

Woolfolk et al., Educational Psychology, 7th Canadian Edition
Chapter 1: Learning, Teaching, and Educational Psychology

Multiple Choice Questions

- 1) According to recent Census data, which of the following statements is TRUE about diversity among Canadian students?
- A) Participation of children in religions other than Christianity has decreased since 2011.
 - B) Most immigrants to Canada come from European countries.
 - C) Indigenous communities in Canada are growing and constitute 5% of the population.
 - D) Diversity is most concentrated in rural communities.

Answer: C

Explanation: C) *Indigenous communities are young and growing* and make up almost 5% of the total population of according to recent Census data. Most immigrants (62%) come from Asian countries, but people come to Canada from all over the world. Children also come from a wide range of religious communities as participation in religions other than Christianity is growing. Diversity is most concentrated in Toronto, Montreal, and Vancouver.

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Skill: Knowledge

- 2) Which of the following groups of students is most likely to be the first to benefit from good teaching?
- A) Male students.
 - B) Older students.
 - C) Higher-achieving students.
 - D) Lower-achieving students.

Answer: D

Explanation: D) According to a widely publicized study, effective teachers encourage good-to-excellent gains in achievement for all students, but *lower-achieving students were the first to benefit from good teaching*.

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Skill: Understanding

- 3) Many studies indicate that teacher-student relationships and the quality of teaching make a difference. Based on findings from such studies, which of the following children is likely to benefit most from good teaching?
- A) Jorge is in the first grade and likes math but does not like to participate in reading group, though he's a good reader.
 - B) Kellie, in kindergarten, seems to be advanced for her age. She is reading books and working first grade math.

- C) Johana is in kindergarten and exhibits behavior problems that include difficulty paying attention and regulating her attention-getting behaviors.
- D) Dwayne is in the first grade and loves school, especially when he gets to work in groups with his friends or at centers with hands-on activities.

Answer: C

Explanation: C) Effective teachers who establish positive relationships with their students appear to be a powerful force in those students' lives. Students who have problems seem to benefit the most from good teaching.

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Skill: Understanding

- 4) Which of the following is NOT TRUE of experienced teachers?

- A) They are likely to adapt instruction to student needs.
- B) They use new technologies to entertain students.
- C) They show concern for the emotional development of their students.
- D) They carefully plan their lessons from the first day of class.

Answer: B

Explanation: B) Experienced teachers need to learn to harness new technologies as a means to accomplish important goals. New technologies should **not** be used *simply to entertain the students*. All the other options are characteristics of experienced teachers.

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Skill: Knowledge

- 5) Which of the following statements is TRUE of student teaching?

- A) Student teaching does not allow prospective teachers to be as reflective about their teaching as they could be.
- B) Student teaching often occurs during periods when prospective teachers are busy with their own coursework.
- C) Student teaching does not prepare prospective teachers very well for starting off a school year with a new class.
- D) Student teaching is often carried out in classrooms that utilize classroom management strategies that a prospective teacher may not believe in.

Answer: C

Explanation: C) *Student teaching does not prepare new teachers for starting off a school year with a new class*. Many new teachers experience "reality shock" when they take their first job because they cannot ease into their responsibilities. New teachers have all of the same responsibilities as experienced teachers.

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Skill: Knowledge

- 6) Which of the following questions is most likely associated with the discipline of educational psychology?
- A) Does the textbook provide a test bank of questions for developing chapter and unit tests?
 - B) Should the skill of summarizing be taught before students learn to identify the topic and the main idea?
 - C) Do you want to explore the topic of colonialism in Canada or colonialism in other countries?
 - D) Which of these books would you like to read during the unit about historical fiction?

Answer: B

Explanation: B) Educational psychology deals with the *order of learning* and many other topics. Issues Plato and Aristotle discussed—the role of the teacher, the relationship between teacher and student, methods of teaching, the nature and order of learning, the role of emotion in learning—are still topics in educational psychology today. *Whether summarizing should be taught before teaching how to identify topic is an issue of the order of learning.*

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Skill: Knowledge

- 7) The use of the “common sense” approach to teaching is viewed by educational psychologists as
- A) appropriate in most circumstances.
 - B) inappropriate unless supported by research.
 - C) more reliable than scientific judgments.
 - D) the main factor that differentiates experienced teachers from novices.

