Research in Recreation, Parks, Sport, and Tourism

Second Edition

Carol Cutler Riddick
Ruth V. Russell
To Dr. Betty van der Smissen—our first research methods teacher. Betty’s commitment and enthusiastic teaching style inspired us to believe objective inquiry is fascinating to study and critically important for our profession. Thank you, Dr. van der Smissen, for this as well as all the years of support and interest you have shown in our careers.
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This is a second edition of the text originally entitled Evaluative Research in Recreation, Park, and Sport Settings: Searching for Useful Information. Feedback received from students, instructors, and practitioners guided us during the revision process.

Target Audience

The target audience for this book is upper-level undergraduates and graduate students, as well as professionals working in the field of recreation, parks, tourism, or sports. This text was written for individuals who have had little or no prior involvement in research undertakings.

There are two purposes for the book. The first objective is to acquaint and teach you to use the basic practices and techniques required to carry out or monitor a small-scale research investigation. The second aim is to teach you the questions to ask when critiquing a proposed or reported research investigation.

Content Changes Introduced in the Second Edition

In this edition, coverage was expanded to include not only how to plan for an evaluative research investigation, but also how to complete basic research projects. In an effort to make the subject matter clearer, the content was reorganized and a step-by-step format was adopted.

This revision contains the following new chapters entitled:

- Overview.
- Decide on a Topic.
- Identify Theoretical Underpinnings.
- Explain Study’s Significance.
- Consider Measurement.
- Seek Proposal Approval.
- Conduct a Pilot Test.
- Prepare for Data Collection.
- Present Results Using Visual Aids.

Other topics that have been added or expanded include:

- Measuring program effectiveness (Step 1).
- Writing a literature review (Step 2).
- Quantitative, qualitative, and mixed-methods designs (Step 7).
- Funding sources for research (Step 11).
• Preparing a written report (Step 16).
• Delivering an oral report (Step 17).

Organization of the Book

The book is divided into five major units. The first part, Overview, reviews: definitions, rationale, and categories of research and introduces the stages and steps involved in the research process. The second section, Getting Started, covers: deciding on a topic, reviewing the literature, identifying theoretical underpinnings, developing a scope of study, and explaining a study’s significance. The third segment, Developing a Plan, contains: selecting a sample, choosing a design, considering measurement, specifying data-collection instruments, addressing ethical responsibilities, and seeking proposal approval. The fourth unit, Implementing the Plan, reviews: conducting the pilot study, preparing for data collection, and analyzing quantitative and qualitative data. Finally, the fifth section, Reporting the Research, includes information on: presenting results using visual aids, preparing a written report, and delivering an oral report on the research.

New Learning Features Introduced in the Second Edition

The writing and presentation styles have been dramatically altered in the new edition. Each chapter now leads off with an orientation outline and relevant quote. Furthermore, as a trigger device, important words and concepts are bolded and italicized.

Six new “features” have also been added:

• Case illustrates a point by citing research or a real-world example.
• Something to Remember underscores an important point.
• Idea provides straightforward, practical, “how to” advice.
• Your Research presents an opportunity for applying chapter materials to planning your own research project.
• Review and Discussion Questions assist in determining mastery of chapter content.
• Exercises contain activities (including Web-based assignments) that complement and expand upon chapter material. (NOTE: Every effort was made to cite Web sites that were operational when this edition went to publication. Nevertheless, it may be that one or more of the cited URLs will change or cease to operate.)

Supplemental Resource

The Instructor’s Manual, accompanying this text, has also been revised. The Manual contains, for each chapter, a PowerPoint® presentation and exam questions. For information on how to acquire this supplement, contact Sagamore Publishing Inc. at www.sagamore.com or phone toll free 800.327.5557.
Feedback

As with the first edition of this book, we’d be interested in receiving comments and suggestions from students and instructors. We’re already on the lookout for new material and changes to incorporate into the next edition! Our contact information is:

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Joint thanks are extended to three people who stuck by us as we wrote this second edition. First, the patience that our publisher Dr. Joe Bannon demonstrated as we chiseled away on the revision, is greatly appreciated. Dr. Anne Simonsen was gracious enough to review and provide extensive comments on many of the chapters drafted for the book. Finally, Jodie Ackerman was absolutely invaluable in making the revision a reality. Jodie spent many, many hours—always with a smile on her face (even as we worked very late into the night)—creating graphics and tables, entering corrections, finding and checking references, etc. We are indebted to you, Jodie.

