

Chapter 1

The Nature and Tools of Research

Multiple-Choice Questions

- To be considered true research, a project must:
 - gather together a body of existing information and communicate it in a clear and concise way.
 - uncover obscure or esoteric information and bring it to the consideration of the broader research community.
 - gather and interpret information in a systematic fashion so as to increase understanding of some phenomenon.
 - produce definitive conclusions regarding the subject of study.
- Which of the following examples illustrates research as it is described in your textbook?
 - Sally is writing a paper about the effects of the Harry Potter books on the reading habits of fourth graders in the United States and United Kingdom. She goes to a research library to find information to include in her paper.
 - Ian wants to know why the population of songbirds has declined in recent years in the Sutton Wilderness Area. He carefully collects soil and water samples, systematically surveys the entire area for predators, and then sits down to make sense of his findings.
 - Leonard is starting a woodworking business and is not sure how to calculate the cost of his labor so he can be both profitable and fair to the customers. He asks several established business owners how they calculate labor changes.
 - Bill is doing a report on the sonnets of Shakespeare. He carefully reads a number of sonnets and then carefully reads scholarly reviews of those same sonnets written by various Shakespeare scholars. He synthesizes all of this information in his report.
- Research is considered *cyclical* because:
 - the researcher articulates the goals of the project and then collects data to solve a particular problem.
 - questions lead to data collection which leads to interpretations and then to new problems.
 - it has a number of steps that should be followed in order.
 - it is based on solving problems and subproblems in a systematic, unbiased way.
- Cameron is conducting a study that addresses the differences in achievement scores between schools that use block scheduling and schools that use a traditional scheduling format. He has accessed average achievement scores for 1200 schools and now is comparing the two groups. In which research step is Cameron engaged?
 - Recognize and identify a problem
 - Interpret the meaning of the data
 - Analyze the collected data
 - Develop a specific plan to address the problem
- Which of the following is most likely a statement made by a qualitative researcher?

- a. I would like to interview a few of the participants to understand their training.
 - b. I would like to give participants a test to determine their skill level.
 - c. I would like to use teacher ratings to see if the program worked.
 - d. I would like to control which students get the training so we can compare groups of children that did and did not get training.
6. Which of the following is most likely a statement made by a quantitative researcher?
- a. Let's follow the groups for the course of the project and take notes about their social interactions and dialogues.
 - b. Let's conduct some focus groups with college students about the types of cooperative learning they have encountered in their schooling.
 - c. Let's compare unit test scores of those who were placed in cooperative groups and those who were not.
 - d. Let's enroll in a course that uses cooperative groups and observe the nature of the instruction from a student perspective.
7. The philosophical assumption that objective scientific research can uncover true cause-and-effect relationships in the world is known as:
- a. empiricism
 - b. positivism
 - c. experimentation
 - d. realism
8. Qualitative researchers most commonly (but not exclusively) align with which of the following philosophical approaches to research?
- a. positivism
 - b. postpositivism
 - c. constructivism
 - d. empiricism
9. A specific mechanism or strategy the researcher uses to collect, manipulate, or interpret data is known as a:
- a. research tool.
 - b. research method.
 - c. statistical test.
 - d. theory.
10. Research methodology refers to:
- a. the general approach the researcher takes to conducting a research project.
 - b. a specific device the researcher uses to collect data.
 - c. the specific theoretical basis of the research project.
 - d. the statistical tests to be employed in a research project.
11. The primary purpose of inferential statistics is to:
- a. organize and summarize the data.
 - b. turn qualitative data into meaningful numbers that can be interpreted.

- c. measure social and psychological phenomena in an unbiased way.
 - d. help the researcher draw conclusions from the data.
12. Kade has spent the past month carefully observing a group of third graders on the playground during recess, taking note of how the students interact with one another. On the basis of these observations, Kade is drawing conclusions about the interaction styles of boys and girls. This is an example of:
- a. theory building.
 - b. deductive reasoning.
 - c. inductive reasoning.
 - d. the scientific method.
13. Kimberly knows that teenagers often do not make good decisions in areas where they have little knowledge. She also knows that most teens have little knowledge about human sexuality. Therefore, Kimberly believes that teens are likely to make poor decisions about sexual activity. This is an example of:
- a. inductive reasoning.
 - b. theory building.
 - c. problem solving.
 - d. deductive logic.
14. Having completed a series of studies for her dissertation, Marianela sits down to brainstorm about possible explanations for her key findings. She can see a variety of ways in which all data work together, and she prepares to write a final chapter in which she presents those ideas. We would most likely say Marianela is engaged in the process of:
- a. science.
 - b. theory building.
 - c. constructivism.
 - d. deductive reasoning.
15. The primary reason to seek research articles published in academic journals, rather than those posted by the author on the Internet, is that:
- a. they have been carefully selected after an extensive review by experts.
 - b. they are more likely to follow the scientific method.
 - c. they tend to focus on the most important topics in the field.
 - d. they are more objective and show fewer pitfalls in human reasoning.

