MODULE-1

Research Methodology

Introduction, Meaning of Research, Objectives of Research, Motivation in Research, Types of Research, Research Approaches, Significance of Research, Research Methods versus Methodology, Research and Scientific Method, Importance of Knowing How Research is Done, Research Process, Criteria of Good Research, and Problems Encountered by Researchers in India **8 Hours**

1. Meaning of Research

1. What does "research" primarily aim to achieve?
   a) Data collection
   b) Systematic investigation
   c) Random guessing
   d) Trial and error
   Answer: b
2. Which of the following is NOT a characteristic of research?
   a) Objectivity
   b) Repetition
   c) Bias
   d) Precision
   Answer: c
3. The primary purpose of research is to:
   a) Develop new theories
   b) Repeat known experiments
   c) Entertain the public
   d) Copy past studies
   Answer: a
4. Research can best be defined as:
   a) Finding solutions to scientific problems
   b) Gathering data from books

c) Creative and systematic work undertaken to increase knowledge

d) A random collection of information

Answer: c

5. Which of the following is an essential feature of research?

a) Inconsistency

b) Systematic approach

c) Bias in conclusions

d) Personal beliefs

Answer: b

2. Objectives of Research

6. One of the primary objectives of research is to:

a) Criticize previous work

b) Create new knowledge

c) Generate profits

d) Reduce effort

Answer: b

7. Which of the following is NOT a research objective?

a) To verify existing knowledge

b) To predict future phenomena

c) To solve specific problems

d) To avoid systematic work

Answer: d

8. What is the ultimate aim of applied research?

a) Develop new theories

b) Solve specific practical problems

c) Confirm existing knowledge

d) Analyze data randomly

Answer: b

9. An important objective of research in science is to:

a) Discover general laws

b) Study past researchers

c) Avoid new challenges

d) Depend solely on intuition

Answer: a

10. Research objectives must be:

a) Broad and vague

b) Specific and clear

c) Irrelevant to the problem

d) Based solely on assumptions

Answer: b

3. Motivation in Research

11. Which of the following is a common motivation for researchers?

a) Personal curiosity

b) Monetary benefits

c) Fame

d) Random exploration

Answer: a

12. Intrinsic motivation in research is driven by:

a) Desire for rewards

b) Curiosity and passion

c) External pressure

d) Avoiding responsibilities

Answer: b

13. What is NOT a motivational factor in research?

a) Desire to learn

b) Fear of failure

c) Intellectual curiosity

d) Solving social problems

Answer: b

14. Researchers are motivated by:

a) Desire to contribute to society

b) Short-term fame

c) Avoiding challenges

d) Copying other researchers

Answer: a

15. A researcher driven by societal challenges is motivated by:

a) Extrinsic rewards

b) Internal curiosity

c) Ethical responsibility

d) External competition

Answer: c

4. Types of Research

16. Basic research aims to:

a) Solve immediate problems

b) Develop fundamental knowledge

c) Apply existing theories

d) Avoid complex issues

Answer: b

17. Applied research focuses on:

a) Expanding theoretical frameworks

b) Practical problem-solving

c) Philosophical debates

d) General assumptions

Answer: b

18. Which type of research is aimed at future predictions?

a) Exploratory research

b) Descriptive research

c) Predictive research

d) Basic research

Answer: c

19. Which of the following is NOT a type of research?

a) Experimental research

b) Random research

c) Historical research

d) Analytical research

Answer: b

20. The purpose of qualitative research is to:

a) Understand behaviors and experiences

b) Focus on numerical data

c) Create financial models

d) Avoid subjective interpretations

Answer: a

5. Research Approaches

21. The quantitative approach focuses on:

a) Words and narratives

b) Numerical data and statistics

c) Subjective interpretations

d) Personal opinions

Answer: b

22. A mixed-method approach combines:

a) Experimental and observational research

b) Qualitative and quantitative approaches

c) Primary and secondary data

d) Theoretical and empirical frameworks

Answer: b

23. Qualitative research relies on:

a) Structured surveys

b) Interviews and observations

c) Statistical analysis

d) Laboratory experiments

Answer: b

24. Which of the following is a key feature of qualitative research?

a) Measurement of variables

b) Statistical analysis

c) Understanding meanings and experiences

d) Numerical predictions

Answer: c

25. Quantitative research is most suitable for:

a) Exploring subjective feelings

b) Testing hypotheses

c) Understanding narratives

d) Analyzing open-ended data

Answer: b

6. Significance of Research

26. Research helps in:

a) Avoiding decision-making

b) Developing critical thinking

c) Increasing personal opinions

d) Limiting knowledge

Answer: b

27. The significance of research lies in:

a) Validating assumptions

b) Offering theoretical frameworks

c) Improving policies and practices

d) All of the above

Answer: d

28. Research contributes to society by:

a) Avoiding challenges

b) Providing evidence-based solutions

c) Ignoring ethical principles

d) Replicating past mistakes

Answer: b

29. Why is research important for decision-making?

a) It minimizes risks

b) It ensures random outcomes

c) It avoids systematic investigation

d) It ignores past data

Answer: a

30. Research plays a critical role in:

a) Widening gaps in knowledge

b) Enhancing societal progress

c) Avoiding social challenges

d) Focusing only on financial gains