We also want to let the world know how much we value each other and our friendship. We met in 1972 during our first semester in the recreation and park graduate program at the Pennsylvania State University. Among our many gifts to each other then and still today is the ability to participate in engaging conversations when we don’t see eye to eye. We began with an ongoing conversation across the desk partition in the graduate student “bullpen” about the meaning of leisure, and are still at it.

Carol acknowledges the love and support of her family and friends. My sons, Blake and Ryan, are the joys of my life. To all of you, now I finally can come out to play more often than I have during the past three years! Carol also extends appreciation to Dr. Ron Dreher, Chair of the Department of Physical Education and Recreation at Gallaudet University. Brother Ron, on more than one occasion told me to go home, take a break, and enjoy my family. Finally, the undergraduate and graduate student recreation majors at Gallaudet have made me a better teacher. They have taught me a lot about the importance of expressing oneself clearly and the value of visual aids. Long live Gallaudet University and the beautiful and unique Deaf cultures found around the world.

Ruth also extends appreciation to those who have both directly and indirectly supported her enterprise on this book. I owe special thanks to Patricia D. Setser, who has been supportive beyond what is reasonable and fair, and to Dad, whose constant refrain of “Haven’t you finished that book yet?" kept me going. And, to other family and friends whose confidence in me I appreciate so very much. I also owe a debt to my faculty colleagues and undergraduate and graduate students in the Department of Recreation, Park, and Tourism Studies at Indiana University, Bloomington for challenging and trusting me. In particular, I thank the five semesters of undergraduate students who enrolled in my research methods course and with the directness of curious learners set me straight many times on what worked and what didn’t work in our first edition of the book.

Carol Cutler Riddick
Ruth V. Russell
April 2007
Part I: Overview

What is Research?

Characteristics of Research Investigations

Why Conduct Research?

Categorizing Research
Applicability
  Basic Research
  Evaluative Research
Goal
  Descriptive Research
  Explanatory Research
  Predictive Research
Data Source
  Primary Source
  Secondary Source

The Research Process
I now want to know all things under the sun, and the moon, too. For all things are beautiful in themselves, and become more beautiful when known to man. Knowledge is life with wings.

Kahil Gibran

We’re bombarded with research on a daily basis. The back of a cereal box proclaims that if, in place of regular meals, you eat two bowls of this cereal a day you will lose six pounds in two weeks. The manufacturer claims it is “proven” because the company’s nutrition team has “. . . worked closely with researchers at a leading university to thoroughly test the . . . diet” (Kellogg, 2003). Yet, even after two cups of coffee, you can’t find the details of how the research was conducted! What, for example, were the daily physical energy expenditures of the individuals involved in the study?

And how about all the studies conducted at universities, hospitals, and other “think tank” settings? The Rand Corporation, for instance, released a report stating that urban sprawl is statistically related to harming physical health (Stein, 2004). After analyzing data on more than 8,600 Americans in 38 metropolitan areas, it was reported that rates of asthma, headaches, and other physical complaints increased with urban sprawl. The researchers noted, “This study provides some initial support to the hotly debated claim that suburban sprawl is bad for health” (Milloy, 2004). Is sprawl, per se, the cause of these physical ailments, or could it be that the pollution found in these communities contributed to ill health?

The bottom line is that we encounter, in both our personal and professional lives, all sorts of claims and assertions arising from research. The fundamental challenge is being able to discern “good” science from “junk science.” Hopefully, by the time you conclude reading this text, you’ll be able to read about and conduct your own research with a discerning eye and mind.

What is Research?

Research has been defined two ways.

• One perspective is that research is a “. . . process of collecting, analyzing, and interpreting information” (Leedy & Ormrod, 2005, p. 2).
• A second viewpoint is that research is to “. . . advance human knowledge . . . The aim is discovery” (Elias & Dunning, 1986, p. 20).