Essay Questions

16. Describe an example of the word *research* being used inappropriately. Be clear about how your example deviates from the definition of research offered in the chapter.

17. Graduate professors like to insist that the completion of thesis or dissertation research is not merely an “academic exercise” or final hurdle to obtaining the desired degree. Explain at least one personal benefit that the individual derives from completing a high- quality thesis or dissertation. Then explain at least one societal benefit that follows from the individual’s completion of a high-quality thesis or dissertation.

18. Do recent technological advances (e.g., the World Wide Web, electronic databases) assure that future research will be of higher quality, or of greater utility, than past research? Support your answer.

Chapter 2

THE PROBLEM: THE HEART OF THE RESEARCH PROCESS

Students are likely to benefit from practice at formulating research problems. This group activity will help students move from identifying a topic or question of interest to clearly communicating a research problem that can serve as the foundation of a formal investigation.

Form groups of three to five students who share common research interests. Ask each group to formulate a formal statement of a research problem. In doing so, the students will need to consider the importance and practicality of the general research problem. Then they will need to identify subproblems, pose hypotheses, define terms, and state assumptions related to the research problem. Although students may lack a deep familiarity with a body of professional literature and may thus be somewhat limited in their ability to work through all of these steps, the exercise will impress upon them how complex the task of research problem formulation is when done properly. Ask each group to hand in a detailed document at the end of the activity.

The research problems formulated in this exercise will be a good basis for the group activity recommended for later chapters. Therefore, you may want to make note of group membership from this activity and collect the research problem exercises for later use.

Chapter 2

THE PROBLEM: THE HEART OF THE RESEARCH PROCESS

Multiple-Choice Questions

1. *Basic* research is:
 - a. research intended to enhance basic knowledge about the physical, biological, psychological, or social world or to shed light on historical, cultural, or aesthetic phenomena.
 - b. large scale research performed under contract with a governmental agency such as the National Science Foundation (NSF), National Institute of Mental Health (NIMH), etc.
 - c. informal research conducted locally by a small staff with a small budget, the purpose of which is to pave the way for larger research initiatives.
 - d. research intended to address issues that have immediate relevance to current practices, procedures, and policies.
2. *Applied* research is:
 - a. research intended to enhance basic knowledge and theoretical reasoning about the world.
 - b. large-scale research performed under contract with a governmental agency.
 - c. informal research conducted by a small staff with a small budget, designed to shed light on a problem of local interest.
 - d. research that informs human decision making about immediate, practical problems.
3. Which of the following represents a well-written *basic* research problem?
 - a. “Which general education course is more interesting, U.S. History or World Music?”
 - b. “How do business teams of six or fewer members compare to teams of more than six members in terms of productivity?”
 - c. “How does the organization of mathematical information in long-term memory differ between 3-year-olds and 13-year-olds?”
 - d. “What is the ratio of native-born students to international students on the campuses of major U.S. state universities?”
4. Which of the following represents a well-written *applied* research problem?
 - a. “How does the organization of mathematical information in long-term memory differ between 3-year-olds and 13-year-olds?”
 - b. “How do business teams of six or fewer members compare to teams of more than six members in terms of productivity?”
 - c. “Which general education course is more interesting, U.S. History or World Music?”
 - d. “What is the ratio of native-born students to international students on the campuses of major U.S. state universities?”
5. Three of the following questions lend themselves well to research. Which one does NOT?
 - a. “How does the organization of mathematical information in long-term memory differ between 3-year-olds and 13-year-olds?”

