

Research Techniques in Education Practice Test 6

60 original multiple-choice questions for teacher test preparation (FPSC / FGEI / PPSC style). Choose one answer for each question. The full answer key is on the last page — worked explanations for every question are free on the test page at QuaidianPoint.com.

Name: _____ Class: _____ Score: _____ / 60

Meaning, Purpose and Types of Research

Q1. Which of the following activities counts as educational research rather than routine school work?

- (A) Marking weekly class tests and recording the marks
- (B) Preparing the annual school timetable
- (C) Systematically investigating why absenteeism is higher in one grade than in others
- (D) Announcing examination dates on the notice board

Q2. Applied research differs from basic research mainly in that applied research:

- (A) Aims at solving a specific practical problem in a real setting
- (B) Never uses data or evidence
- (C) Is always done without a research question
- (D) Deals only with ancient history

Q3. A teacher who studies her own classroom, tries a new grouping strategy, observes the result and adjusts it, is conducting:

- (A) Historical research
- (B) Survey research
- (C) Philosophical research
- (D) Action research

Q4. Which type of research is best suited to answering the question "What are the present attitudes of parents towards homework?"

- (A) Experimental research
- (B) Descriptive survey research
- (C) Historical research
- (D) Laboratory research

Q5. Quantitative research is characterised mainly by:

- (A) Collecting only personal stories with no counting
- (B) Avoiding any form of measurement
- (C) Studying a single case in great narrative depth
- (D) Collecting numerical data and analysing it statistically

Q6. Qualitative research is most appropriate when the researcher wants to:

- (A) Test a hypothesis with a large random sample
- (B) Measure the exact difference between two group means
- (C) Understand experiences, meanings and processes in depth from participants' perspectives
- (D) Rank schools by examination results alone

Q7. Research is most valuable for improving education when its findings are:

- (A) Based on systematic evidence and reported clearly enough for others to use and check
- (B) Based on one teacher's personal opinion
- (C) Kept private by the researcher
- (D) Published without any method described

Q8. A study that traces how the curriculum for primary science has changed over three decades is an example of:

- (A) Experimental research
- (B) Historical research
- (C) Correlational research
- (D) Action research

Q9. Which statement about scientific research is correct?

- (A) Its methods are kept secret from other researchers
- (B) Its conclusions are accepted without any evidence
- (C) Its findings depend only on the researcher's reputation
- (D) Its procedures are reported clearly enough for others to check or repeat the work

Q10. A researcher who develops a new theory of classroom discipline from general principles, without collecting new school data, is mainly doing:

- (A) Basic or theoretical research
- (B) Survey research
- (C) Experimental research
- (D) Case study research

Research Process and Problem Identification

Q11. The research process normally moves from problem identification to:

- (A) Writing conclusions before any data are gathered
- (B) Reviewing literature, designing the study, collecting and analysing data, then reporting
- (C) Publishing results, then selecting a sample
- (D) Analysing data, then formulating the problem

Q12. Which of the following problems is too broad for a single small-scale study?

- (A) The effect of storybooks on the vocabulary of Grade 3 pupils in one school
- (B) Teachers' use of questioning in two science classes
- (C) Pupils' homework habits in one district
- (D) The problems of education in the whole world

Q13. Personal classroom experience, previous studies, theory and discussion with experts are all recognised as:

- (A) Statistical tests
- (B) Sampling frames
- (C) Sources of research problems
- (D) Types of research instruments

Q14. Research questions differ from research objectives in that research questions:

- (A) Are broader and more general than research objectives
- (B) Are phrased as questions the study will answer, while objectives state intended outcomes
- (C) Are not answered by the study, while objectives are answered directly
- (D) Come only after data have been collected and analysed

Q15. The significance of a study explains:

- (A) Who may benefit from the findings and how
- (B) The researcher's salary during the study
- (C) The number of pages in the thesis
- (D) The names of all participants

Q16. Which of the following is a limitation, rather than a delimitation, of a study?

- (A) The researcher chose to study only Grade 10 pupils
- (B) The researcher chose one district for convenience
- (C) Some questionnaires were not returned, reducing the achieved sample
- (D) The study was limited to public schools by design

Q17. Before collecting data, a researcher should normally:

- (A) Write the conclusions
- (B) Publish the findings
- (C) Destroy the research proposal
- (D) Pilot-test the instruments and finalise the design and sample

Q18. A study that first states "Does remedial teaching improve spelling?" and then tests it is following which step?

- (A) Sampling
- (B) Formulating a research question and hypothesis
- (C) Referencing
- (D) Data coding

Q19. Operationally defining a variable means:

- (A) Explaining how it will be measured or observed in this study
- (B) Giving its dictionary meaning only
- (C) Keeping it secret from readers
- (D) Changing it during data analysis

Q20. Which sequence correctly places data analysis in the research process?