We embrace both viewpoints. Research encompasses how we know what we know. Simply put, research involves following a process or processes to gain more knowledge about a specific topic.

Characteristics of Research Investigations

Misconceptions abound about research. It is, for instance, more than going to the library and looking up references, although this action is an element in the research process. Likewise,
research goes beyond simply asking people to answer questions, even though we often survey people as part of a study.

Research is conducted following the ways of thinking to which scientific inquiry adheres. Scientific inquiry has the following characteristics (Lastrucci, 1963). It is:

• **Logical.** One component of being logical is that the study idea as well as the way the study is executed, makes sense. Logic should also prevail when making conclusions based on study findings.

• **Objective.** Empirical data or information are collected by using formal observation or measurement. Not being objective is being subjective or using divine or spiritual revelation, intuition or personal opinion as the basis for “knowledge.”

• **Systematic.** One aspect of being systematic is that the study is executed in an orderly, non-prejudiced fashion, so that valid or accurate information is recorded. Another side to being systematic is that extensive documentation is provided so that others can replicate or repeat the study.

When one or more of these characteristics have been violated, the resulting product is pseudoscience or junk science (Case 1). The by-products of these sorts of ill-conceived endeavors are findings and conclusions that lack integrity and are therefore meaningless.

**Case 1. An Ill-Conceived Thesis Idea Illustrating Violations of Scientific Inquiry.**

Denise, a master’s candidate, initially proposed developing a “leisure education” program for adults who were developmentally disabled and mentally ill and who were living in a group home. Proposed session topics included: setting up a personal fish aquarium, planting a potted plant, sewing a teddy bear, walking with two-pound weights, participating in floor aerobics instruction, and learning how to hip-hop dance. Each topic would be the focus of three, one-hour meetings held over the course of one week.

Denise “just knew” that such a program would make a difference in the lives of participants! Her thesis advisor wanted Denise to come up with a game plan that would enable her to be more objective in reaching conclusions about the merits of the program. Specifically, Denise was asked to identify a way to document some benefits that she anticipated would accrue from program participation.

After thinking about it, Denise anticipated that the leisure education program would enhance participants’ social skills. So she proposed that each participant would be asked to recall, a day or two after participating in a session or whenever they could be “caught” awake and not busy, the number and kinds of social interactions they had with other participants during the activity session.

Denise’s thesis Chair had several other concerns with the proposal. First, she questioned if it was logical to reason that the selected non-cooperative activities would promote social interaction. For instance, would adults participating in the walking program, swinging two-pound weights, really feel like chatting with each other?
Another issue was the unsystematic way data would be collected. Realistically, would participants be able to accurately recall, a day or two later, the frequency of certain social behaviors during a session?

In contrast, when research has been logically, objectively, and systematically planned and implemented, it is referred to as scientific research. For word economy reasons, in this book “research” is used interchangeably with “scientific research.”

Something to Remember!

When designing or reading a research study, ask yourself if the study:

- Is logically conceived?
- Provides detailed and precise information on what was studied and how?
- Is based on objective and systematically collected data?
- Contains conclusions that are reasonable considering what was examined and how the study was executed?

Why Conduct Research?

What is the catalyst for research? While any number of reasons can precipitate research, there are three major forces behind research:

- **Organization motivation.** Recreation, park, tourism, and sport organizations continually seek to assess program effectiveness, as well as determine ways to improve service delivery, operations, procedures, or policy (Case 2). Agencies also conduct research in order to justify expenditures.

- **Academic motivation.** Students are called upon to complete a research paper as part of an undergraduate or graduate degree requirement. Professors are driven to engage in research because of the need to: “publish or perish,” attain grant support, and/or understand or improve the social world in which they live.

- **Personal motivation.** Sometimes individuals get involved in a research topic because of their personal experiences or "personal troubles" (Mills, 1959). For example, being a kayaking enthusiast could inspire one to conduct research on the impacts of flood control projects on the sport.

Case 2. A Recreation Organization’s Need for Research.