- b. "How do business teams of six or fewer members compare to teams of more than six members in terms of productivity?"
 - c. "Does message medium, print versus television, impact the effectiveness of public service health messages?"
 - d. "Which general education course is more interesting, U.S. History or World Music?"
6. Three of the following are characteristics of a well-written research problem. Which one is NOT?
- a. The problem statement includes the researcher's hypothesis.
 - b. The problem statement clearly delimits the object(s) of study.
 - c. The problem statement identifies the important factors to be investigated in the study.
 - d. The problem statement explicitly identifies assumptions.
7. "What proportion of workers hired by selected factories in the state of Oklahoma between 1995 and 2000 held four-year college degrees?"
- The chief weakness of this research problem is that:
- a. it lacks clarity or completeness in the problem statement.
 - b. it implies only description of the data, not interpretation.
 - c. it does not lead to the creation/discovery of new information.
 - d. studying the question as stated is not feasible.
8. "What do underemployed U.S. workers (i.e., those workers who are employed, but not in positions for which they have specialized training or expertise) identify as the primary reason for their inability to find suitable employment?"
- The chief weakness of this research problem is that:
- a. it lacks clarity or completeness in the problem statement.
 - b. it does not lead to the creation/discovery of new information.
 - c. it implies only description of the data, not interpretation.
 - d. studying the question as stated is not feasible.
9. "What is the correlation between an index of civic-mindedness and years of involvement in local organizations and charities among members of city councils of selected mid-sized cities in the northeastern United States?"
- The chief weakness of this research problem is that:
- a. it implies only description of the data, not interpretation.
 - b. it does not lead to the creation/discovery of new information.
 - c. it lacks clarity or completeness in the problem statement.
 - d. studying the question as stated is not feasible.
10. "Among social workers in selected U.S. urban areas, are the personality characteristics of Need for Structure or In-Group Preference related to prejudicial social judgments about African Americans, Latino Americans, or Asian Americans?"
- Which of the following is a well-stated subproblem that follows from this research problem?
- a. Which group is more discriminated against by the public at large in each of the selected areas: African Americans, Latino Americans, or Asian Americans?

- b. What is the most valid existing measure of In-Group Preference?
 - c. What is the relationship between an index of Need for Structure and an index of prejudice targeting attitudes about Asian Americans among the selected social workers?
 - d. Which analytic technique is best suited to addressing the research problem, multiple regression or path analysis?
11. Which of the following represents a null hypothesis?
- a. Class A high school basketball teams who employ a sports psychologist will have a higher proportion of wins over the course of the season than comparable teams who do not employ a sports psychologist.
 - b. There will be no difference in rate of skill improvement between college gymnasts who practice meditation and those who do not.
 - c. Does incorporating relaxation exercises into the daily practice routine of college vocal majors enhance their performance confidence?
 - d. None of the above
12. Which of the following represents a research hypothesis?
- a. Class A high school basketball teams who employ a sports psychologist will have a higher proportion of wins over the course of the season than comparable teams who do not employ a sports psychologist.
 - b. There will be no difference in rate of skill improvement between college gymnasts who practice meditation and those who do not.
 - c. Does incorporating relaxation exercises into the daily practice routine of college vocal majors enhance their performance confidence?
 - d. None of the above
13. Lucy examined relationships between middle-school students' self-esteem and their performance in Mathematics. Her data analysis indicated that students with higher self-esteem perform better than those with lower self-esteem. Her investigation further revealed that students with higher self-esteem are more willing to invest effort in solving Math problems. In this case, the amount of effort is
- a. An independent variable
 - b. A dependent variable
 - c. A mediating variable
 - d. A moderating variable
14. Research suggests that children who eat hot breakfast at home perform better at school. Many argue that not only hot breakfast but also parental care of children before they go to school has an impact on children's performance. In this case, parental care is
- a. An independent variable
 - b. A dependent variable
 - c. A mediating variable
 - d. A moderating variable
15. Imani analyzed data and found that explicitly teaching reading strategies improves students' performance on standardized tests. In this study, explicit teaching of reading strategies is

- a. An independent variable
 - b. A dependent variable
 - c. A mediating variable
 - d. A moderating variable
16. Marcos's study suggested that elementary students who watch TV more than three hours a day are more likely to be overweight than students who watch less TV. In this study, students' weight is
- a. An independent variable
 - b. A dependent variable
 - c. A mediating variable
 - d. A moderating variable
17. Anneka ends her research proposal by introducing several variables that she does NOT plan to study, along with an explanation of why she's not studying them. When she presents her proposal to her research committee, her primary advisor is most likely to say:
- a. Be sure to include operational definitions for these variables.
 - b. Take that section out; focus only on what you intend to do in this study.
 - c. It's good that you've identified the delimitations of your study before you begin.
 - d. Don't let your personal biases interfere with your plans; remain as objective as possible.

Essay Questions

18. Why is it important that the researcher articulate, as clearly as possible, all assumptions that affect the research problem?
19. Daphne has been a member of a research team studying interpersonal aggression among preschoolers for more than a year. In that time, her team has repeatedly employed a consistent set of techniques and procedures to study preschoolers as they interact in a number of settings. The procedures revolve around volunteer mothers bringing their children to the university child development lab for a "play session" that is the basis of the formal observations. Settings they have studied so far include: the university pre-school, affluent local day-care centers, and a pre-kindergarten program being offered in the neighborhood school district. All of these settings were fairly racially homogenous.

Daphne has just learned that a friend of a friend can help her gain research access, in the near future, to preschoolers in an unusually racially diverse though impoverished preschool setting. Daphne decides she has no time to prepare a formal research proposal before embarking on the study. "Besides," she thinks, "this study should go just like all the others we've done."