to accompany

Psychology Research Methods 1st edition by Burton et al.



© John Wiley & Sons Australia, Ltd 2018

Chapter 1 The scientific method

- 1. Which among the following is an example of pseudoscience?
- @ Introduction. Distinguishing science from pseudoscience is especially important for psychology because some statements promoted as 'psychological truth' (e.g., the ability to assess personality by examining someone's handwriting) are actually examples of pseudoscience rather than true science. a. NEO Personality Inventory.
- *b. Graphology.
- c. 16 PF Questionnaire.
- d. Rorschach Inkblot Test.
- e. Myers-Briggs Type Indicator.
- 2. Who is the author of *Principles of Physiological Psychology*?
- @ Introduction. In the preface to his weighty two-volume *Principles of Physiological Psychology*, published in 1874, the German physiologist Wilhelm Wundt boldly and unambiguously declared that his text represented 'an attempt to mark out a new domain of science'.
- a. John B. Watson.
- b. B. F. Skinner.
- *c. Wilhelm Wundt.
- d. E. B. Titchener.
- e. John Dewey.
- 3. The first department of psychology in Australia was established at
- @ Introduction. The first department of psychology in Australia was established at Sydney University by the pioneering Australian researcher, Tasman Lovell, in 1921.
- *a. Sydney University.
- b. University of Melbourne.
- c. Monash University.
- d. University of Queensland.
- e. University of New South Wales.
- 4. Which among the following best describes a methods course?
- @ Learning outcome 1.1: Explain how the purpose of a methods course differs from other courses in the psychology curriculum. The methods course teaches a process of acquiring knowledge about psychological phenomena that is then applied to all the specific content areas represented by other courses in the psychology curriculum.
- a. It is an organised body of knowledge with the psychology curriculum.
- b. It can be described as naturalistic observation.
- *c. It is a process of acquiring knowledge about psychological phenomena that is then applied to all the specific content areas represented by other courses in the psychology curriculum.
- d. It is the application of scientific Ideas.
- e. It is an understanding of principles.
- 5. The difference between the methods course and other courses in the psychology curriculum is essentially the difference between ______.
- @ Learning outcome 1.1: Explain how the purpose of a methods course differs from other courses in the psychology curriculum. The difference between the methods course and other courses in the psychology curriculum is essentially the difference between process and content.
- a. knowledge and application
- © John Wiley & Sons Australia, Ltd 2018

- b. science and pseudoscience
- c. keen observation and systematic presentation
- *d. process and content
- e. scientific assertion and theory
- 6. What is evidence-based practice?
- @ Learning outcome 1.1: Explain how the purpose of a methods course differs from other courses in the psychology curriculum. Evidence-based practice is the idea that any treatment or intervention that you apply as a treating practitioner is based on a convincing body of well-conducted scientific research.
- a. Furnishing evidence to clients to get their informed consent.
- *b. Treatment based on a convincing body of well-conducted scientific research.
- c. Documenting evidence from practice.
- d. Acquiring clear evidence for the improvement in client's condition.
- e. None of the above.
- 7. What particular type of thinking does a research methods course introduce?
- @ Learning outcome 1.1: Explain how the purpose of a methods course differs from other courses in the psychology curriculum.
- *a. The methods course focuses on the process by which knowledge of X is acquired.
- b. The methods course combines all psychological ways of thinking.
- c. The methods course focuses on specific content areas and concentrates on what is known about topic X.
- d. The methods course focuses on both a and c.
- e. The methods course can be individualised, depending on what each student wants to focus on.
- 8. Patients taking pills prescribed by doctors are an example of ______.
- @ Learning outcome 1.2: Identify and evaluate non-scientific ways of knowing about things in the world—through authority, reasoning and experience. As children we are influenced by and believe what our parents tell us (at least for a while), as students we generally accept the authority of textbooks and lecturers, as patients we take the pills prescribed for us by doctors and believe they will have beneficial effects, and so on.
- a. science as a source of knowledge.
- b. reason as a source of knowledge.
- c. experience as a source of knowledge.
- d. empiricism as a source of knowledge.
- *e. authority as a source of knowledge.
- 9. What is not the problem with the use of reason as a way of knowing?
- @ Learning outcome 1.2: Identify and evaluate non-scientific ways of knowing about things in the world—through authority, reasoning and experience.
- a. Truth of the premises.
- b. Possibility of reaching opposing conclusions.
- c. Lack of real progress towards truth.
- *d. The logic of concluding from premises.
- e. None of the above.
- 10. What is a priori method?
- @ Learning outcome 1.2: Identify and evaluate non-scientific ways of knowing about things in the world—through authority, reasoning and experience. Peirce labelled the use of reason, and a developing consensus among those debating the merits of one belief over another, the *a priori* method for acquiring knowledge. Beliefs are deduced from statements about what is thought to be
- © John Wiley & Sons Australia, Ltd 2018