Answer: B

Explanation: B) Common sense beliefs about teaching methods are often not grounded in research. Research findings may sometimes sound like common sense, but one must keep in mind that the issue is not what sounds sensible, *but what is demonstrated when the principle is put to the test.*

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Skill: Understanding

- 8) Lily Wong (1987) demonstrated that when individuals read a research result, they tend to
- A) become resistant toward using the strategy involved.
 - B) find the results more obvious than originally thought.
 - C) put the results into practice immediately.
 - D) seek out more information on the subject.

Answer: B

Explanation: B) Lily Wong demonstrated that seeing research results in writing (whether

or not they were correct) can make them seem obvious. Presented with twelve findings about teaching, subjects in her test had a greater tendency to believe that the results were “*obviously*” correct.

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Skill: Knowledge

9) When studies are based on observations, they can be described as

- A) causation.
- B) descriptive studies.
- C) experimental studies.
- D) quantitative studies.

Answer: B

Explanation: B) *Descriptive studies* are those that collect information about situations using techniques such as observation. Unlike descriptive studies, experimentation introduces change and records the results.

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Skill: Understanding

10) A study collects data from high schools in 10 school districts. It uses surveys to learn the type of teaching support physics student prefer from their teachers in the lab. What type of research is this?

- A) Experimental study
- B) Descriptive study
- C) Quasi-experimental study
- D) ABAB

Answer: B

Explanation: B) This is an example of a *descriptive study* as it uses surveys to collect data. Descriptive studies collect detailed information about specific situations, often using observation, surveys, interviews, recordings, or a combination of these methods.

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Skill: Understanding

11) A correlation is a statistical description indicating the

- A) direction but not the strength of a relationship.
- B) direction and strength of a relationship.
- C) strength and direction of a treatment effect.
- D) strength but not the direction of a relationship.

Answer: B

Explanation: B) A correlation is a number that indicates *both the strength and direction*

of relationships (e.g., strong positive or weak negative). Treatment effects are not related to correlational research.

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Skill: Knowledge

- 12) A positive correlation between two factors indicates that the factors
- A) are NOT necessarily related.
 - B) are strongly related.
 - C) decrease proportionately.
 - D) tend to increase or decrease together.

Answer: D

Explanation: D) A positive correlation indicates that two factors *increase or decrease together*. As one increases so does the other; as one decreases so does the other. Therefore, the two factors for a positive correlation vary in the same direction. If the correlation is negative, one factor increases while the other factor decreases.

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Skill: Knowledge

- 13) What size or direction of correlation coefficient is likely to be obtained between children's ages (from five to 13 years) and the distance that they can long jump?
- A) Close to zero
 - B) Either +1.00 or -1.00
 - C) Negative
 - D) Positive

Answer: D

Explanation: D) A *positive relationship* is likely to exist between children's ages and the distance they can long jump. Due to their greater physical size, strength, and agility, older children will generally be able to jump farther than younger children. As age increases, jumping distance tends to increase, at least through adolescence.

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Skill: Understanding

- 14) Which one of the following correlation coefficients indicates the strongest relationship?
- A) -0.03
 - B) -0.78
 - C) +0.56
 - D) +0.70

Answer: B

Explanation: B) The strongest correlation of the four choices is represented by -0.78. It is

NOT the sign (direction) that determines strength; it is the closeness of the correlation to either +1.00 or -1.00. A *correlation of -0.78 represents a fairly strong negative relationship* between the factors being correlated.

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Skill: Knowledge

- 15) What type of correlation is likely to be obtained between reading ability and running ability of high-school students?
- A) Close to zero
 - B) Either +1.00 or -1.00
 - C) Strong positive
 - D) Weak negative

Answer: A

Explanation: A) A *correlation close to zero* is likely to exist between reading ability and running ability. The two factors are relatively independent. Better readers are not likely to be faster or slower runners than others and slower readers are not any better at running than their fast-reading peers.

