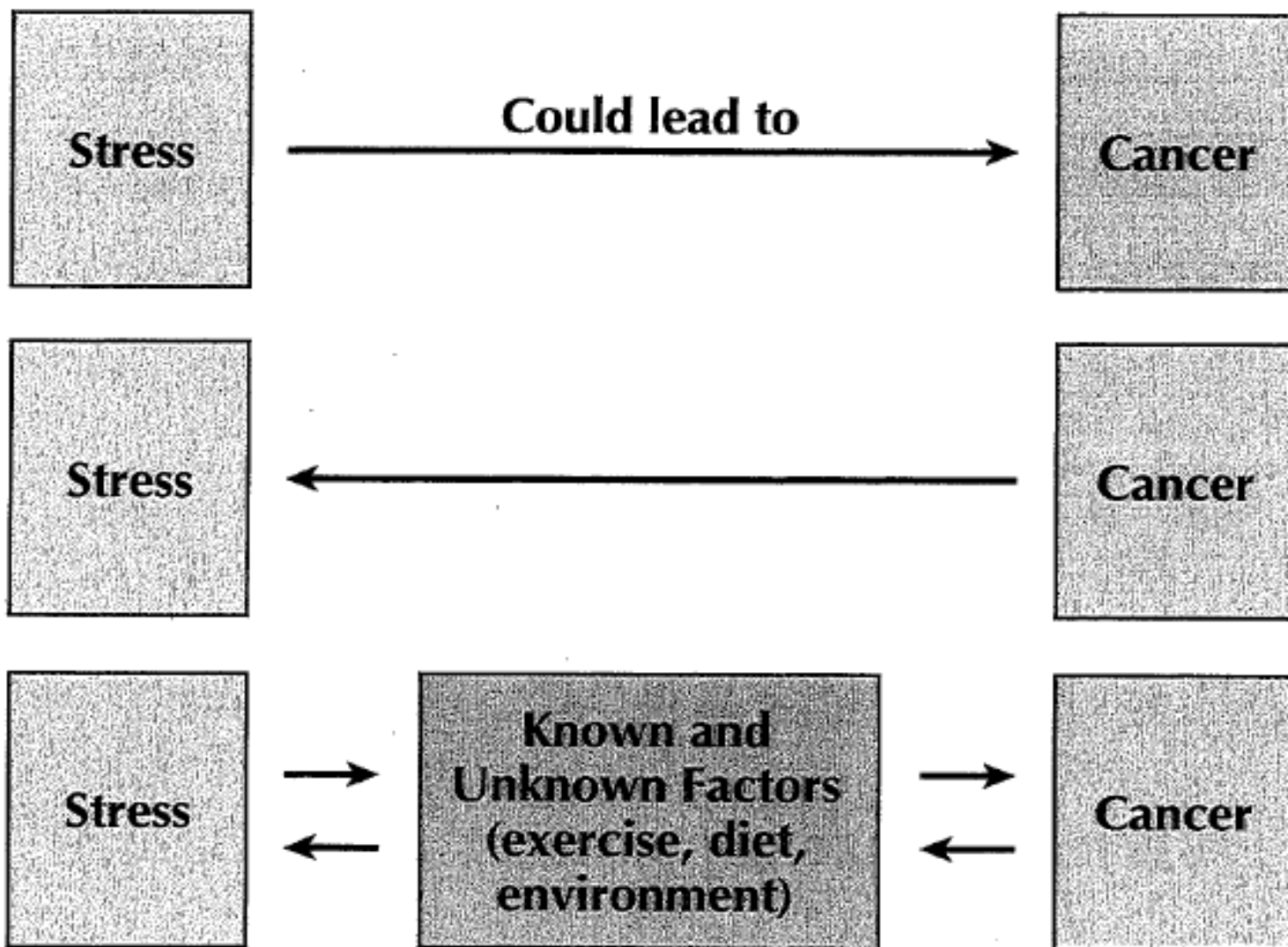


TABLE 1.2 BASIC METHODS OF PSYCHOLOGICAL RESEARCH

Method	Basic Purpose	Advantages	Disadvantages
Experiment: manipulation and control of variables	Identify cause and effect	Allows researchers precise control over variables and to identify cause and effect	Ethical concerns, practical limitations, artificiality of lab conditions, uncontrolled variables may confound results, researcher and participant biases
Nonexperimental/descriptive studies: naturalistic observation, surveys, case studies	Observe and record behavior and mental processes	Minimizes artificiality easier to collect data	Little or no control over variables, researcher and participant biases, can't explain why certain behaviors occur
Nonexperimental/correlational studies: statistical analyses of relationships between variables	Identify relationships and how well one variable predicts another	Helps clarify relationships between variables that can't be examined by other methods and allows prediction	Does not allow researchers to identify cause and effect relationships



Labeling Variables and Groups

Name the IV, DV, control group, and experimental group for each scenario.

- A. A researcher is interested in how the activity level of four-year-olds is affected by viewing a 30-minute video of Teenage Mutant Ninja Turtles or a 30-minute video of Barney.**

IV _____
DV _____

Experimental Group(s) _____

Control Group _____

- B. A therapist wants to test a new drug designed to increase the ability of teenagers with ADHD to take accurate notes in class.**

IV _____
DV _____

Experimental Group(s) _____

Control Group _____

C. A biopsychologist wants to know whether exposure to testosterone in adult female rats increases their aggressive behavior.