true according to the rules of logic—that is, a belief develops as the result of logical argument, before a person has direct experience with the phenomenon at hand.

- *a. Beliefs deduced from statements according to rules of logic.
- b. Beliefs acquired from empirical approach.
- c. Truths acquired from systematic observation.
- d. Facts gathering from revered sources.
- e. Facts gathered through experimental method.
- 11. What are social cognition biases?
- @ Learning outcome 1.2: Identify and evaluate non-scientific ways of knowing about things in the world—through authority, reasoning and experience. Social cognition biases are factors that influence our interpretation of our experiences.
- a. Having a proclivity for social experience.
- b. They are a higher level of social cognitive functioning.
- c. They are a lower level of social cognitive functioning.
- d. Being a street smart in difficult situation.
- *e. Various factors influencing our interpretation of our experiences.
- 12. Which among the following is not a social cognition bias?
- @ Learning outcome 1.2: Identify and evaluate non-scientific ways of knowing about things in the world—through authority, reasoning and experience. Social cognition biases include: belief perseverance, confirmation bias, availability heuristic and the first instinct fallacy.
- a. Belief perseverance.
- *b. Belief reverence.
- c. Confirmation bias.
- d. Availability heuristic.
- e. First instinct fallacy.
- 13. What is belief perseverance?
- @ Learning outcome 1.2: Identify and evaluate non-scientific ways of knowing about things in the world—through authority, reasoning and experience. It is a tendency to hold on doggedly to a belief, even in the face of evidence that would convince most people the belief is false.
- *a. The unwillingness to consider evidence that contradicts a strongly held view.
- b. Holding other people responsible for harm caused to oneself.
- c. Discounting positive events.
- d. Focusing entirely on the negative elements of a situation.
- e. Reaching preliminary conclusions from little evidence based on belief.
- 14. What is meant by confirmation bias?
- @ Learning outcome 1.2: Identify and evaluate non-scientific ways of knowing about things in the world—through authority, reasoning and experience. Confirmation bias is a tendency to search out and pay special attention to information that supports one's beliefs while ignoring information that contradicts a belief.
- a. Confirming other's emotions through mind reading.
- b. Social confirmation to fit in with a group.
- c. Attributing a person's actions to their character instead of some accidental attribute.
- *d. A tendency to search out information that supports one's beliefs.
- e. Giving proportionally greater weight to a perceived failure or weakness.
- 15. What is availability heuristics?
- @ Learning outcome 1.2: Identify and evaluate non-scientific ways of knowing about things in the world—through authority, reasoning and experience. The availability heuristic occurs when we
- © John Wiley & Sons Australia, Ltd 2018

experience unusual or very memorable events and then overestimate how often such events typically occur.

