Research Techniques in Education Practice Test 10

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

Section 1: Meaning, Purpose and Types of Research

Q1. Research ethics require a researcher to:

(A) Protect participants, obtain consent and report findings honestly
(B) Publish participants' names without permission
(C) Hide the method from readers
(D) Report only the results that favour the hypothesis

Q2. Which is an example of applied research?

(A) Developing a general theory of learning with no immediate application
(B) Tracing the history of a university over a century
(C) Testing which remedial method best helps struggling readers in a district
(D) Describing one student's life story in full detail

Q3. A university scholar studies how children form scientific concepts, mainly to build theory rather than to solve a school's immediate problem. This is:

(A) Action research
(B) Survey research
(C) Historical research
(D) Basic research

Q4. Action research is most often conducted by:

(A) External examiners marking final papers
(B) Teachers and other practitioners studying their own classrooms
(C) Publishers preparing new textbooks
(D) Inspectors carrying out routine school visits

Q5. An abstract of a research report should mainly:

(A) Present detailed data tables for every variable measured
(B) Briefly summarise the purpose, method, main findings and conclusions
(C) Discuss every study cited in the literature review in full
(D) Give recommendations only, without describing the method or findings

Q6. A research problem that is too broad should be:

(A) Narrowed to a specific, manageable question that can actually be studied
(B) Left broad so that every possible finding can be claimed
(C) Replaced by a list of textbooks on the subject
(D) Studied without any objectives or plan

Q7. The delimitations of a study are mainly concerned with:

(A) The full history of the research topic
(B) Results already found in other countries
(C) The researcher's personal biography
(D) The scope, population and setting the researcher deliberately limits the study to

Q8. To protect participants' confidentiality, a researcher should:

(A) Publish interview transcripts with real names attached
(B) Leave identifiable questionnaires in a shared staff room
(C) Store identifiable data securely and report findings without linking them to named individuals
(D) Share participants' contact details with other researchers without permission

Q9. Informed consent should normally be obtained:

(A) After the data have already been published
(B) Only from participants who ask about the study
(C) Without explaining any risks, to avoid worrying participants
(D) Before data collection, after explaining the purpose, procedures and risks, with participation voluntary

Section 2: Research Problem, Variables and Hypotheses

Q10. A researcher compares two methods of teaching grammar and measures students' grammar scores. The teaching method is the:

(A) Dependent variable
(B) Independent variable
(C) Intervening variable
(D) Sampling unit

Q11. In the grammar study above, the teaching method given to each group is the:

(A) Independent variable, because it is the factor varied
(B) Control variable, because it is held constant
(C) Outcome measured at the end
(D) Population from which the sample was drawn

Q12. A student's interest in a subject comes between the teaching method used and the pupils' final achievement, without being directly measured. This is an example of a(n):

(A) Dependent variable
(B) Independent variable
(C) Intervening variable
(D) Research objective

Q13. A thesis or dissertation normally follows which broad order?

(A) Results, then introduction, then literature review
(B) References, then methodology, then findings
(C) Introduction, literature review, methodology, results and discussion, conclusions and references
(D) Conclusions, then data collection, then problem statement

Q14. A statement that asserts no relationship between two variables is called a:

(A) Directional hypothesis
(B) Research question
(C) Sampling plan
(D) Null hypothesis

Q15. The hypothesis "There is a significant difference in achievement between students taught by activity method and those taught by lecture method" is:

(A) A null hypothesis
(B) A non-directional alternative hypothesis
(C) A statement of the sampling plan
(D) A conclusion of the study

Q16. A directional hypothesis is one that:

(A) Predicts the direction of a difference or relationship, such as higher or lower
(B) States that no difference exists between groups
(C) Describes the sample without making any prediction
(D) Is written only after the data have been analysed

Q17. A researcher should formulate hypotheses:

(A) Before collecting data, so that the study has a clear focus to test
(B) After writing the conclusions, to match whatever was found
(C) Only when the results turn out to be significant
(D) Without reference to the research problem

Q18. A conceptual definition differs from an operational definition mainly because a conceptual definition:

(A) States how a variable will be measured in the study
(B) Explains what a variable means in theory, without saying how it will be measured
(C) Is kept secret from the participants
(D) Changes its meaning during data analysis

Section 3: Literature Review and Sampling

Q19. In a literature review, studies are usually organised mainly by:

(A) The age of the authors who wrote them
(B) The length of each study
(C) Themes, questions or findings relevant to the present study
(D) The price of the journals they appeared in

Q20. When a literature review cites only secondary sources, the main risk is that:

(A) The review will be too short to publish
(B) The review will contain no references at all
(C) The researcher will have to collect new data
(D) Second-hand errors or outdated claims may be repeated without checking the originals

Q21. The sample of a study is:

(A) The entire population the researcher wishes to study
(B) The smaller group actually selected from the population for study
(C) The statistical test used to analyse the data
(D) The list of references at the end of the report