IV _____
DV _____

Experimental Group(s) _____

Control Group _____

D. An industrial psychologist believes that cooling the room temperature may have an impact on productivity of workers on the assembly line.

IV _____
DV _____

Experimental Group(s) _____

Control Group _____

Operational Definitions

A health psychologist and an industrial/organizational psychologist are interested in determining whether job stress has detrimental effects on health.

Independent/Subject Variable: _____

Dependent Variable: _____

A clinical psychologist would like to know whether a history of early childhood abuse is related to later vulnerability to depression, substance abuse, and addiction.

Independent/Subject Variable: _____

Dependent Variables: _____

A cognitive psychologist would like to find out whether more extensive education might protect individuals from dementia and related disorders later in life.

Independent/Subject Variable: _____

Dependent Variable: _____

An educational psychologist is studying the effectiveness of a special program for teen parents. The program provides education and support related to parenting skills and career goals. He wants to know whether participants' school performance and psychological health will improve.

Independent/Subject Variable: _____

Dependent Variables: _____

A social psychologist is interested in the relationship between religiosity and marital satisfaction.

Independent/Subject Variable: _____

Dependent Variable: _____

I want to know...

- 1. Does oat bran reduce cholesterol?**
- 2. Does exposure to day care enhance children's social skills?**
- 3. Do couples who cohabit prior to marriage experience greater success in keeping the marriage together?**
- 4. How do gorillas mate?**
- 5. Do people exhibit more aggressive behavior when it is hot?**
- 6. How do people in elevators behave?**
- 7. Does taking vitamin C reduce the number of colds a person gets?**
- 8. Does touch affect the physical growth of children?**
- 9. Does eating fast make people obese?**
- 10. Is spanking an effective way to discipline children?**
- 11. Which of two new antidepressants is more effective in treating depression?**
- 12. In fifth-grade classrooms, are boys or girls more likely to say answers aloud without raising their hands?**
- 13. Is there a relationship between the number of books in a family's home and the children's school grades?**
- 14. The police have discovered a 6-year-old who has been kept in a room by herself since birth and not exposed to spoken language. Does the lack of early exposure to language result in an inability to learn language?**
- 15. How many hours of TV do most 8-year-olds in the United States watch per day?**

Research Methods

1. A young girl has her right hemisphere removed at age 3 to control intractable seizures. Her progress is monitored over the course of her childhood and adolescence.
2. A social psychologist wants to know whether individuals will behave more altruistically after exposure to media messages that portray altruism as a characteristic of successful and affluent people.
3. A health psychologist is interested in the effects of humor on a person's ability to tolerate stress.
4. A school district is funding research to determine whether structured programs of after-school activities targeted for at-risk youth decrease dropout rates in middle and high school.
5. Which is most effective in alleviating generalized anxiety disorder— anti-anxiety medication alone, desensitization therapy alone, or a combination of medication and therapy?
6. Do prisoners in a maximum-security prison show more hostility toward strict, highly authoritarian guards than they do toward more democratic, authoritative guards?
7. A seven-hour blackout in a large city in Europe results in relatively little looting and violence, much to the amazement of authorities.
8. Does a "flex-time" policy result in fewer employee absences?
9. Friendly panhandlers in a large passenger railroad terminal receive more handouts than gruff or somber panhandlers.
10. Does a behavior modification program featuring financial incentives improve compliance with a medically supervised weight-loss program?

What Type of Variable Is It? What Type of Group Is It?

Read the statements below and then identify the independent and dependent variables and the experimental and control groups.

1. Participants taking part in a sleep study to determine whether the number of hours of sleep a person gets determines how well they will do on an exam were randomly assigned to either the group that was woken up at various times throughout the night or the group that was allowed to sleep throughout the night.

Independent Variable:

Dependent Variable:

Experimental Group:

Control Group:

2. Participants took part in a study to determine the number of consumed beers it would take to affect their ability to walk in a straight line.

Independent Variable:

Dependent Variable:

Experimental Group:

Control Group:

3. Pharmaceutical Company X conducted an experiment to determine if the new migraine headache pill would alleviate migraine headaches.

Independent Variable:

Dependent Variable:

Experimental Group:

Control Group:

4. College X conducted an experiment to determine if freshmen who had their schedules made for them did better in their freshman year than freshmen who made their own schedules.

Independent Variable:

Dependent Variable:

Experimental Group:

Control Group:

Population and Samples

Read the statements below. In the space provided, identify who the population is and who the sample could be. (None of the examples are factual.)

1. It is hypothesized that there is a higher rate of teenage pregnancy in single-parent households than in two-parent households.

Population:

Sample:

2. It is hypothesized that there is more school violence in inner-city schools than in suburban schools.

Population:

Sample:

3. It is hypothesized that infants born prematurely get better grades in high school than those infants not born prematurely.

Population:

Sample:

4. It is hypothesized that college freshman drink more alcoholic beverages than college seniors.

Population:

Sample:

5. It is hypothesized that students who started their education at a community college are more likely to graduate than students who started their education at a four-year college.

Population:

Sample: