

APP 1A Introduction & Prologue Vocabulary

1. behavioral psychology the view that psychology (1) should be an objective science that (2) studies behavior without reference to mental processes. Most research psychologists today agree with (1) but not with (2).
2. humanistic psychology a historically significant perspective that emphasized the growth potential of healthy people.
3. cognitive neuroscience the interdisciplinary study of the brain activity linked with cognition (including perception, thinking, memory, and language).
4. psychology the science of behavior and mental processes.
5. natural selection the principle that, among the range of inherited trait variations, those contributing to reproduction and survival will most likely be passed on to succeeding generations.
6. levels of analysis the differing complementary views, from biological to psychological to social-cultural, for analyzing any given phenomenon.
7. biopsychosocial approach an integrated approach that incorporates biological, psychological, and social-cultural levels of analysis.
8. basic research pure science that aims to increase the scientific knowledge base.
9. applied research scientific study that aims to solve practical problems.
10. counseling psychology a branch of psychology that assists people with problems in living (often related to school, work, or marriage) and in achieving greater well-being.
11. clinical psychology a branch of psychology that studies, assesses, and treats people with psychological disorders.
12. psychiatry a branch of medicine dealing with psychological disorders; practiced by physicians who sometimes provide medical treatment as well as psychological therapy.
13. positive psychology the scientific study of human functioning, with the goals of discovering and promoting strengths and virtues that help individuals and communities to thrive.
14. community psychology a branch of psychology that studies how people interact with their social environments and how social institutions affect individuals and groups.
15. testing effect enhanced memory after retrieving, rather than simply rereading, information. Also sometimes referred to as a retrieval practice effect or test-enhanced learning.

16. empiricism the view that knowledge originates in experience and that science should, therefore, rely on observation and experimentation.
17. structuralism early school of thought promoted by Wundt and Titchener; used introspection to reveal the structure of the human mind.
18. functionalism early school of thought promoted by James and influenced by Darwin; explored how mental and behavioral processes function - how they enable the organism to adapt, survive, and flourish.
19. experimental psychology the study of behavior and thinking using the experimental method.
20. nature-nurture issue the longstanding controversy over the relative contributions that genes and experience make to the development of psychological traits and behaviors. Today's science sees traits and behaviors arising from the interaction of nature and nurture.
21. biological psychology the scientific study of the links between biological (genetic, neural, hormonal) and psychological processes.
22. cognitive psychology the scientific study of all the mental activities associated with thinking, knowing, remembering, and communicating.
23. evolutionary psychology the study of the evolution of behavior and mind, using principles of natural selection.
24. psychodynamic psychology a branch of psychology that studies how unconscious drives and conflicts influence behavior, and uses that information to treat people with psychological disorders.
25. social-cultural psychology the study of how situations and cultures affect our behavior and thinking.
26. psychometrics the scientific study of the measurement of human abilities, attitudes, and traits.
27. developmental psychology a branch of psychology that studies physical, cognitive, and social change throughout the life span.
28. educational psychology the study of how psychological processes affect and can enhance teaching and learning.
29. personality psychology the study of an individual's characteristic pattern of thinking, feeling, and acting.

- 30. social psychology the scientific study of how we think about, influence, and relate to one another.
- 31. industrial-organizational (I/O) psychology the application of psychological concepts and methods to optimizing human behavior in workplaces.
- 32. human factors psychology an I/O psychology subfield that explores how people and machines interact and how machines and physical environments can be made safe and easy to use.
- 33. trephination an act or instance of perforating the skull with a surgical instrument.

APP 1B Research Methodology Vocabulary

1. hindsight bias the tendency to believe, after learning an outcome, that one would have foreseen it. (Also known as the "I knew it all along phenomenon")
2. overconfidence Human tendency to think we know more than we do.
3. critical thinking thinking that does not blindly accept arguments and conclusions. Rather, it examines assumptions, assesses the source, discerns hidden values, evaluates evidence, and assesses conclusions.
4. theory an explanation using an integrated set of principles that organizes observations and predicts behaviors or events.
5. hypothesis a testable prediction, often implied by a theory.
6. operational definition a carefully worded statement of the exact procedures (operations) used in a research study. For example, human intelligence may be operationally defined as what an intelligence test measures.
7. replication repeating essence of a research study, usually with different participants in different situations, to see whether the basic finding extends to other participants and circumstances.
8. case study a descriptive technique in which one individual or group is studied in depth in the hope of revealing universal principles.
9. naturalistic observation observing and recording behavior in naturally occurring situations without trying to manipulate and control the situation.
10. survey a technique for ascertaining the self-reported attitudes or behaviors of a particular group, usually by questioning a representative, random sample of a group.
11. sampling bias a flawed sampling process that produces an unrepresentative sample.
12. population all those in a group being studied, from which samples may be drawn. (Except for national studies, this does not refer to a country's whole population.)
13. random sample a sample that fairly represents a population because each member has an equal chance of inclusion.
14. correlation a measure of the extent to which two variables change together, and thus of how well either variable predicts the other (not causation).
15. correlation coefficient a statistical index of the relationship between two variables from (-1.0 - +1.0).