Q22. A researcher uses a lottery to draw names from a complete class list. This method is best described as:

(A) Purposive sampling of typical cases
(B) Quota sampling with fixed numbers
(C) Convenience sampling of whoever is available
(D) Simple random sampling

Q23. A researcher divides teachers into primary, middle and secondary strata and samples randomly within each. This is:

(A) Stratified random sampling
(B) Convenience sampling
(C) Snowball sampling
(D) Quota sampling

Q24. Cluster sampling involves:

(A) Selecting only expert informants by judgement
(B) Picking every tenth name from a list
(C) Randomly selecting intact groups, such as whole classes, and studying all members within them
(D) Filling fixed numbers from each subgroup without random selection

Q25. Systematic sampling is carried out by:

(A) Selecting every kth individual from a list after a random start
(B) Choosing only participants who are easiest to reach
(C) Asking participants to recommend further participants
(D) Hand-picking cases that fit the researcher's purpose

Q26. A researcher studying school leadership interviews only principals who have introduced a successful reform. This is:

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

Q27. Convenience sampling is characterised by selecting participants who are:

(A) Randomly drawn from a complete population list
(B) Readily available and easy for the researcher to reach
(C) Recommended by other participants
(D) Chosen to fill a set quota in each subgroup

Q28. Snowball sampling begins with a few participants who then:

(A) Are replaced by a random sample from the population
(B) Select the research tools for the study
(C) Refer the researcher to other people who meet the study criteria
(D) Form fixed quotas for each subgroup

Q29. A researcher needs 20 male and 20 female teachers but picks whoever is available until each number is reached. This is:

(A) Simple random sampling
(B) Cluster sampling
(C) Systematic sampling
(D) Quota sampling

Q30. Action research is most clearly different from traditional research because in action research:

(A) The practitioner studies and improves his or her own practice
(B) No data of any kind are collected
(C) Results must apply to every school in the country
(D) The researcher never reflects on the findings

Section 4: Research Tools, Data and Designs

Q31. An achievement test as a research tool is mainly used to measure:

(A) A teacher's attitude toward a new syllabus
(B) A student's personality traits
(C) What a student has learned in a subject area
(D) A parent's opinion of school management

Q32. The main advantage of asking every respondent the same questions in the same order is that it:

(A) Lets the conversation wander wherever the respondent wishes
(B) Makes answers comparable across respondents
(C) Removes the need to record any answers
(D) Works only when questions are sent by post

Q33. Participant observation differs from non-participant observation because the observer:

(A) Records behaviour from outside the group
(B) Uses a questionnaire instead of watching
(C) Interviews participants after the lesson only
(D) Joins the group and takes part in its activities while observing

Q34. A questionnaire with closed-ended questions is advantageous because it:

(A) Produces answers that are easy to code, compare and analyse
(B) Allows unlimited free expression in every answer
(C) Requires no planning of response options
(D) Guarantees that every respondent understands every question

Q35. Quantitative data are best described as data that are:

(A) Expressed only in words describing feelings
(B) Numerical and capable of being counted, measured or analysed statistically
(C) Collected only from historical documents
(D) Based solely on a single case study

Q36. Secondary data differ from primary data in that secondary data:

(A) Are collected by the researcher for the present study
(B) Are gathered through a new experiment
(C) Already exist, having been collected earlier by someone else
(D) Can only be obtained through interviews

Q37. A true experimental design must include:

(A) Manipulation of a treatment, a comparison group and random assignment
(B) Study of past documents only
(C) A survey of opinions at a single point in time
(D) In-depth study of one case without comparison

Q38. A researcher uses two existing classes as experimental and control groups because random assignment is not possible. This is a:

(A) True experiment
(B) Survey design
(C) Case study
(D) Quasi-experimental design

Q39. A case study of one struggling school would be most appropriate to:

(A) Estimate the average score of all schools in a province
(B) Test a treatment with randomly assigned groups
(C) Understand that school's problems, practices and context in depth
(D) Survey opinions across thousands of teachers

Q40. Ex post facto research starts with:

(A) A new treatment introduced by the researcher
(B) An outcome that has already occurred, then looks back for possible causes
(C) Random assignment to experimental groups
(D) A questionnaire about future intentions only

Q41. Correlational research can show that two variables are related, but it cannot by itself show that:

(A) The variables vary together
(B) The relationship is strong or weak
(C) The relationship is positive or negative
(D) One variable causes the other

Q42. Historical research would most likely use which source?

