting the research is its heuristic ability. The ultimate objective of science should be to lead scientists to future discoveries and investigations.

Methodological Extremes

This introductory chapter is a good place to also introduce you to a methodological extreme that you should be aware of as you learn about research methodology (Bouma & Atkinson, 1995). A child given a hammer for the first time is likely to run around the house and hammer anything and everything. The child hammers because it is new and novel.

Unfortunately, this same phenomenon can exist when anyone is learning about research methods (see

Cappella, 1977; Janesick, 1994). With each new technique, there is the tendency to believe that this particular method can answer any question. However, think of the method as a tool and recognize that there are appropriate tools for different purposes. To expand the tool metaphor, hammers are good for pounding in nails, but screwdrivers are better for twisting in screws. The point here is that the substantive content of the research question or hypothesis drives the selection of the methodological tool (Hackman, 1992; Janesick, 2000).

Methods are useful or effective only to the degree that they help the researcher answer a specific question or explore a specific hypothesis. Methodological choices are part of the overall research plan. "A good research design is an operational plan that permits the researcher to locate precisely the data that permit the question to be answered" (Riffe et al., 2014, p. 41). So, if you let the method drive the research questions you ask or the hypotheses you test, then your results are more likely to be tied to the method you selected than to represent a valid response to the question or test of the hypothesis. No one research method can answer all questions. Although you will find that you are drawn to some methods more naturally than others, you will develop stronger analytical skills, both as a researcher and as a consumer of research, if you develop skills collecting and interpreting data from a variety of methodological techniques.

WHAT KINDS OF QUESTIONS DO COMMUNICATION SCHOLARS ASK?

Among the variety of questions that can be asked about communication are both important questions and trivial ones (Miller & Nicholson, 1976). How do researchers determine the significance of a question? There are three criteria: theoretical significance, social importance, and personal interest. The first criterion is theoretical significance. Questions that initiate the development of or contribute to the further development of communication theories are significant (Miller & Nicholson, 1976) because they deepen our understanding and explanation of communication behavior. When these questions are posed and answered by research, we gain new knowledge.

Because communication is a social activity, significant questions are those that have a general social importance (Miller & Nicholson, 1976). For example, questions that satisfy this second criterion might be, "What media campaigns would decrease the likelihood that teens try drugs and alcohol?" or "What negotiation strategies work best in resolving intercultural differences in international negotiations?" Finding the answers to questions like these could have a powerful impact on many lives. Questions that drive research do not have to relate to all members of society. But we should ask who would be affected by the answer. If enough people are affected by or could use the answer to the question, then the question has social importance.

The third criterion focuses on which interests or perplexes the researcher (Miller & Nicholson, 1976). Questions that interest me include the following: (1) How do children learn to communicate in groups? (2) Why do some employees persist in sexually harassing other employees given the individual, relational, professional, financial, and legal consequences that are likely to result? (3) To what extent does the relational development among group members affect the task effectiveness of a group? Some of the studies my colleagues and I have conducted in these areas are used as examples in this book.

What questions interest you? They may be questions you have considered in another course or questions that arise from your experiences with others. Your interests may be idiosyncratic, not coinciding with the interests of others. This demonstrates why the first and second criteria of theoretical significance and social importance are valuable and necessary. Keeping these three criteria in mind can help us respond to the "so what?" question. Many times, people read research reports and have difficulty finding any significance or utility for the findings. If your research project has societal significance and is driven by personal interest—and if these issues are described in the research report—then the "so what?" has been answered.

The Nature of the Questions

As you read the communication research literature, you will notice several types of questions (Stacks & Salwen, 2009). The first type, **questions of definition**, provides definitions for phenomena in which we are interested. Whereas you may believe that all definitional issues have been addressed, remember that new communication situations and environments and changing

societal values create new areas to explore and define. As a question of definition, Keyton et al. (2013) asked adults which communication skills they observe or hear in their workplace. In a subsequent study, working adults evaluated how effective they were at using the skills identified in study 1. Interestingly, what the first group of participants identified as the most frequently used communication skills were ones that participants in the second study admitted were not their most effective. These studies addressed definitional questions in that they were designed to, first, identify from an employee's perspective what communication skills are more frequently used and, second, to evaluate how effective employees believed they were in using these skills. Questions of definition, or *what* questions, move the phenomena from the abstract realm into the specific. Rather than guessing which communication skills employees use frequently and how effective they are in using these skills, the research team used online survey methods to answer the question, "What verbal workplace communication behaviors are routinely performed at work?" (p. 156).

After the *what* has been adequately defined, researchers generally turn to questions of relationships or questions of cause and effect. **Questions of relationships** examine if, how, and the degree to which phenomena are related. For example, adults with experience in online dating sites participated in a survey study so that the researchers could discover what information in an online profile influences social attraction. The research question was "How are different levels of selective self-presentation related to social attraction in online dating sites?" As the researchers explained, people engage in selective self-presentation (or the presentation of positive information) to elicit attraction from others. However, when other daters examine such positive profiles, they might interpret too much positive information as misrepresentation or boasting. The researchers manipulated three sections common to most online data profiles: the online dater's self-summary, description of what the online dater is doing with his/her life, and description of what the online dater excels at doing (Wotipka & High, 2016). Results of the study indicated that profiles with lower levels of selective self-presentation are evaluated as having higher levels of social attraction.