The purpose of this study, commissioned by the Arizona State Parks Department, was to determine and consider the attitudes of three types of trail users for better planning and managing of state trails. Phone and mail surveys were used to identify 1,216 motorized, mixed, and non-motorized trail users.
The findings showed that there was support for multiple-use trails but only when motorized and non-motorized activities were separated. Each group differed in the issues they deemed most important. Over one-half of the motorized and mixed groups identified the two pressing issues as being, “Lack of trail ethics practiced by other trail users,” and “Too much litter and trash along the trail.” In contrast, the top issues for a majority of the non-motorized group were, “Lack of funding for trails,” “Lack of trails close to home,” and “Lack of directional signs along trails.” Regarding management actions, all three groups felt efforts should be directed at maintaining existing trails and keeping trail areas clean of litter and trash. It was concluded that the results of the study supported a maintenance policy rather than a purchase or growth policy.
Categorizing Research

Research investigations can be characterized or classified any number of ways. Hearing people talk about research or when reading research reports, you inevitably encounter terminology that can be quite confusing. For simplicity sake, research studies can be classified three ways or by applicability, goal, and data sources (Figure 1).

Figure 1. Categories of Research.

<table>
<thead>
<tr>
<th>Applicability</th>
<th>Goal</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic</td>
<td>Descriptive</td>
<td>Primary</td>
</tr>
<tr>
<td>Evaluative</td>
<td>Explanatory</td>
<td>Secondary</td>
</tr>
</tbody>
</table>

Applicability

One way to categorize research is to think of its application usefulness. Are you intrigued, just for the sake of learning, about some aspect of the world around you? Or, are you interested in trying to find answers to practical sorts of things? These two orientations to scientific inquiry are respectively labeled as basic research and evaluative research.

Some ways basic and evaluative research can be distinguished, in terms of contexts and research methodology, are found in Figure 2. Student and university faculty research, for example, runs the gambit between evaluative research and basic research. Practitioners, by and large, are interested in evaluative research endeavors.

Figure 2. Typical Characteristics of Basic versus Evaluative Research.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Basic Research</th>
<th>Evaluative Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit of Analysis</td>
<td>Group, usually college students (in a course or on an athletic team)</td>
<td>Group or individuals in community or clinical settings</td>
</tr>
<tr>
<td>Research Design</td>
<td>Quantitative designs (especially experimental designs, quasi-experimental designs, or non-experimental designs), qualitative designs (or case study, critical theory, ethnography, grounded theory, narrative, and phenomenology), or mixed-methods design</td>
<td>Quantitative designs (especially pre-experimental designs, single-subject designs, and survey research), qualitative designs (or case study, critical theory, ethnography, grounded theory, narrative, and phenomenology), or mixed-methods design</td>
</tr>
</tbody>
</table>
**Basic research**. Basic research seeks to understand phenomena or behavior at an abstract or theoretical level, “acquiring knowledge for knowledge sake.” Basic research arises from intellectual curiosity and is more esoteric; meaning it typically has little or no immediate practical application. Nevertheless, this does not mean basic research is less worthwhile than evaluative research.

Basic research can expand our knowledge base by providing some fundamental understanding about a topic of interest. “Quality basic research is the lifeblood of any scientific discipline. Without it, disciplines would stagnate, failing to advance past their current limits of understanding” (Wann, 1997, p. 17).

Sometimes basic research findings ultimately do have practical usefulness (Case 3). An example of how a basic research discovery led to numerous everyday applications was a discovery made by Dr. Roy Plunkett, when he was experimenting with chemical reactions to refrigerant gases. A stuck cylinder valve produced a waxy solid mass with a very high melting point. Eventually, this glob was named Teflon™. Through the years many applications for Teflon™ have been found, including its use in cookware coating, soil and stain repellant for fabrics and textile products, wire coating, and pharmaceutical production (Inventor of the Week, 2000).

**Case 3. Using Basic Research to Guide Practical Applications.**


Using past golfing experiences and behaviors, distinct segments of golfers were identified from 1,397 golfers randomly selected from six golf courses. Golfers differed on their motivations and constraints to play golf.