(A) Old school registers, minutes and policy documents
(B) A new achievement test administered today
(C) A questionnaire given to current students
(D) An experiment conducted in a present-day classroom

Section 5: Descriptive and Inferential Statistics Basics

Q43. The mean is most affected by:

(A) The most frequent score
(B) The middle score in an ordered list
(C) Extreme scores, because every score contributes to the total
(D) The number of categories in a table

Q44. For the scores 3, 6, 8, 10, 15 and 20, the median is:

(A) 8
(B) 9
(C) 10
(D) 12

Q45. A distribution with scores 2, 4, 4, 7, 9 and 12 has a mode of:

(A) 2
(B) 7
(C) 4
(D) 6

Q46. If two classes have the same mean score but one has a much larger standard deviation, that class has:

(A) Fewer students than the other class
(B) Scores more widely spread around the mean
(C) A higher most frequent score
(D) A lower median score in every case

Q47. A correlation coefficient of 0.00 between two variables indicates:

(A) No linear relationship between the variables
(B) A perfect positive relationship
(C) A perfect negative relationship
(D) That one variable causes the other

Q48. Which task belongs to inferential statistics rather than descriptive statistics?

(A) Drawing a bar chart of the sample scores
(B) Calculating the percentage of students who passed
(C) Reporting the mean score of the class studied
(D) Testing whether a sample difference is likely to hold in the population

Q49. A researcher wants to compare the mean scores of a treatment group and a control group. The most suitable basic test is a:

(A) Chi-square test on category frequencies
(B) t-test on the two group means
(C) Test of the mode alone
(D) Test of the sample size alone

Q50. A chi-square test would be suitable to examine whether:

(A) Two group means differ significantly
(B) Two variables are correlated in a linear way
(C) Scores are spread widely around the mean
(D) Observed frequencies in categories differ from expected frequencies

Q51. A correlation of +0.91 is best described as:

(A) Weak and negative
(B) Moderate and negative
(C) Very strong and positive
(D) Unrelated to either variable

Q52. Descriptive statistics include:

(A) Means, medians, percentages and graphs that summarise collected data
(B) Hypothesis tests about an unstudied population
(C) Estimates of sampling error for generalisation
(D) Decisions about statistical significance at a set level

Q53. If a result is significant at the 0.01 level, it means the probability that the result arose by chance is:

(A) 1 percent or less
(B) 10 percent or more
(C) Exactly 50 percent
(D) Zero in every possible replication

Q54. In a common author-date referencing style, an in-text citation normally gives the:

(A) Full address of the publisher
(B) Title of the journal only
(C) Author's surname and the year of publication
(D) Page numbers of the entire book

Section 6: Action Research Cycle, Ethics, Report Writing and Referencing

Q55. The first step in an action research cycle is normally to:

(A) Observe a colleague's lesson without any focus or question in mind
(B) Implement a ready-made solution before examining the problem
(C) Review all available literature before identifying any practical problem
(D) Identify a practical problem in one's own practice and plan an action

Q56. During the observation stage of action research, the practitioner should:

(A) Ignore any evidence that contradicts the original plan
(B) Systematically record what happens when the planned action is carried out
(C) Stop the cycle and write conclusions immediately
(D) Change the problem to fit the results obtained

Q57. A researcher reports a result that contradicts the hypothesis, rather than hiding it. This practice best reflects:

(A) Sampling error
(B) Piloting a questionnaire
(C) Honesty and objectivity in reporting
(D) Generalisation to a population

Q58. Anonymity in research means that:

(A) Even the researcher cannot link responses to particular participants
(B) Participants' names are published with their answers
(C) Raw data are shared openly with the public
(D) Participants are told the results before data collection

Q59. Which action counts as plagiarism?

(A) Summarising a source in one's own words with a citation
(B) Copying paragraphs from a thesis into a report without acknowledgement
(C) Quoting a short passage with quotation marks and a citation
(D) Listing a source in the references after citing it in the text

Q60. In a reference list, entries are normally:

(A) Listed in the order the researcher happened to read them

(B) Grouped only by the year of publication

(C) Mixed with the researcher's personal notes

(D) Arranged alphabetically by the author's surname, including only sources cited in the text

Answer Key

Q1: A	Q11: A	Q21: B	Q31: C	Q41: D	Q51: C
Q2: C	Q12: C	Q22: D	Q32: B	Q42: A	Q52: A
Q3: D	Q13: C	Q23: A	Q33: D	Q43: C	Q53: A
Q4: B	Q14: D	Q24: C	Q34: A	Q44: B	Q54: C
Q5: B	Q15: B	Q25: A	Q35: B	Q45: C	Q55: D
Q6: A	Q16: A	Q26: D	Q36: C	Q46: B	Q56: B
Q7: D	Q17: A	Q27: B	Q37: A	Q47: A	Q57: C
Q8: C	Q18: B	Q28: C	Q38: D	Q48: D	Q58: A
Q9: D	Q19: C	Q29: D	Q39: C	Q49: B	Q59: B
Q10: B	Q20: D	Q30: A	Q40: B	Q50: D	Q60: D

Worked explanations for all 60 questions:
quaidianpoint.com/pedagogy-research-techniques-in-education-practice-test-10/