

Chapter 2: Introduction to Research

1. True or False? The scientific method is the most commonly used way to generate knowledge in exercise science.

A) True

B) False

Ans: A

2. True or False? Basic research is often used to generate a solution to an immediate problem.

A) True

B) False

Ans: B

3. True or False? Applied research is often used to generate a solution to an immediate problem.

A) True

B) False

Ans: B

4. True or False? The dependent variable often represents a characteristic that is going to be manipulated during a research study.

A) True

B) False

Ans: B

5. True or False? The independent variable often represents data that is collected about a human subject during a research study.

A) True

B) False

Ans: B

6. True or False? Conclusions about the research study are often derived from the independent variable.

A) True

B) False

Ans: B

7. True or False? Validity informs a researcher about how easy it is to replicate the results of a study.

A) True

B) False

Ans: B

8. True or False? Reliability must be demonstrated prior to using an instrument to collect data about a human or animal research subject.

A) True

B) False

Ans: A

9. True or False? The sharing of information is critical in the advancement of knowledge in a field of study.

A) True

B) False

Ans: A

10. True or False? Qualitative research uses a scientific approach designed for the collection and analysis of numerical data typically obtained from subjects through direct testing or questionnaires.

A) True

B) False

Ans: B

11. True or False? Quantitative research uses a scientific approach designed for the collection and analysis of numerical data typically obtained from subjects through direct testing or questionnaires.

A) True

B) False

Ans: A

12. True or False? Translational research is conducted to make the connection between basic research and clinical application.

A) True

B) False

Ans: A

13. True or False? Basic research involves human volunteers that is meant to add to medical knowledge.

A) True

B) False

Ans: B

14. Mixed-methods research uses a combination of quantitative and qualitative approaches in the methodology of the study.

A) True

B) False

Ans: A

15. Primary sources of research include information, reviews, or scholarly journal articles that discuss or evaluate someone else's original research.

A) True

B) False

Ans: B

16. Exclusion criteria are those specific qualities or characteristics that eliminate a subject from participating in a research study.

A) True

B) False

Ans: B

17. Open access is a process that provides free, unrestricted online access to research dissemination.

A) True

B) False

Ans: A

18. Preprint servers are online repositories, containing data or information associated with scholarly manuscripts that have not undergone peer review or been accepted by a published journal.

A) True

B) False

Ans: A

19. Evidence-based practice is used by exercise science professionals to help inform them about basic quantitative research.

A) True

B) False

Ans: B

20. The most commonly used way to generate knowledge in exercise science is by using:

A) the trial-and-error method of discovery.

B) information generated by other academic disciplines.

- C) anecdotal information provided by professional practitioners.
- D) the scientific method of discovery.

Ans: D

21. Research that acquires solutions to an immediate practical problem is called:

- A) basic research.
- B) applied research.
- C) nonscientific research.
- D) scholarly research.

Ans: B

22. _____ is the type of research that combines both cross-sectional and longitudinal research.

- A) Descriptive
- B) Longitudinal
- C) Sequential
- D) Experimental

Ans: C

23. _____ is the type of research that is often conducted for many years at a time.

- A) Descriptive
- B) Longitudinal
- C) Sequential
- D) Experimental

Ans: B

24. Research aimed to discover new and unknown knowledge without regard for any specific application is called:

- A) basic research.
- B) applied research.
- C) translational research.

D) systematic research.

Ans: A

25. The reanalysis of results from previously conducted research studies is referred to as:

A) observational research.

B) historical research.

C) meta-analysis research.

D) systematic research.

Ans: C

26. Using the best information available to inform a question, address a problem, or create a program is called:

A) quantitative research.

B) evidence-based practice.

C) systematic investigation.

D) translational research.

Ans: B

27. A systematic study directed toward increasing knowledge, with the primary aim being a greater understanding of the topic or subject under study is called:

A) longitudinal research.

B) applied research.

C) basic research.

D) translational research.

Ans: C

28. Research that involves the collection and analysis of numerical data typically obtained from subjects through direct testing or questionnaires is called:

A) qualitative research.

B) applied research.

C) translational research.

D) quantitative research.

Ans: C

29. A response, behavior, or outcome that a researcher wishes to predict or explain is called:

A) independent variable.

B) dependent variable.

C) hypothesis.

D) research question.

Ans: B

30. An arrangement whereby the originator of the work grants to the assignee the rights to publish, reproduce, sell, or distribute the material is called:

A) a conflict of interest.

B) financial support.

C) open access.

D) a copyright agreement.

Ans: D