16. scatterplot a graphed cluster of dots, each of which represents the values of two variables. The slope of the points suggests the direction of the relationship between the two variables. The amount of scatter suggests the strength of the correlation (little scatter indicates high correlation).
17. illusory correlation the perception of a relationship where none exists.
18. experiment a research method in which an investigator manipulates one or more factors (independent variables) to observe the effect on some behavior or mental process (the dependent variable). By random assignment of participants, the experimenter aims to control other relevant variables.
19. debriefing the post-experimental explanation of a study, including its purpose and any deceptions, to its participants.
20. informed consent an ethical principle that research participants be told enough to enable them to choose whether they wish to participate.
21. statistical significance a statistical statement of how likely it is that an obtained result occurred by chance.
22. normal curve (normal distribution) a symmetrical, bell-shaped curve that describes the distribution of many types of data; most scores fall near the mean (~68% fall within one standard deviation of it) and fewer and fewer near the extremes.
23. inferential statistics numerical data that allow one to generalize- to infer from sample data the probability of something being true of a population.
24. range the difference between the highest and lowest scores in a distribution.
25. standard deviation a computed measure of how much scores vary around the mean score.
26. skewed distribution a representation of scores that lack symmetry around their average value.
27. descriptive statistics numerical data used to measure and describe characteristics of groups. Includes measures of central tendency and measures of variation.
28. histogram a bar graph depicting a frequency distribution.
29. mode the most frequently occurring score(s) in a distribution.
30. mean the arithmetic average of a distribution, obtained by adding the scores and then dividing by the number of scores.

31. median the middle score in a distribution; half the scores are above it and half are below it.
32. placebo effect experimental results caused by expectations alone; any effect on behavior caused by the administration of an inert substance or condition, which the recipient assumes is an active agent.
33. independent variable the experimental factor that is manipulated; the variable whose effect is being studied.
34. confounding variable a factor other than the independent variable that might produce an effect in an experiment.
35. dependent variable the outcome factor; the variable that may change in response to manipulations of the independent variable.
36. validity the extent to which a test or experiment measures or predicts what it is supposed to.
37. random assignment assigning participants to experimental and control groups by chance, thus minimizing preexisting differences between the different groups.
38. control group in an experiment, the group not exposed to the treatment; contrasts with the experimental group and serves as a comparison for evaluating the effect of the treatment.
39. experimental group In an experiment, the group exposed to the treatment, that, to one version of the independent variable.
40. double-blind procedure an experimental procedure in which both the research participants and the research staff are ignorant (blind) about whether the research participants have received the treatment or a placebo. Commonly used as drug-evaluation studies.
41. demand characteristics circumstances which create the possibility that participants may be adjusting their responses
42. social desirability when a participant gives a response that they believe to be more socially acceptable or "correct" even if that response does not accurately reflect the truth
43. Hawthorne Effect the effect of changes in the environment during a study (regardless of what the changes are) that may prove biases
44. observer bias a researcher's or observer's expectation(s) that may influence their observations

- 45. construct validity the extent to which variables clearly measure what they are supposed to measure
- 46. reporting bias when only statistically significant findings are published; (survey method) if there may be something different about the people who respond to a survey
- 47. opportunity sample/convenience sample a sample based on the members of the target population that are readily available
- 48. stratified sampling when participants are selected for specific traits or characteristics
- 49. representative sample a sample that accurately reflects the characteristics of the population as a whole
- 50. positive correlation as one variable increases the other increases
- 51. negative correlation as one variable increases the other decreases
- 52. effect size size of a difference that has been found in a study
- 53. p-value the probability that the difference between two samples could occur by chance alone (p should equal 0.05 or lower for statistical significance)
- 54. internal validity represents the degree to which an experiment support clear causal conclusions
- 55. external validity the extent to which we can generalize findings to real-world settings
- 56. triangulation use of multiple methods to study one research question
- 57. field experiment An experiment that is conducted in a natural setting rather than in a laboratory setting.
- 58. APA ethical guidelines informed consent, freedom from coercion, protection from harm, risk/benefit analysis, confidentiality, debriefing
- 59. Institutional Review Board (IRB) where proposed studies must go through to be ethically assessed before the study is approved and can be conducted