The authors speculated how findings from this basic research inquiry could be extended or applied to golf course operations. For instance, it was noted that:

1. “Loyal infrequents” considered lack of time to play to be a large barrier. Thus, marketing strategies could be directed at promoting weekend and after-work play.
2. “Locals” were motivated to play for leisure reasons. Consequently, advertising to this group might be directed at stress relaxation and “get away” messages.
3. “Visitors” were less constrained by lack of time to play. It was speculated that one way to attract this group to a course would be to offer special rates for tee times that generally go unfilled.
Evaluative research. *Evaluative research*, sometimes referred to as program evaluation, focuses on assessing or appraising a program or social intervention. Any number of angles may be explored in evaluative research including: determining if there is a need for the program; examining program design; monitoring program operations; assessing program impacts; and assessing program economics (Step 1 and see Figure 3). For instance, one evaluative research study has examined how levels of participation in an after-school academic and recreation program (i.e., non-participant or participant) affected school absences, tardiness, and grades (Baker & Witt, 1996b).

**Figure 3. Additional Articles Illustrating Different Kinds of Applicability.**

<table>
<thead>
<tr>
<th>Applicability</th>
<th>Published Examples</th>
</tr>
</thead>
</table>

Basic research and evaluative research “inform each other” (Lewin as cited in Stangor, 2006, p. 12). Evaluative research can trigger topic ideas for basic research, and basic research can disclose ways to solve specific problems.
### Idea . . . Getting Started.

Whether you're embarking on research as a practitioner or student, consider identifying a faculty member at a local college or university who is interested in assisting you. Such a partnership can be a “win-win” situation. You want to identify someone to serve as your mentor or teacher, someone whose personality and work habits are compatible with your own style. Some of the factors to consider when identifying a mentor are:

1. **Availability.** Does he or she maintain weekly office hours and routinely check email messages? Will he or she be taking a *sabbatical* (a paid leave of absence to conduct an approved research project) during the time of your study? In general, do you anticipate having reasonable access to your mentor?

2. **Enthusiasm.** Is he or she open to working with research apprentices in general and with you in particular?

3. **Constructive criticism manner.** Is his or her feedback understandable? Is his or her delivery style agreeable with you?

4. **Comfort level.** Do you feel you can confide in the person regarding your concerns about your research project?

### Goal

A second way to categorize research is according to its goal. There are three goals of scientific research. Research can be undertaken in order to attain: a description, an explanation, or a prediction. There are advantages and disadvantages associated with each of these kinds of research (Figure 4).

#### Figure 4. Comparison of Three Research Goals.

<table>
<thead>
<tr>
<th>Research Goal</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Descriptive</td>
<td>Provides a snapshot of “what, where, and when” something is occurring.</td>
<td>Does not examine relationships or linkages between or among phenomena.</td>
</tr>
<tr>
<td>Explanatory</td>
<td>Helps understand “why,” by examining relationships between or among phenomena.</td>
<td>Should not be used to infer a causal relationship.</td>
</tr>
<tr>
<td>Predictive</td>
<td>Estimates future events or behaviors or provides estimates of population values.</td>
<td>Cannot consider all the important phenomena that affect events or behaviors.</td>
</tr>
</tbody>
</table>

*Descriptive research.* **Descriptive research** focuses on the “what, where, and when.” In other words, phenomena about a sample or population are described (Case 4).
**Case 4. Descriptive Research.**


The study explored participation in a college-based outdoor program. Fourteen program participants were asked to photograph their outdoor trips and were also interviewed. Inductive thematic analysis was conducted on the photographs as well as interview transcripts. Participants’ experiences with the outdoors broke down into one of three themes: spiritual connection, connection with others, and self-discovery.

**Explanatory research.** *Explanatory research* examines why something happens. Relationships or linkages between or among social phenomena are examined. These linkages are determined by correlating how phenomena relate to each other or are derived from results stemming from experimentation (Case 5).

**Case 5. Explanatory Research.**


The study investigated how various stadium factors affected spectators’ desire to stay at the stadium and their intentions to return to the stadium. A systematic random sampling method was used to distribute questionnaires before the end of the first quarter of college football games played at five different Southeastern Conference stadiums. Of 3,400 surveys distributed, 1,491 (43.9%) were returned.