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Skill: Understanding

- 16) When a correlation coefficient of -0.80 is found between factor A and factor B, the most accurate interpretation is that
- A) a decrease in factor A is strongly related to a decrease in factor B.
 - B) a decrease in factor A is strongly related to an increase in factor B.
 - C) there is NO significant relationship between the two factors.
 - D) there is a very weak relationship between the two factors.

Answer: B

Explanation: B) A correlation of -0.80 indicates a strong negative relationship. *Decreases in factor A will be associated with increases in factor B.* Decreases in both factors will result in a positive relationship.

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Skill: Knowledge

- 17) A correlation study indicates that teachers' interest in teaching and the amount of the day their students are engaged in learning correlate at +0.46. This coefficient would indicate that
- A) as teacher interest decreases, engaged time increases.
 - B) as teacher interest increases, engaged time tends to increase.
 - C) interest in teaching leads to a large increase in engaged time.
 - D) there is virtually **NO** relationship between the two variables.

Answer: B

Explanation: B) The +0.46 correlation coefficient suggests a *moderately strong positive relationship* between teaching interest and engaged time. Teachers who have more interest in teaching tend to have students who are more engaged in learning, and vice versa.

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Skill: Understanding

18) A correlation coefficient of 0.90 indicates that

- A) one event has been caused by another event.
- B) one event is strongly related to another event.
- C) the two events are related 10 percent of the time.
- D) the two events are related 90 percent of the time.

Answer: B

Explanation: B) A correlation of 0.90 indicates a *strong positive relationship*. Correlations do not imply cause and effect, only that the two variables or factors are related.

Page Ref: 10
Skill: Understanding

19) At Greendale Public School, four teachers each set out to conduct a research study in his or her classroom. Which study would be LEAST likely to involve the use of a correlational analysis?

- A) Mrs. Tang, who studied amount of reading and spelling test scores
- B) Mr. Lacroix, who studied activity level in gym and degree of academic self-concept
- C) Mr. Nucci, who studied frequency of praise and rate of homework completion
- D) Miss Gann, who studied types of seating arrangements and number of disruptions

Answer: D

Explanation: D) As correlations are *numbers that indicate both the strength and the direction of a relationship between two events or measurements*, seating arrangements are neither and therefore *D) is least likely to be studied by a correlation*. D) is more likely studied through conducting descriptive research.

Page Ref: 10
Skill: Understanding

20) A researcher reports that students who have the highest achievement in school tend to be more involved in extracurricular activities compared to students with lower achievement. What specific type of research was most likely conducted to inform this finding?

- A) Descriptive
- B) Correlational
- C) Ethnographic

D) Experimental

Answer: B

Explanation: B) As correlations are numbers that indicate both the strength and the direction of a relationship between two events or measurements (e.g., GPA and # of extracurricular activities), a *correlational study* would most likely be conducted.

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Skill: Understanding

- 21) Dr. Patterson concludes from her research that using a systematic study strategy **CAUSED** good grades for students assigned to a particular group. For this conclusion to be valid, the type of research that was performed must have been what type of study?

- A) Correlational
- B) Descriptive
- C) Experimental
- D) Observational

Answer: C

Explanation: C) Dr. Patterson can infer cause-and-effect only from *experimentation*. Correlational research and observational research provide descriptive results that do not support causal relations. However, these latter two types of research can often lead to questions that can be studied by means of experimental research.

Page Ref: 10

Skill: Understanding

- 22) Which of the following methods allows researchers to study cause-and-effect relationships?

- A) Correlational studies
- B) Experimental studies
- C) Ethnography
- D) Descriptive studies

Answer: B

Explanation: B) Experimentation allows educational psychologists to go beyond predictions and study cause-and-effect.

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Skill: Knowledge

- 23) In creating groups of subjects for an experimental study, which one of the following procedures would **MOST** likely produce random groups for a class of thirty students?

- A) A coin is tossed in order to select students alternately one by one into the experimental

and control groups.