- a. Attributing personal responsibility for events over which a person has no control.
- b. Evaluating life events in extreme terms.
- *c. Overestimating the frequency of unusual or very memorable events.
- d. Identifying and breaking down maladaptive heuristics.
- e. Heuristics used to manage and defend against psychic pain.
- 16. An example of _____ is when people with racist attitudes pay attention to and seek out information consistent with the prejudice.
- @ Learning outcome 1.2: Identify and evaluate non-scientific ways of knowing about things in the world—through authority, reasoning and experience. Confirmation bias, a tendency to search out and pay special attention to information that supports one's beliefs while ignoring information that contradicts a belief (Wason & Johnson-Laird, 1972).
- *a. confirmation bias
- b. social confirmation
- c. actor-observer bias
- d. egocentric bias
- e. ingroup bias
- 17. What does determinism mean?
- @ Learning outcome 1.3: Describe the attributes of science as a way of knowing. Determinism simply means that events, including psychological ones, have causes, and discoverability means that by using agreed-upon scientific methods, these causes can be discovered with some degree of confidence.
- a. Determined perseverance of an achievement oriented person.
- b. The state of being determined to act.
- *c. Events have causes.
- d. The ability to act at one's own discretion.
- e. Spontaneity of the behaviour and events.
- 18. What does discoverability mean?
- @ Learning outcome 1.3: Describe the attributes of science as a way of knowing. Determinism simply means that events, including psychological ones, have causes, and discoverability means that by using agreed-upon scientific methods, these causes can be discovered with some degree of confidence.
- a. Events have causes.
- b. Discovering of one's inner potential.
- c. Becoming a fully functioning individual.
- d. Discovering one's self-actualising motivation.
- *e. Causes can be found out with some degree of confidence.
- 19. Which among the following accurately describes the concept of determinism?
- @ Learning outcome 1.3: Describe the attributes of science as a way of knowing. Determinism simply means that events, including psychological ones, have causes.
- *a. All events have causes.
- b. Events are determined ahead of time.
- c. Fatalistic conviction.
- d. Controllability of experimental variables.
- e. Ability to act at one's own discretion.

20. The view that events can be predicted but only with a probability greater than chance is known as @ Learning outcome 1.3: Describe the attributes of science as a way of knowing. Most scientists, influenced by twentieth-century developments in physics and the philosophy of science, take a mor moderate view that could be called probabilistic or statistical determinism. This approach argues that events can be predicted, but only with a probability greater than chance. a. chance variation b. error variance c. statistical prediction *d. statistical determinism e. probabilistic variability	
21. Which among the following is not included in systematic observation? @ Learning outcome 1.3: Describe the attributes of science as a way of knowing. The scientist's systematic observations include using (a) precise definitions of the phenomena being measured, (b) reliable and valid measuring tools that yield useful and interpretable data, (c) generally accepted research methodologies, and (d) a system of logic for drawing conclusions and fitting those conclusions into general theories. a. Precise definitions of the phenomena being measured. *b. Good strategies derived from heuristics. c. Reliable and valid measuring tools that yield useful and interpretable data. d. Generally accepted research methodologies. e. A system of logic for drawing conclusions.)
22. What does introspection as a method in psychology entail? @ Learning outcome 1.3: Describe the attributes of science as a way of knowing. When psychology first emerged as a new science, it defined itself as the 'science of mental life,' and one of its early methods was called introspection. This procedure varied considerably from one laboratory to another, but it was basically a form of precise self-report. a. Participant observation in a group. b. Realising one's strengths and weakness. *c. A form of precise self-report. d. Ruminating on life events. e. Learning through trial and error.	У
23. Who coined the term clinical psychologist? @ Learning outcome 1.3: Describe the attributes of science as a way of knowing. Lightner Witmer coined the term clinical psychologist. a. Hugo Munsterberg. b. Carl Rogers. c. Sigmund Freud. d. B. F. Skinner. *e. Lightner Witmer.	
24. The concept 'sceptical optimists' denotes @ Learning outcome 1.3: Describe the attributes of science as a way of knowing. We would describe research psychologists as 'sceptical optimists.' They are open to new ideas and optimistic about using scientific methods to test these ideas, but at the same time they are tough-minded—the	y

 $\ensuremath{{}^{\odot}}$ John Wiley & Sons Australia, Ltd 2018

won't accept claims without good evidence.