Answer: b

7. Research Methods versus Methodology

31. What is the difference between research methods and methodology?

a) Methods focus on strategy; methodology focuses on tools

b) Methods are techniques; methodology is the study of methods

c) Methods and methodology are the same

d) Methodology refers to data collection only

Answer: b

32. Which of the following is an example of a research method?

a) Interview

b) Philosophy of research

c) Justification of methods

d) Study design framework

Answer: a

33. Methodology explains:

a) The reasons behind the choice of methods

b) Statistical analysis only

c) Field-specific jargon

d) How to summarize data

Answer: a

34. Research methods include:

a) Surveys and experiments

b) Theories and concepts

c) Ethical frameworks

d) Philosophical debates

Answer: a

35. Which statement is true about methodology?

a) It refers only to data collection techniques

b) It focuses on the philosophical basis of methods

c) It is irrelevant to research

d) It excludes research objectives

Answer: b

8. Research and Scientific Method

36. The scientific method includes which of the following steps?

a) Formulating hypotheses

b) Conducting random trials

c) Collecting opinions

d) Ignoring evidence

Answer: a

37. The scientific method is based on:

a) Logical reasoning and evidence

b) Assumptions without testing

c) Personal opinions

d) Guesswork

Answer: a

38. Which of the following is NOT a part of the scientific method?

a) Observation

b) Experimentation

c) Bias inclusion

d) Data analysis

Answer: c

39. Scientific research emphasizes:

a) Empirical and objective investigation

b) Subjective interpretations

c) Avoidance of theories

d) Opinion-based conclusions

Answer: a

40. Why is the scientific method important in research?

a) It ensures logical and consistent results

b) It discourages systematic analysis

c) It focuses only on assumptions

d) It allows for biased conclusions

Answer: a

9. Importance of Knowing How Research is Done

41. Why is it important to understand the research process?

a) To ensure systematic and valid results

b) To conduct random experiments

c) To avoid ethical practices

d) To reduce effort

Answer: a

42. Knowledge of the research process helps researchers:

a) Develop high-quality work

b) Ignore potential problems

c) Rely solely on intuition

d) Avoid systematic planning

Answer: a

43. Understanding research methods ensures:

a) Proper application of techniques

b) Avoidance of practical work

c) Increased research complexity

d) Elimination of systematic approaches

Answer: a

44. Lack of understanding of research methods can lead to:

a) Poor-quality outcomes

b) Ethical integrity

c) Accurate data

d) Innovative solutions

Answer: a

45. Researchers who know the research process can:

a) Avoid errors

b) Produce valid conclusions

c) Ensure replicable results

d) All of the above

Answer: d

10. Research Process

46. The first step in the research process is:

a) Data collection

b) Identifying the problem

c) Analysis

d) Report writing

Answer: b

47. Why is hypothesis formulation crucial in the research process?

a) It provides a testable statement

b) It eliminates research objectives

c) It avoids theoretical discussions

d) It replaces analysis

Answer: a

48. Which is the last step of the research process?

a) Data collection

b) Literature review

c) Report writing and presentation

d) Problem identification

Answer: c

49. Data analysis involves:

a) Interpreting collected data

b) Identifying problems

c) Writing conclusions without facts

d) Avoiding statistical tools

Answer: a

50. The research process should be:

a) Linear and systematic

b) Random and disorganized

c) Unstructured

d) Biased

Answer: a

11. Criteria of Good Research

51. Which of the following is NOT a criterion of good research?

a) Objectivity

b) Bias

c) Accuracy

d) Validity

Answer: b

52. Good research should be:

a) Logical, systematic, and reproducible

b) Biased and incomplete

c) Based on assumptions only

d) Avoiding ethical principles

Answer: a

53. Reliability in research refers to:

a) Consistency of results

b) Personal opinions

c) Randomness of observations

d) Lack of precision

Answer: a

54. Validity in research ensures:

a) The research measures what it intends to measure

b) Repeated errors in data

c) Avoidance of systematic frameworks

d) Use of outdated tools

Answer: a

55. Good research is judged by:

a) Its contribution to knowledge

b) Random guesses

c) Subjective interpretations

d) Personal biases

Answer: a

12. Problems Encountered by Researchers in India

56. Which is a common problem faced by researchers in India?

a) Lack of funding

b) Abundant resources

c) Excessive support

d) Minimal ethical issues

Answer: a

57. Research in India is often hindered by:

a) Lack of proper guidance

b) Overly structured approaches

c) Excessive government support

d) High-quality infrastructure

Answer: a

58. What is one of the major challenges for Indian researchers?

a) Lack of research facilities

b) Too much time availability

c) Lack of societal challenges

d) Excessive international collaboration

Answer: a

59. Ethical issues in Indian research arise due to:

a) Lack of awareness about ethical practices

b) Strict ethical norms

c) Limited ethical frameworks

d) Avoidance of ethical considerations

Answer: a

60. How can Indian researchers overcome challenges?

a) Enhance collaboration and funding opportunities

b) Avoid systematic research

c) Focus only on theoretical aspects

d) Ignore ethical responsibilities

Answer: a

**********MODULE-1**********