- B) The first ten students who enter the classroom are placed into the experimental group and the next ten into the control group.
- C) The first twenty volunteers are selected from the physics class and alternately placed into experimental and control groups.
- D) The twenty students with the highest GPAs are selected and alternately placed into experimental and control groups.

Answer: A

Explanation: A) A random sample is one in which each subject has an equal opportunity to be selected for any group. The three situations described in the alternative answers to this question all concern special, rather than randomly composed, groups of students. Thus, identifying the experimental groups by *coin tossing is the method that most closely approximates a random selection*.

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Skill: Understanding

- 24) When a result from a research project involving an experimental design is reported in the literature as significant, this result
- A) contradicts the prevailing theoretical views.
 - B) is unrelated to theory development.
 - C) is unlikely to have occurred by chance.
 - D) will indicate its practical importance.

Answer: C

Explanation: C) Statistical significance means that the result is *unlikely to have occurred by chance*. It does **NOT** necessarily imply that the result has either practical or theoretical importance.

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Skill: Understanding

- 25) Random assignments would be most critical in what type of research?
- A) Case study
 - B) Correlational
 - C) Descriptive
 - D) Experimental

Answer: D

Explanation: D) By randomly assigning subjects to treatments and evaluating the treatments, *experiments are designed to study cause and effect*. Unlike descriptive studies, changes made in an experimental study can be attributed to the treatments introduced, because all other relevant factors are intended to be controlled. In correlational studies, usually only one group of subjects is studied on a variety of factors.

A cross-sectional study typically involves several groups of subjects who are then compared on a variety of factors. Such studies are not experimental.

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Skill: Knowledge

- 26) A researcher participates in a class over a two-month period and analyses the strategies the teacher employs to maintain discipline. This research is an example of what specific type of research study?

- A) Cross-sectional
- B) Ethnography
- C) Experimental
- D) Participant observation

Answer: B

Explanation: B) *Ethnographic studies* involve an intensive examination of real-life contexts (such as schools or classrooms) through observations. In this example, the researcher spent two months observing the teacher and recording descriptions of the discipline techniques employed. There is no indication that the researcher is a participant observer in the research.

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Skill: Understanding

- 27) An ethnographic study:

- A) is a personalized account on either teaching or learning experiences.
- B) focuses on life within a group and attempts to unravel the meaning of events to the group.
- C) involves studying cause and effect relationships.
- D) involves examining the relationships between variables.

Answer: B

Explanation: B) Ethnographic studies involve studying the naturally occurring events in the life of a group in order to understand the meaning of these events to the people involved.

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Skill: Knowledge

- 28) Which of the following statements are TRUE of longitudinal studies?

- A) They are time consuming and expensive.
- B) They are more commonly used than experimental and cross-sectional studies.
- C) They involve researchers following students over the course of a few days.
- D) They utilize teachers directly in the research process.

Answer: A

Explanation: A) Longitudinal studies are interested in the cognitive development of their subjects over several months or years. Even though they are informative, they are *time-consuming, expensive*, and infrequently used as they require following subjects over years. D) captures action research most accurately.

Page Ref: 12
Skill: Knowledge

29) What research method is being used if a study examines the effects of poverty on academic achievement by following students from kindergarten through the fifth grade?

- A) Ethnographic
- B) Case study
- C) Longitudinal
- D) Action research

Answer: C

Explanation: C) Many things that psychologists want to study, such as cognitive development, happen over several months or years. Ideally, researchers would study the development by observing their subjects over many years as changes occur. These are called *longitudinal studies*.

Page Ref: 12
Skill: Understanding

30) Which of the following research methods would be used to examine a person or situation in depth by conducting interviews with family members, teachers, and friends?

- A) Participant observation.
- B) Single-subject experiment.
- C) Case study.
- D) Field experiment.

Answer: C

Explanation: C) *Case studies* involve an intensive examination of real-life contexts (such as schools or classrooms) through direct observations, biographical data, school records, test results, peer ratings, and a wide variety of other observational tools. The researcher would investigate *one person or a group of people intensively over a relatively long period of time*.

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Skill: Knowledge

31) Microgenetic studies:

- A) intensively study cognitive processes in the midst of change.
- B) apply an ABAB experiment design.
- C) are employed to assess cause and effect relationships.

D) typically utilize many children as study participants.

Answer: A

Explanation: A) The goal of microgenetic studies is to *intensively study cognitive processes in the midst of change* – as the change is actually happening. They explore the underlying mechanisms of that change. This form of research is expensive and time consuming, so often only one or two children are studied. ABAB experimental design has nothing to do with microgenetic studies as it is a form of single-subject experimental design.

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Skill: Knowledge

- 32) Dr. Sullivan conducts research that involves measuring the amount of change in student scores on state math tests at the beginning of the year and at the end of the year for students in top teachers' classrooms. What type of research is Dr. Sullivan conducting?

- A) Qualitative
- B) Case study
- C) Quantitative
- D) Ethnographic

Answer: C

Explanation: C) *Quantitative research uses numbers, measurement, and statistics to assess levels or sizes of relationships among variables or differences between groups.* Both correlational and experimental types of research generally are quantitative because measurements are taken, and computations are made.

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Skill: Understanding

- 33) A researcher concludes from his study that, on a typical school day, students spend only 50 percent of their time engaged in learning. What type of research must have been conducted in order for this conclusion to be valid?

- A) Single-subject design
- B) Participant-observer
- C) Descriptive
- D) Experimental

Answer: C

Explanation: C) *Descriptive methods* would be used by a researcher to study how much time is spent on learning activities during a typical day. This would require observations for a number of days and might include students' self-reports and/or teacher ratings in order to identify a pattern for the amount of time actually spent in learning activities.

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Skill: Understanding

- 34) A researcher finds that students who were given computers to use at home demonstrated greater independent learning skills than a comparable group that was not selected to receive home computers. What type of research study was probably designed for this conclusion to be valid?

- A) Correlational
- B) Descriptive
- C) Experimental
- D) Observation

Answer: C

Explanation: C) Apparently, an *experimental* approach was employed. The key factor is the manipulation and then comparison of different treatments: having computers vs. not having them.

Page Ref: 13-14

Skill: Understanding

- 35) Which of the following terms would be used to describe an explanation of how we remember things that we have learned?

- A) construct.
- B) correlation.
- C) principle.
- D) theory.

Answer: D

Explanation: D) A *theory* is an integrated statement of principles that attempts to explain a phenomenon and make predictions. An explanation of behaviour or human functioning, such as how we remember what we have learned or why we are motivated to do something is considered a theory.

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Skill: Understanding

- 36) Action research:

- A) is a form of research that puts an observed behaviour “under a microscope.”
- B) is a form of research conducted by teachers themselves.
- C) is a form of research that studies development by observing subjects over many years.
- D) is a form of research that focuses on groups of subjects at different ages.

Answer: B

Explanation: B) *Action research* involves the systematic observation or testing of methods *conducted by teachers or schools to improve the teaching and learning for their own students*. Option A) describes microgenetic studies. Option C) describes longitudinal

studies, and option D) describes cross-sectional studies.

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Skill: Knowledge

- 37) Mr. Grant is a reflective teacher who is always trying to improve his teaching practices to increase student learning. He has conducted several research projects and changed teaching strategies on the basis of the results. In his latest reflections, he predicted that his low-achieving students would complete their spelling tasks in less time and score higher on spelling tests if he began using a buddy system. In the research cycle, Mr. Grant has developed:

- A) a theory
- B) a principle
- C) a hypothesis
- D) a plan for data analysis

Answer: C

Explanation: A *hypothesis* is a prediction of what will happen in a research study based on theory and previous research.

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Skill: Understanding

- 38) When a number of studies are completed and the findings repeatedly point to the same conclusions, it is possible to state the relationship between factors as a

- A) theory
- B) principle
- C) scientific explanation
- D) hypothesis

Answer: B

Explanation: D) A *principle* is defined as the established relationship between factors and is derived from conducting studies in an area and having the findings repeatedly point to the same conclusion.

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Skill: Knowledge

- 39) Which of the following is true of why good theories of practice are useful in the classroom?