- (A) Problem, literature, design, data collection, analysis, interpretation, report
- (B) Report, problem, design, analysis, collection
- (C) Problem, analysis, literature, collection, report
- (D) Collection, problem, report, analysis, literature

Variables and Hypotheses

Q21. In a study of whether class size affects pupils' participation, class size is the:

- (A) Dependent variable
- (B) Control variable
- (C) Intervening variable
- (D) Independent variable

Q22. In the same study, pupils' participation is the:

- (A) Dependent variable
- (B) Independent variable
- (C) Extraneous variable
- (D) Sampling variable

Q23. A researcher compares two schools but one school also has better library facilities, which may affect reading scores. Library facilities act here as a/an:

- (A) Dependent variable
- (B) Hypothesis
- (C) Extraneous variable
- (D) Research objective

Q24. When a researcher uses the same test, the same instructions and the same time limit for all groups, these constants are examples of:

- (A) Dependent variables
- (B) Control variables
- (C) Intervening variables
- (D) Hypotheses

Q25. Interest in a subject, which is raised by a new method and in turn raises achievement, is best described as a/an:

- (A) Dependent variable
- (B) Independent variable
- (C) Sampling frame
- (D) Intervening variable

Q26. Which of the following is a testable hypothesis?

- (A) Good teaching is a blessing for society
- (B) Pupils who receive weekly quizzes will score higher on the final test than pupils who do not
- (C) Education should be valued by everyone
- (D) Teachers work very hard in schools

Q27. "There is no significant relationship between teachers' experience and pupils' science scores" is a:

- (A) Null hypothesis
- (B) Directional hypothesis
- (C) Research instrument
- (D) Sampling technique

Q28. "Female students will score significantly higher than male students in English" is a:

- (A) Null hypothesis
- (B) Non-directional hypothesis
- (C) Directional alternative hypothesis
- (D) Research objective

Q29. Which hypothesis does NOT state a direction?

- (A) Group A will outperform Group B
- (B) There is a significant difference between the attitudes of trained and untrained teachers
- (C) More revision will lead to higher scores
- (D) Homework will improve achievement more than no homework

Q30. A hypothesis is rejected or retained on the basis of:

- (A) The researcher's personal preference
- (B) The length of the literature review
- (C) The number of references cited
- (D) Evidence from the data analysed in the study

Literature Review and Sources

Q31. A literature review helps a researcher to refine the research problem by:

- (A) Showing how earlier studies defined variables, what they found, and what remains unanswered
- (B) Replacing data collection entirely
- (C) Providing ready-made conclusions for the new study
- (D) Removing the need for a sample

Q32. A handbook that explains research methods in general, rather than reporting one study, is best described as:

- (A) A primary source
- (B) Raw scores collected by the researcher
- (C) A secondary source
- (D) An interview transcript from the present study

Q33. Conference proceedings and research journals are valued as literature sources mainly because they:

- (A) Are always free of charge
- (B) Report recent, peer-reviewed research findings in the field
- (C) Contain no research methods at all
- (D) Never require citation

Q34. When two reviewed studies reach opposite conclusions, a good literature review should:

- (A) Hide the study that disagrees with the researcher
- (B) Report only the older study
- (C) Quote both without any comment
- (D) Compare their methods and samples and discuss possible reasons for the difference

Q35. The main reason for citing sources in a literature review is to:

- (A) Make the chapter longer
- (B) Impress the reader with difficult words
- (C) Fill the reference list with famous names
- (D) Give credit to original authors and allow readers to verify claims

Q36. A researcher who finds that most studies on homework were done with secondary pupils, but very few with primary pupils, has identified a:

- (A) Sampling error
- (B) Statistical test
- (C) Gap in the literature
- (D) Research instrument

Q37. Which source should a researcher treat most cautiously in a literature review?

- (A) A peer-reviewed journal article
- (B) An anonymous online post with no method, data or references
- (C) A published doctoral thesis
- (D) A government education report with stated methods

Q38. A conceptual framework differs from a simple list of studies because it:

- (A) Lists authors in alphabetical order only
- (B) Counts the number of pages reviewed
- (C) Copies abstracts without analysis
- (D) Shows how key concepts and variables are thought to relate to each other

Q39. When reviewing literature, "primary" and "secondary" describe:

- (A) The age of the researcher
- (B) The size of the sample
- (C) Whether the source is the original report or a later summary of it
- (D) Whether the study was funded

Q40. A good literature review ends by:

- (A) Summarising what is known, what is missing, and how the present study will address the gap
- (B) Presenting the new study's data tables
- (C) Listing the researcher's qualifications
- (D) Repeating the first paragraph word for word

Sampling: Population, Probability and Non-Probability Methods

Q41. If a researcher wants to study all Grade 10 science teachers in Multan district, that group is the:

- (A) Sample
- (B) Population
- (C) Sampling frame
- (D) Control group

Q42. Studying a sample instead of the whole population is usually preferred because it:

- (A) Always gives exactly the same result as a census
- (B) Removes all possibility of error
- (C) Requires no planning at all
- (D) Saves time and cost while still allowing sound conclusions if done properly

Q43. Which sampling method gives every member of the population an equal chance of selection?