b. researchers who are non-believers in god

a. researchers who holds sceptical view about optimism

c. researchers who disagree with positivistic views

- d. researchers who believe pessimism and optimism are two sides of a coin *e. researchers open to new ideas but not accepting them without good evidence 25. In science, if it can be verified by more than one observer is known as showing @ Learning outcome 1.3: Describe the attributes of science as a way of knowing. An objective observation, as the term is used in science, is simply one that can be verified by more than one observer. *a. objectivity b. systematic observation c. validity d. productivity e. respectability 26. Pseudoscience refers to @ Learning outcome 1.4: Distinguish science from pseudoscience and recognise the attributes of pseudoscientific thinking. The term pseudoscience is applied to any field of inquiry that appears to use scientific methods and tries hard to give that impression but is actually based on inadequate, unscientific methods and makes claims that are generally false or, at best, simplistic. a. using scientific methods for mundane events *b. a field of enquiry mistakenly regarded as being based on scientific method c. the studying of events beyond the realm of scientific approach d. objectivity and verifiability of scientific methods e. the infallibility of scientific methods 27. What is phrenology? @ Learning outcome 1.4: Distinguish science from pseudoscience and recognise the attributes of pseudoscientific thinking. Phrenology is the detailed study of the shape and size of the cranium as a supposed indication of character and mental abilities. a. It is the ancient study of the brain. b. The study of facial features to predict the character and abilities. c. The study of body shape as a supposed indication of character and abilities. *d. The study of the shape and size of the cranium as a supposed indication of character and abilities e. The practice of purportedly evicting demons through a hole in skull. 28. Author of the book *Phrenology Examined* is @ Learning outcome 1.4: Distinguish science from pseudoscience and recognise the attributes of pseudoscientific thinking. Pierre Flourens (1794–1867). a. Eduard Hitzig b. Gustav Fritsch *c. Pierre Flourens d. David Ferrier e. Wilder Penfield
- 29. What did Flourens do to test the phrenologists' claims?
- @ Learning outcome 1.4: Distinguish science from pseudoscience and recognise the attributes of pseudoscientific thinking. To test the phrenologists' claims, Flourens took an experimental approach to the problem of localisation, using the method of ablation. Rather than wait for natural experiments to occur in the form of accidental brain damage, Flourens removed specific sections of the brain and observed the effects.
- *a. He removed specific sections of the brain and observed the effects.
- b. He did nothing.

© John Wiley & Sons Australia, Ltd 2018

- c. He consulted with other experts in the field to conduct experiments.
- d. He waited for natural experiments to occur in the form of accidental brain damage.
- e. None of the above.
- 30. Sally after spending \$100 on a handwriting analysis package, does not like to think she has thrown away hard-earned money and wasted valuable time. This is an example of _____.
- @ Learning outcome 1.4: Distinguish science from pseudoscience and recognise the attributes of pseudoscientific thinking. Effort justification is the idea that after people expend significant effort, they feel compelled to convince themselves the effort was worthwhile. After spending \$30 on a handwriting analysis package, we don't like to think we've thrown away hard-earned money and wasted valuable time.
- a. fundamental attribution error
- b. self-serving bias
- c. actor observer bias
- *d. effort justification
- e. effort maximisation
- 31. Who developed cognitive dissonance theory?
- @ Learning outcome 1.4: Distinguish science from pseudoscience and recognise the attributes of pseudoscientific thinking.
- *a. Leon Festinger.
- b. Kurt Lewin.
- c. Elliot Aronson.
- d. Stanley Schachter.
- e. Solomon Asch.
- 32. Which among the following is not one of the characteristics of pseudoscience?
- @ Learning outcome 1.4: Distinguish science from pseudoscience and recognise the attributes of pseudoscientific thinking. Pseudoscience is characterised by (a) a false association with true science, (b) a misuse of the rules of evidence by relying excessively on anecdotal data, (c) a lack of specificity that avoids a true test of the theory, and (d) an oversimplification of complex processes.
- a. A false association with true science.
- b. A misuse of the rules of evidence by relying excessively on anecdotal data.
- c. A lack of specificity that avoids a true test of the theory.
- *d. Excessive reliance on objectivity.
- e. An oversimplification of complex processes.
- 33. Individuals giving high accuracy ratings to descriptions of their personality that supposedly are tailored specifically to them but that are, in fact, vague and general enough to apply to a wide range of people is known as
- @ Learning outcome 1.4: Distinguish science from pseudoscience and recognise the attributes of pseudoscientific thinking. Numerous studies have shown that if subjects are given what they think is a valid personality test (but isn't) and are then given a personality description of themselves, filled with a mix of mostly positive traits, they will judge the analysis a good description of what they are like. This occurs even though all the subjects in a Barnum effect study get the same personality description, regardless of how they have filled out the phony personality test!
- a. Generation effect
- b. Self-reference effect
- *c. Barnum effect
- d. Halo effect
- e. Self-Serving effect

