

CHAPTER 1

1. The scientific method is a set of systematic techniques used to acquire, modify and integrate knowledge concerning observable or measurable phenomena.
2. The rules of a game define the game in that to play the game, players must follow the rules of the game. In a similar way, the scientific method has assumptions or rules that must be followed to be able to engage in the scientific method.
3. Step 1: Identify a problem. Step 2: Develop a research plan. Step 3: Conduct the study. Step 4: Analyze and evaluate the data. Step 5: Communicate the results. Step 6: Generate more new ideas.
4. (a) rationalism, (b) the scientific method
5. the number of outbursts
6. The statistics class has a *population* of 25 students enrolled, but a *sample* of only 23 students attended.
7. False, because samples are a set of *selected* individuals, items, or data taken from a larger population of interest. By definition then, samples will always be smaller than the population from which they were selected.
8. Authority; it is a method of knowing accepted as fact because it was stated by an expert or respected source in a particular subject area.
9. Empiricism; it is a method of knowing based on one's experiences or observations.
10. describe, explain, predict, control
11. describe
12. (a) basic research, (b) applied research
13. applied research
14. (a) qualitative research, (b) quantitative research, (c) quantitative research, (d) qualitative research
15. quantitative research

CHAPTER 2

1. An idea has to be novel or new because a researcher must be able to show how an idea adds to or builds upon the scientific literature.
2. (a) "Social media engagement by adolescent girls is high. Despite its appeal, there are potential negative consequences for body dissatisfaction and disordered eating from social media use."

(b) "This study aims to examine . . . the relationship between social media use, and social media activities related to taking 'selfies' and sharing [and photoshopping these self-images], with overvaluation of shape and weight, body dissatisfaction, and dietary restraint."
3. theory
4. Begin your search with secondary sources because you can identify many potential primary sources in a single article making your search more efficient.

5. Five databases are PsycInfo, PsycArticles, PubMed, ERIC, and JSTOR. Each database typically provides an abstract and reference information for each available article.
6. (a) This is an ethical example because the student read the full text of an abstract they found interesting. (b) This is an unethical example because the student failed to obtain the primary source that was cited in his paper.
7. Be comprehensive, be critical, and be clever.
8. The advantage is that you can filter through almost all the articles not relevant to your research topic by reading only the title and abstract.
9. (a) deductive reasoning, (b) inductive reasoning
10. (a) “You notice that among your college friends, that those who are the most outgoing always seem to be dating. You conclude that being outgoing is necessary to get a date.”
(b) “Using this conclusion as your theory, you predict that more outgoing individuals are more likely to date.”
11. A confirmational strategy is a method of testing a theory or hypothesis in which a positive result confirms the predictions made by that theory or hypothesis; a disconfirmational strategy is a method of testing a theory or hypothesis in which a positive result disconfirms the predictions made by that theory or hypothesis.
12. To test predictions using the confirmational strategy we use logic that is not always true. For this reason, a confirmational strategy alone to test theories is not good practice.
13. The problem is that editors of peer-reviewed journals tend to preferentially accept articles that show positive results and reject those that show only negative results. Therefore, the size of an effect could be overstated for many behavioral phenomena reported in the peer-reviewed literature.