- (A) Simple random sampling
- (B) Convenience sampling
- (C) Purposive sampling
- (D) Quota sampling

Q44. A researcher wants fair representation of boys and girls and of each grade, so she divides pupils by gender and grade and samples randomly within each part. This is:

- (A) Cluster sampling
- (B) Snowball sampling
- (C) Stratified random sampling
- (D) Convenience sampling

Q45. A researcher randomly picks 12 villages from a district and interviews all primary teachers in those villages. This is:

- (A) Systematic sampling
- (B) Cluster sampling
- (C) Stratified sampling
- (D) Simple random sampling of teachers

Q46. Using a random-number table to choose participants from a complete list is an example of:

- (A) Simple random sampling
- (B) Purposive sampling
- (C) Quota sampling
- (D) Snowball sampling

Q47. A researcher with a list of 600 students selects a random starting point and then every 15th student. This method is:

- (A) Cluster sampling
- (B) Stratified sampling
- (C) Systematic sampling
- (D) Purposive sampling

Q48. Which sampling method relies on the researcher's judgement to choose participants who are most informative for the study purpose?

- (A) Purposive sampling
- (B) Simple random sampling
- (C) Systematic sampling
- (D) Cluster sampling

Q49. A researcher collects data from teachers attending a training workshop because they are already gathered in one place. This is:

- (A) Stratified sampling
- (B) Convenience sampling
- (C) Cluster sampling
- (D) Systematic sampling

Q50. In quota sampling, what is fixed in advance?

- (A) The exact names of all participants by lottery
- (B) The statistical test to be used
- (C) The research hypothesis
- (D) The number of participants required from each defined category

Q51. Snowball sampling works by:

- (A) Drawing every 10th name from a register
- (B) Dividing the population into strata
- (C) Selecting whole schools at random
- (D) Asking early participants to recommend further participants

Q52. A major weakness of non-probability sampling is that:

- (A) It always requires a complete population list
- (B) Findings may not be safely generalised to the whole population
- (C) It is always more expensive than random sampling
- (D) It can never be used in qualitative research

Tools, Designs, Statistics, Action Research, Ethics and Report Writing

Q53. Observation as a research tool is especially useful when the researcher wants to study:

- (A) Historical documents only
- (B) What people actually do, rather than what they say they do
- (C) Statistical formulas in textbooks
- (D) The contents of a library catalogue

Q54. A rating scale is best used to:

- (A) Select a random sample
- (B) Test a hypothesis statistically
- (C) Record a judgement about the degree of a trait, such as teaching quality or attitude strength
- (D) Write the thesis introduction

Q55. Data collected directly by the researcher for the present study, such as fresh questionnaire responses, are called:

- (A) Secondary data
- (B) Historical data
- (C) Primary data
- (D) Published data

Q56. A study that examines an event after it has already happened, without manipulating variables, is best described as:

- (A) Experimental research
- (B) Survey research
- (C) Action research
- (D) Ex post facto research

Q57. A researcher follows one school's improvement programme over two years, collecting interviews, documents and observations. This intensive study is best called a:

- (A) Survey design
- (B) Experimental design
- (C) Case study design
- (D) Correlational design

Q58. Which statement about the mean and the median is correct?

- (A) The mean uses all scores, while the median is the middle score and is less affected by extreme values
- (B) The median uses all scores, while the mean is the middle score
- (C) Both are used only with categories that have no order
- (D) Neither can be found from numerical scores

Q59. In a normal distribution, the percentage of scores above the mean is:

- (A) 34 percent
- (B) 68 percent
- (C) 50 percent
- (D) 95 percent

Q60. Which statement about a research report's references is correct?

- (A) Every source cited in the text should appear in the reference list, in full and accurate detail
- (B) Only famous authors need to be listed
- (C) References may be invented if a source is hard to find
- (D) The list should include books the researcher never used

Answer Key

Q1: C	Q11: B	Q21: D	Q31: A	Q41: B	Q51: D
Q2: A	Q12: D	Q22: A	Q32: C	Q42: D	Q52: B
Q3: D	Q13: C	Q23: C	Q33: B	Q43: A	Q53: B
Q4: B	Q14: B	Q24: B	Q34: D	Q44: C	Q54: C
Q5: D	Q15: A	Q25: D	Q35: D	Q45: B	Q55: C
Q6: C	Q16: C	Q26: B	Q36: C	Q46: A	Q56: D
Q7: A	Q17: D	Q27: A	Q37: B	Q47: C	Q57: C
Q8: B	Q18: B	Q28: C	Q38: D	Q48: A	Q58: A
Q9: D	Q19: A	Q29: B	Q39: C	Q49: B	Q59: C

Q10: A	Q20: A	Q30: D	Q40: A	Q50: D	Q60: A
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Worked explanations for all 60 questions:

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