- 34. Which among the following is not a goal of research in psychology?
- @ Learning outcome 1.5: Describe the main goals of research in psychology and relate them to research strategies to be encountered later in the text. Scientific research in psychology has four related goals. Researchers hope to develop complete descriptions of behaviours, to make predictions about future behaviour, and to provide reasonable explanations of behaviour. Furthermore, they assume the knowledge derived from their research will be applied to benefit people, either directly or eventually. Each of these goals—description, prediction, explanation, and application—will be elaborated in later chapters of this resource.
- a. Description.
- b. Prediction.
- c. Explanation.
- *d. Observation.
- e. Application.
- 35. Which among the following is the first step in scientific endeavour?
- @ Learning outcome 1.5: Describe the main goals of research in psychology and relate them to research strategies to be encountered later in the text. Providing a clear, accurate description is an obvious yet essential first step in any scientific endeavour; without it, predictions cannot be made and explanations are meaningless.
- a. Explanation.
- b. Application.
- c. Prediction.
- d. Verifiability.
- *e. Description.
- 36. Which of the following research is more useful in making predictions?
- @ Learning outcome 1.5: Describe the main goals of research in psychology and relate them to research strategies to be encountered later in the text. One of the primary strengths of correlational research, as you will learn later on, is that it is useful for making predications.
- a. Survey research.
- b. Qualitative research.
- c. Experimental research.
- *d. Correlational research.
- e. Basic research.
- 37. Which type of research leads to causal conclusion?
- @ Learning outcome 1.5: Describe the main goals of research in psychology and relate them to research strategies to be encountered later in the text. As you will see, research psychologists believe that, within limits, causal conclusions can be drawn from a type of research called experimental research.
- a. Survey research.
- b. Qualitative research.
- *c. Experimental research.
- d. Correlational research.
- e. Basic research.
- 38. A goal of science in which causes of events are sought is known as ______
- @ Learning outcome 1.5: Describe the main goals of research in psychology and relate them to research strategies to be encountered later in the text. The third goal of the experimenter is explanation. To explain a behaviour is to know what caused it.
- *a. Explanation
- b. Application

- c. Prediction
- d. Verifiability
- e. Description
- 39. Who is instrumental in Experimental Analysis of Behaviour?
- @ Learning outcome 1.5: Describe the main goals of research in psychology and relate them to research strategies to be encountered later in the text. If you ask students to name a famous psychologist other than Freud, many will say 'B. F. Skinner', psychology's most famous twentieth-century scientist. His work on operant conditioning created an entire subculture within experimental psychology called the experimental analysis of behaviour.
- a. John B. Watson.
- b. E. L. Thorndike.
- c. Thurstone.
- *d. B. F. Skinner.
- e. Jean Piaget.
- 40. Who is best known for visual cliff studies?
- @ Learning outcome 1.5: Describe the main goals of research in psychology and relate them to research strategies to be encountered later in the text. On June 23, 1992, Eleanor Gibson was awarded the National Medal of Science by American President George H. W. Bush. It is the highest honour a president can confer on a scientist. Gibson, then 82, was honoured for a lifetime of research in developmental psychology, studying topics ranging from how we learn to read to how depth perception develops. She was perhaps best known to undergraduates for her 'visual cliff' studies.
- *a. Eleanor Gibson.
- b. Robert Yerkes.
- c. Clark Hull.
- d. Harry Levin.
- e. Julie Vargas.