Statistical analyses revealed that spectators desiring to stay at a game were more likely to: hold strong team loyalty feelings, have positive experiences surrounding the stadium (parking, cleanliness, and food), perceive crowding not to be a problem at the stadium, and feel fan behavior to be acceptable. Intention to return to the stadium was found to be linked to team loyalty as well as desire to stay at the stadium.

It was concluded that stadium administrators should make every effort to ensure spectators’ experiences are positive ones so the spectators will return. In particular, the researchers maintain that special attention should be paid to enhancing stadium design and stadium services.

**Predictive research.** *Predictive research* deals with two perspectives. First, it can focus on how specific factors affect future behavior or events (Case 6). Second, predictive research is undertaken to provide estimates of population values. Figure 5 provides additional references for articles illustrating varying research goals.
Case 6. Predictive Research Focused on a Future Behavior.


The purpose of the study was to examine the relationship between motivational factors that led people to apply for a camp counselor position and their ensuing job performance. The theory of personal investment guided the investigation.

Ninety-eight camp counselors working at two residential summer camps serving children from low-income families were surveyed. The Reasons for Working at Camp Inventory was used to identify six motivational factors. Staff assessed job performance, in six areas, by using the Job Performance Evaluation instrument.

Ethical interest motives, practical skills and experience motives, as well as gender, emerged as predicting camp counselor job performance. Recommendations were made regarding ways to structure selection interviews so the motives of interviewees could be determined by camp administrators.

Figure 5. Additional Articles Illustrating Different Research Goals.

<table>
<thead>
<tr>
<th>Goal</th>
<th>Published Examples</th>
</tr>
</thead>
</table>
### Goal | Published Examples
--- | ---


### Data Source

A third way of categorizing research is to identify the source of *data* or information used to conduct the study. Data come from either a primary source or from a secondary source.
Primary source. If you collect your own data, then you have generated your own primary data source. An example of a study that used primary data was one reported by Glancy (1987). Dr. Glancy joined a women’s recreational softball team as a participant observer. Through the season, she recorded personal observations of how softball performance affected social relations and cooperation.

Secondary source. Data that have been collected by one person and are used by another person is known as a secondary data source. In other words, some other entity (individual, organization, agency, etc.) collected the information. When these data are used by another researcher, it is thought of as being passed along to a “second set of hands.” For instance, one study reported using data originally collected and archived by the state of West Virginia in order to examine if increased recreation opportunities led to increased rates of physical activity and decreased health care expenditures and rates of obesity (Rosenberg, Sneh, Phipps, & Gurvitch, 2005).

Idea . . . Existing Secondary Data Sources.

A number of secondary data sources exist. While the purposes of these surveys vary along with content, some may contain data related to leisure time, recreation behaviors, and similar topics.

At least one excellent reference exists in online resources for social surveys conducted in Europe and other countries. For more information, consult Social Research Updates published by the Department of Sociology at the University of Surrey (www.soc.surrey.ac.uk).

Additionally, the University of Michigan’s Inter-University Consortium for Political and Social Research has become a repository for over 9,000 secondary data sources from over 325 colleges in North American and 130 institutions worldwide. Researchers and students can purchase these computerized data sets. For more information go to http://www.icpsr.umich.edu or phone 734.998.9799.

The Research Process

How you go about planning and executing a research study is vitally important to its success. The research process is a structured and planned approach to discovering knowledge. If there is a dramatic deviation from this process, the integrity of the study will be questioned.

Idea . . . Online Writing Resources.

A critical ingredient to “good” research is that its proposal and final report are well written. Prior to submitting a proposal or distributing a final report, you will go through many drafts. Content is obviously important, but so is “good” writing.