By understanding how variables are related, we have a greater understanding of our world and the role of communication behavior in it. Most important, questions of variable relations help the community of communication scholars build and develop theory.

Questions of cause and effect ask and answer if one or more variables is the cause of one or more outcome variables. These types of questions explore *why* one aspect of communication is connected to another. As an example, one research team (Paek et al., 2012) predicted that exposure to a nationwide multimedia campaign directed toward children ages 9 to 13 would influence their attitudes toward physical activity. Children who saw the campaign

> "were more prone" to perceive that they can control their behavior of doing physical activity, that their family and parents think they should engage in physical activity, that their peers consider physical activity to be important and fun, and that physical activity is prevalent among their peers. Also, teens who reported greater exposure to the VERB campaign were more likely to form a favorable attitude toward physical activity. (p. 877)

Thus, the researchers predicted, or demonstrated, that messages in the campaign had positive effects on children's beliefs about physical activity.

Questions of value ask for individuals' subjective evaluations of issues and phenomena. Questions of value examine the aesthetic or normative features of communication, asking, for example, how good, right, or appropriate a communication phenomenon or practice is. Questions of value are inherent in a study that explores how everyday discourse stigmatizes teenagers who are homeless. Harter et al. (2005) interviewed homeless teens, educators, and social service providers. These teens, often called the hidden homeless, try to disguise the fact that they are homeless when talking with others to avoid being stigmatized or labeled. Other interviews revealed that community members are generally unaware of this homeless population and the difficulties the teens encounter trying to continue their education. This study raises the question of how this type of public discourse inhibits conversations that could bring awareness to the problem and help the teens and their families.

Finally, there are **questions of policy**. Communication researchers seldom test policy issues directly, but the results of research studies are often used to recommend a course of action. Roberto et al. (2008) tested a 7-week intervention program designed to prevent pregnancy, STDs, and HIV in adolescents.

TRY THIS!

Evaluating Communication Questions

For each of the questions listed, evaluate your personal interest in the question and the question's social importance. Use the table to capture your evaluations. Rate your personal interest on a scale of 1 to 5, with 1 being "little or no personal interest" and 5 being "high personal interest." Rate social importance on a scale of 1 to 5, with 1 being "little or no social importance" and 5 being "high social importance."

Preliminary Research Question	*Personal Interest*	*Social Importance*
How do adolescents search for health information online? (From Wartella, Rideout, Montague, Beaudoin-Ryan, & Lauricella, 2016)		
What health claims are presented in the tweets [about vaping related illnesses]? (From Damiano & Allen Catellier, 2021)		
What kind of communication strategies do immigrant women entrepreneurs use to negotiate their identities as they interact with others? (From Haseki et al., 2021)		
How will the race of the spokesmen, performance history, and crisis type influence perceived credibility of the spokesmen? (From Ha & Ferguson, 2015)		
Does leader-member exchange status (i.e., in-group vs. out-group) explain employees' communication-mode choices (i.e., e-mail vs. face-to-face) in organizational dissent? (From Turnage & Goodboy, 2016)		
How do college and university student journalists perceive the coverage of women's sports in student newspapers? (From Schmidt, 2015)		

Compare your evaluations with those of other students. How are your evaluations similar or different? What other questions about communication do you believe merit researchers attention?

The intervention included six computer-based activities. Over 300 10th graders at two high schools participated in the study. Students at one high school completed the intervention activities; students at the other high school served as the control group and did not participate in the intervention activities. Students who participated in the intervention program outperformed students in the control group on disease knowledge, condom effectiveness, how to negotiate condom use, and attitudes toward waiting to have sex. The study demonstrated that modest computer-based interventions could be effective. Because this type of intervention can be used to reach a large number of teens, the findings have policy implications for agencies considering how to allocate funds for these types of health-related programs.

As you can see, communication research varies widely in its subject matter. Some research has implications for the development of communication theory, some has more practical application, and some contributes to both theory and practice. But all research starts with a basic question about communication that

needs an answer, and all research uses some form of scientific and systematic research methodology in providing those answers.

SUMMARY

1. Research is asking questions and finding answers.
2. Scholarly research is the discovery of answers to questions through the application of scientific and systematic procedures.
3. Academic research follows accepted norms and procedures that have been adopted by scholars from many disciplines.
4. In the process of scientific discovery and explanation, four outcomes are sought: describing behavior, determining causes of behavior, predicting behavior, and explaining behavior.
5. The best research is that which is driven by theory, validates a theory, further explains a theory, challenges an existing theory, or aids in the creation of theory.
6. As a social science, communication researchers use both quantitative and qualitative methods.
7. The study of communication from a social science perspective looks for patterns across cases and focuses on symbols used to construct messages, messages, the effects of messages, and their meanings.
8. Communication scholars start with an interesting question and then formulate a formal research question or hypothesis.
9. A hypothesis is a tentative, educated guess or proposition about the relationship between two or more variables.
10. A formal research question asks what the tentative relationship among variables might be, or asks about the state or nature of some communication phenomenon.
11. Research is judged to be scientific by 12 characteristics: its empirical nature, its ability to be tested, the extent to which it can be falsified or disproved, the ability to replicate or repeat findings, the public nature of findings, its self-correcting nature, the ability to measure or observe the phenomenon of interest, the ability to minimize error through the control of procedures, its level of objectivity, the skepticism it raises, the generalizability of findings, and its heuristic nature.
12. Questions suitable for communication research are those with theoretical significance, of social importance, and in which the researcher has personal interest.
13. Questions suitable for communication research may be questions of fact, questions of variable relations, questions of value, or questions of policy.