- A) They are able explain and predict classroom behaviours perfectly.
- B) They are less scientific compared to ten years ago.
- C) Theories give you a new way of thinking about problems.
- D) Theories aid in helping instructors with specific issues.

Answer: C

Explanation: C) Few theories are able to explain and predict perfectly or offer all the answers. A good theory, however, will *provide a new framework for thinking about problems*. For example, a good theory of classroom management might provide new insights about discipline problems, give you tools for creating solutions to many different problems and for predicting what might work in new situations (i.e., different classroom contexts, different populations of students etc.)

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Skill: Understanding

True/False Questions

- 40) As teachers' experience grows, they tend to become more likely to judge their success by their students' successes.

Answer: TRUE

Explanation: As a teacher becomes more experienced, rather than asking about their own performance, they ask, "How are the children doing?"

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- 41) The major concern of new teachers is that they do not know the subject material they have to teach.

Answer: FALSE

Explanation: Beginning teachers concerns often include how to maintain classroom discipline, motivate students, accommodate differences among students, evaluation students' work, deal with parents, and get along with other teachers.

Page Ref: 7

- 42) E. L. Thorndike wrote the first educational psychology text and founded the *Journal of Educational Psychology* in 1970.

Answer: FALSE

Explanation: Thorndike's first text was published in 1903 and founded the *Journal of Educational Psychology* in 1910.

Page Ref: 8

- 43) Compared to experimental studies, descriptive studies are usually conducted in settings that are more realistic.

Answer: TRUE

Explanation: The purpose of descriptive studies is to describe events in a particular class or several classes. In experimental studies, the investigators introduce changes and note

the results, therefore the environment is manipulated in some way (and not naturally occurring).

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44) Correlations may be included within a descriptive study.

Answer: TRUE

Explanation: The results of descriptive studies often include reports of correlations.

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45) Correlations provide the basis for interpretations about cause-and-effect.

Answer: FALSE

Explanation: Correlations do not prove cause-and-effect but can indicate the strength and direction of a relationship between variables.

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46) Negative correlations are typically weaker than positive correlations.

Answer: FALSE

Explanation: The strength of a correlation is independent of the direction of the correlation. Because a correlational is negative, it may also be strongly negative (e.g., a correlation of -1.00 would be strongly negative).

Page Ref: 10

47) If a statistically significant difference is found between the math scores of two groups, we can conclude the difference was due to a chance occurrence.

Answer: FALSE

Explanation: If something is statistically significant, then it is not likely to be due to a chance occurrence.

Page Ref: 11

48) Microgenetic studies intensively study cognitive processes in the midst of change.

Answer: TRUE

Explanation: Microgenetic studies are involve detailed observation and analysis of changes in a cognitive process as the process unfolds over several days or weeks.

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49) Ethnographic studies are usually considered to be an example of qualitative research.

Answer: TRUE

Explanation: Qualitative research attempts to understand the meaning of events to the participants involved. Case Studies and ethnographies are examples of qualitative research.

Page Ref: 12-13

50) Case studies are generally presented as an example of quantitative research.

Answer: FALSE

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51) Theories explain and predict all occurrences in a given field.

Answer: FALSE

Explanation: Theories are integrated statements of principles that attempt to explain specific phenomena and to make predictions. No theory offers all the answers to a given field.

Page Ref: 15

52) A theory can be characterized as a guess or a hunch.

Answer: FALSE

Explanation: This would be a common-sense notion of theory, but not how it is intended in the scientific meaning. A theory is an integrated statement of principles that attempts to explain a phenomenon and make predictions.

Page Ref: 15

53) Action research is a form of educational research typically conducted by anthropologists.

Answer: FALSE

Explanation: Action research involves systematic observations or tests of methods that is conducted by teachers or schools to improve teaching and learning for their students.

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Completion Questions

54) When beginning teachers confront everyday classroom life, they often experience _____.

Answer: reality shock.

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55) The discipline that studies the processes of teaching and learning is called _____.

Answer: educational psychology

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56) Two broad types of research studies are _____ that collect detailed information about specific situations and _____ which manipulates variables and records the effects.