To help you assess and improve your writing skills, consider using the “Online Writing Lab” or OWL (its acronym) at Purdue University, http://owl.english.purdue.edu. Click on “The Original OWL Can Be Found Here,” and under “Purdue’s OWL” click on: “English as a Second Language (ESL) Resources, Handouts, and Exercises” and “Grammar, Punctuation and Spelling (you might want to see how well you do in the “Practice Exercises” section).
Overview

Basically, the research process has four stages:

1. **Getting Started.** The initial stage of research consists of deciding on a topic. After that, a literature review is conducted, a theoretical approach is identified, and a scope of study is developed. The last step, in this stage, is making a case for the study’s significance.
2. **Developing a Plan.** The second phase entails spelling out the methods or how you plan to conduct the study. This is the juncture where you identify a sampling plan, the design, instrumentation, and data-collection approaches that will be used. You also need to address ethical responsibilities and seek approval of your proposal during this stage.
3. **Implementing the Study.** The implementation phase includes conducting a pilot test and making the necessary adjustments before initiating the full-fledged study. At this stage, attention is also given to logistical concerns related to data collection and data analysis.
4. **Reporting the Research.** The final stage includes presenting visually attractive results and sharing information about the study, in written and oral formats, with diverse audiences.

The four stages of research, in turn, can be broken down into 17 steps (Figure 6). Each of these steps is featured as a separate chapter in this book.

**Figure 6. Stages and Steps to Scientific Research.**

<table>
<thead>
<tr>
<th>Getting Started</th>
<th>Developing a Plan</th>
<th>Implementing the Study</th>
<th>Reporting the Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1: Decide on a topic</td>
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<td>Step 10: Address ethical responsibilities</td>
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<td>Step 11: Seek proposal approval</td>
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**Your Research**

1. Are you drawn to undertaking a basic or evaluative research project? Why?
2. Do you envision getting involved with a descriptive, explanatory, or a predictive research investigation? Why?
3. Do you anticipate using a primary data source or a secondary data source? Why?
4. If you plan on using a secondary data source, what ideas do you have for locating it?
Review and Discussion Questions . . . What have you learned in this introductory chapter?

1. What are the two ways research can be defined?
2. What are three characteristics of scientific inquiry?
3. What is the difference between basic research and evaluative research?
4. Any one of three goals can be behind a research investigation. Name and define these goals.
5. What does it mean when you read that someone has used a primary data source? A secondary data source?
6. What are the four stages in the research process? Describe the multiple steps within each stage.

Exercises

1. Read three abstracts (initial summary) of articles in a recent issue (assigned by your instructor or chosen by you) of one of the major professional journals in recreation, parks, tourism or sport. Using only the information provided in the abstract, how would you classify the research?
   A. Is it basic research or evaluative research?
   B. Is it descriptive research, explanatory research, or predictive research?
   C. Does it rely on a primary data source or secondary data source?

2. Are you drawn to basic or evaluative research? And what intrigues you most, descriptive, explanatory, or predictive research? Try to determine your research orientations by visiting Intute, a web resource put together by a consortium of seven universities in England, at http://www.intute.ac.uk. Choose “Social Sciences” and browse by headings. Once you’ve chosen a heading, go to the “Filter Box” and choose “Papers/Reports/Articles (Individual).” Review the entries and identify reference titles that spark your interest. What do you lean toward regarding applicability and research goals?

3. Connect to the University of Michigan’s Inter-University Consortium for Political and Social Research web site at http://www.icpsr.umich.edu.
   B. Print out a description of the selected data sets.
   C. For each data set, identify (write in the margin of the printout) if it is an example of:
      i. Basic or evaluative research;
      ii. Descriptive, explanatory, or predictive research.

i. Briefly state the “strange belief, amusing deception, or dangerous delusion” that is reviewed.
ii. Using bulleted points, summarize the arguments.
iii. Which of these arguments is most convincing? Least convincing?

B. Describe your overall reaction to this website.

5. Which of the following additional resources, for this chapter and book, do you find most useful as a novice researcher?

A. Professor Saint-Germain’s (at University of California-Long Beach) Research Methods (PPA 696) web page, www.csulb.edu/~msaintg/ppa696/696menu.htm. For this chapter, see “Session One.”
B. W.K. Kellogg’s Foundation Evaluation Handbook at www.wkkf.org/Pubs/Tools/Evaluation/Pub770.pdf. For this unit, see Chapters 2 and 3.
C. The peer-reviewed electronic journal, Practical Assessment, Research, and Evaluation at http://pareonline.net/. Click on “Articles” and under “Articles of Special Interest To,” click on “Research Students” and “Evaluation Students.”