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| <p>Psychology</p> | <p>The scientific study of mental activity and behavior, which are based on brain processes*. (page 4)</p> <p>* the scientific study of mental activity and behavior can be due to social forces as well as brain processes.</p> |
| <p>Empiricism</p> | <p>An evidence-based approach to gaining knowledge by conducting research that systematically investigates and measures phenomena of interest. (page 5)</p> |
| <p>Science of learning</p> | <p>Research in psychology and other fields that suggests how you can improve your study skills, learning, and academic performance. (page 6)</p> |

Critical thinking

Systematically evaluating information to reach conclusions based on the evidence that is presented. (page 10)

Domains of psychology

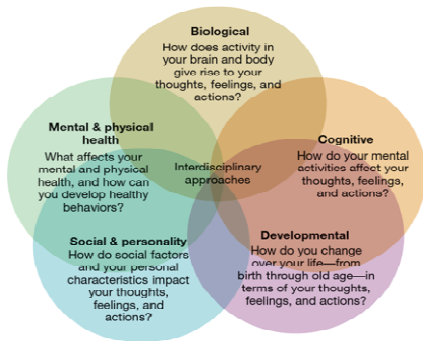


FIGURE 1.8

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The five interconnected areas of empirical research in modern psychology: biological, cognitive, developmental, social and personality, and mental and physical health domains. (page 17)

diversity

Any differences between people that becomes apparent in a specific context. (page 19)

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| culture | The beliefs, values, rules, and customs that exist within a group of people who share a common language and environment, which are transmitted through learning from one generation to the next. (page 22) |
| ethics | Accepted standards of right and wrong that guide people's behavior. (page 24) |
| Institutional review board (IRB) | Group of people responsible for reviewing proposed research to ensure that it meets the accepted ethical standards of science and provides for participants' physical and emotional well-being. (page 24) |

Scientific method



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A continuous five-step process that allows systematic observation and measurement of phenomena to reach one or more scientific goals. (page 25)

Theory

A series of interconnected ideas or concepts that explains what is observed in research and that makes predictions about future events. (page 25)

hypothesis

A specific, testable prediction of what should be observed in a study if a theory is correct. (page 27)

replication

Repetition of a research study to confirm or contradict the results.
(page 28)

Descriptive methods

Research methods that provide a systematic and objective snapshot of what is occurring at a certain point in time. (page 29)

Correlational methods

Correlational methods examine how variables are related, without intervention by the observer.

Advantages Rely on naturally occurring relationships. May take place in a real-world setting.

Disadvantages Cannot demonstrate causal relationships (that one thing happened because of the other). Cannot show the direction of the cause/effect relationship between variables (*directionality problem*). An unidentified variable may be involved (*third variable problem*).

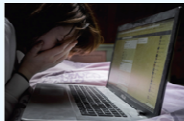


FIGURE 1.23

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Research methods that examine how variables are naturally related in the real world without altering the variables and without revealing whether one factor causes changes in another. (page 34)

Experimental methods

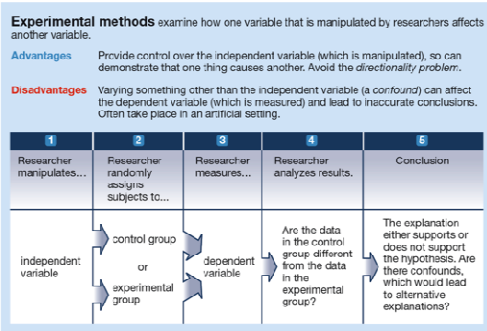


FIGURE 1.25

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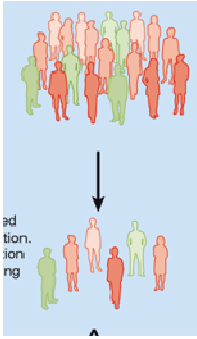
Research methods that can reveal causality by manipulating independent variables and measuring the effects on dependent variables. (page 37)

Independent variable (IV)

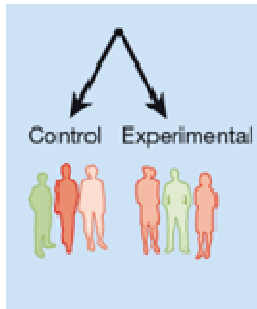
In an experiment, the variable that the experimenter manipulates to examine its impact on the dependent variable. (page 37)

Dependent variable (DV)

In an experiment, the variable that is measured to determine how it was affected by the manipulation of the independent variable. (page 38)

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| <p>Control group</p> | <p>In an experiment, a group of participants that receive either no treatment or a baseline manipulation that is expected to have little or no impact; this group serves as a comparison to the experimental group. (page 38)</p> |
| <p>Experimental group</p> | <p>In an experiment, one or more groups of participants that experience the treatment of interest based on manipulation of the independent variable. (page 38)</p> |
| <p>Random sample</p>  | <p>A sample of participants that fairly represent the population because each member of the population has an equal chance of being included. (page 41)</p> |

Random assignment



Placing research participants into the conditions of an experiment in such a way that each participant has an equal chance of being assigned to any level of the independent variable. (page 41)



Warning: not all of the key ideas are on this list of key terms