

Scientific Research and Methodology

Scientific Methodology · Answer Key · 20 Questions

1. What are the two main ways of acquiring knowledge mentioned?

- A) Formal and informal methods
- B) Intuition and observation**
- C) Deduction and induction
- D) Empirical and theoretical approaches

2. Which type of knowledge is described as systematic, organized, and documented?

- A) Informal knowledge
- B) Intuitive knowledge
- C) Scientific knowledge**
- D) Everyday knowledge

3. What is a key characteristic of scientific research methodology?

- A) Subjectivity and personal opinion
- B) Emphasis on intuition
- C) Objectivity and empirical evidence**
- D) Ignoring previous research

4. The text mentions 'arguments based on evidence and methodology' as a form of:

- A) Intuition
- B) Informal knowledge
- C) Scientific reasoning**
- D) Personal belief

5. What is the purpose of 'clarification' and 'discovery' in the context of research?

- A) To introduce bias
- B) To reveal facts and phenomena**
- C) To create confusion
- D) To simplify complex issues

6. Which of the following is NOT listed as a form of scientific publication?

- A) Monograph
- B) Article
- C) Conference paper
- D) Personal diary**

7. What does the text suggest is crucial for scientific research?

- A) Random guessing
- B) Ignoring methodology
- C) Systematic approach and correct procedure**
- D) Reliance on personal feelings

8. The term 'verifiable' in relation to knowledge implies:

- A) It is based on opinion
- B) It can be confirmed or proven**
- C) It is always secret
- D) It is purely theoretical

9. What is the role of 'context' in understanding information?

- A) It is irrelevant
- B) It helps in interpretation**
- C) It always leads to misunderstanding
- D) It is only for informal data

10. Which method is described as 'logical, analytical, and rational'?

- A) Intuition
- B) Guesswork
- C) Scientific method**
- D) Emotional response

11. What does 'systematic' knowledge acquisition involve?

- A) Unplanned steps
- B) A planned and organized process**
- C) Random data collection
- D) Only theoretical constructs

12. The text states that scientific knowledge is dependent on:

- A) Personal feelings
- B) Intuition alone
- C) Objective observation and verification**
- D) Unverified assumptions

13. What is the general purpose of scientific research?

- A) To confuse the public
- B) To gain personal fame
- C) To discover objective truths and expand knowledge**
- D) To support unfounded theories

14. Which term refers to the process of making scientific findings available to others?

- A) Concealment
- B) Dissemination**
- C) Abandonment
- D) Secrecy

15. Arguments supported by 'clear facts' and 'methodology' are considered:

- A) Weak
- B) Subjective
- C) Strong and reliable**
- D) Intuitive

16. The text emphasizes that scientific knowledge should be:

- A) Secret
- B) Personal
- C) Verifiable and objective**
- D) Based on tradition

17. What is the significance of 'documentation' in research?

- A) It is optional
- B) It ensures clarity and allows for verification**
- C) It hides the research process
- D) It is only for informal studies

18. Which of the following is an example of a scientific publication mentioned?

- A) A casual conversation
- B) A personal diary
- C) A scientific article**
- D) A rumor

19. The text suggests that scientific knowledge is characterized by its:

- A) Randomness
- B) Lack of structure
- C) Systematic and organized nature**
- D) Dependence on emotion

20. What does 'empirical' knowledge rely on?

- A) Pure imagination
- B) Sensory experience and observation**
- C) Unproven theories
- D) Personal beliefs