KEY TERMS

empirical
heuristic
hypothesis
proprietary research
qualitative methods
quantitative methods
questions of cause and effect
questions of definition
questions of policy
questions of value
questions of relationships
research
research question
social science research
theory

For a chapter PowerPoint presentation and appendices, visit www.mhhe.com/keyton6e

For a list of Internet resources and a practice quiz for this chapter, visit www.joannkeyton.com/research-methods

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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 events that allow them to be classified and then

TABLE 2.1 Theory Development—Steps 1 Through 4

	Task	*Example*
Step 1	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.
Step 2	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.
Step 3	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.
Step 4	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

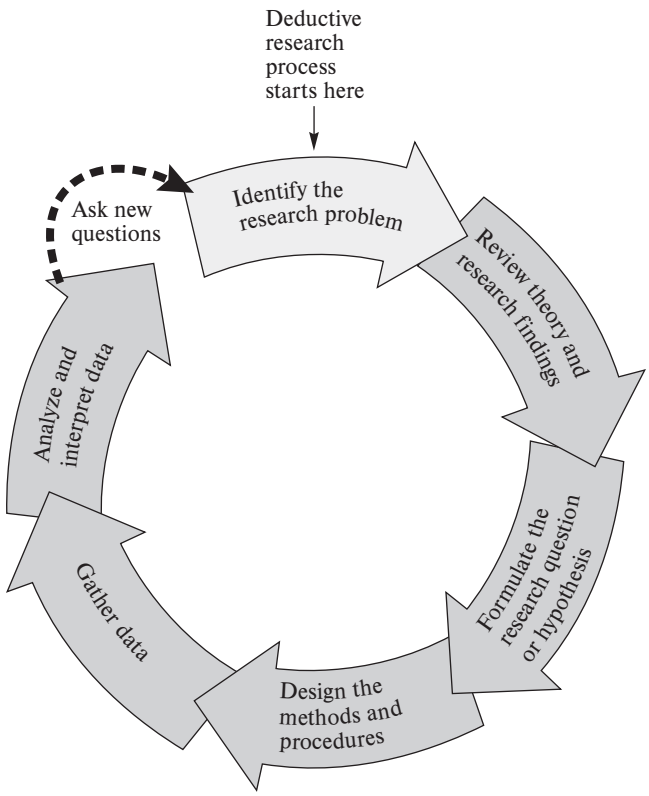

FIGURE 2.1 The Deductive Research Model

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

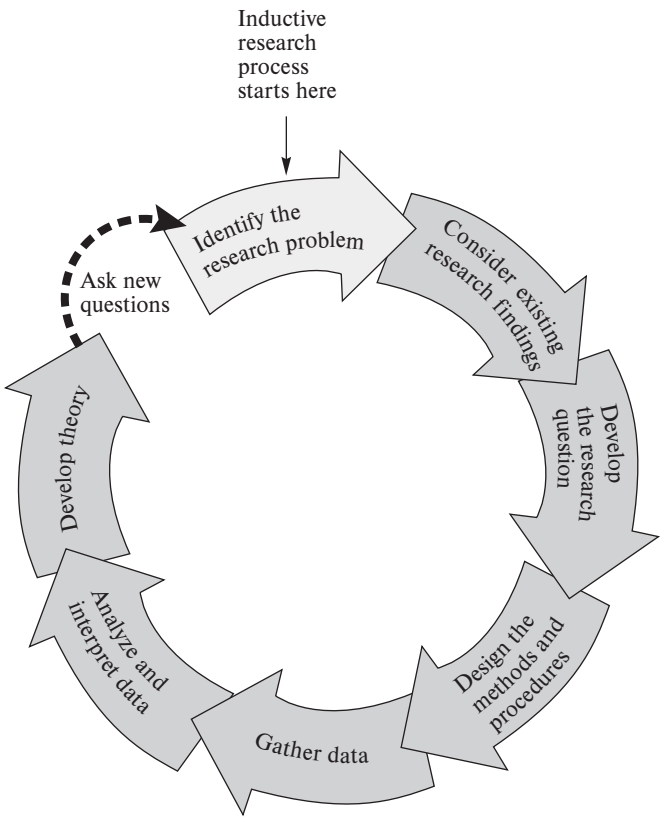

FIGURE 2.2 The Inductive Research Model

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.

Topic	*State as Preliminary Question(s)*	*Examine Question(s) for Assumptions*	*Restate Preliminary Question(s)*
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:

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

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