Answer: descriptive studies; experimental studies

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57) Research that is designed to determine the relations between two variables is a(n) _____ study.

Answer: correlational

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58) Weight of clothing and outside temperature are _____ correlated.

Answer: negatively

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59) The type of research that attempts to establish cause-and-effect relationships is a(n) _____ study.

Answer: experimental

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60) You pick names from a hat to determine which group you should assign each subject to. This is a(n) _____ assignment.

Answer: random

Page Ref: 11

61) Findings considered statistically unlikely to have occurred by chance are described as _____.

Answer: significant

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62) Ethnographic methods draws on techniques developed in the discipline of _____.

Answer: anthropology

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63) A researcher involved in an ethnographic study who becomes a working member of a class in order to record and gain understanding of the class dynamics is a(n) _____.

Answer: participant observer

Page Ref: 12

64) If researchers wanted to study the development of students over many years as change occurs, they would likely be conducting a _____ study.

Answer: longitudinal

Page Ref: 12

65) An interrelated set of concepts that attempt to explain a phenomenon and make predictions is called a(n) _____.

Answer: theory

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66) A(n) _____ can be established when findings in a given area repeatedly support the same conclusion.

Answer: principle

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67) The term _____ means “based on data.”

Answer: empirical

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Short Answer Questions

68) Discuss the problems or issues that most concern beginning teachers today. Which concerns would be the most important to you personally? Explain your choice(s).

Answer: New teachers may worry about their teaching skills, being liked by peers and students, making a good impression, and basically surviving. Specific concerns are maintaining discipline, motivating students, accommodating individual differences, evaluating students, and dealing with parents. Many teachers also experience what has been described as “reality shock” when they take their first job because they really cannot

ease into their responsibilities.

Page Ref: 7

- 69) Discuss the role of common sense in teaching strategies and assess whether common sense strategies are useful.

Answer: Teachers should not rely on common sense unless they are confirmed by actual research. However, research often proves that common sense answers to questions about teaching and learning are not valid. Many strongly held beliefs about teaching and learning have no basis in research. The important point is not what sounds or seems sensible, but what is demonstrated to be effective and supported by research.

Page Ref: 9-10

- 70) Differentiate between descriptive and experimental research with regard to purpose and methods.

Answer: Descriptive research cannot show cause-and-effect relationships; it does not involve a change or treatment, and it uses observation to characterize things as they exist. Some approaches to descriptive research include ethnography, longitudinal studies, and case studies. Experimental research involves randomization, control of some variables, and a dependent variable (outcome) and independent variable (treatment). Experimental research may indicate cause-and-effect relationships. Quasi-experimental studies and single-subject experimental studies are examples.

Page Ref: 10-12

- 71) The local secondary school board is interested in finding a way to reduce the number of times students arrive late for class. At the last committee meeting, someone came up with an idea that at the end of the month, the school could give a movie pass to each student who arrived late no more than once during the month. To explore the effectiveness of giving movie passes to reduce lateness, explain which type of research would be most appropriate, and outline one advantage and one disadvantage of this type of research.

Answer: The objective here would be to determine if frequency of lateness is reduced by giving out movie passes as opposed to some other variable, such as time of year or homework load. Therefore, the most appropriate type of research would be experimentation, so that one would be better able to conclude that giving out movie passes caused students to be late fewer times. One advantage of experimentation is that the researchers can control when the movie passes are to be given out and therefore, better identify a cause-and-effect relationship. The disadvantage of experimentation is that because the school environment is controlled somewhat (e.g., the movie passes, assigning subjects to groups), the results may not be the same as what would be found in a natural setting in which nothing was controlled or manipulated.

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- 72) If a teacher wanted to collaborate with a researcher to better understand why one student was having difficulty adding two fractions, would you recommend they use an

experimental design or conduct a microgenetic investigation?

Answer: A microgenetic study would allow the research team to analyse what strategy the student used to try to add two fractions. The researcher might observe the student trying to solve the math problem, interview the student about his or her strategies, and examine in careful detail the student's notes and submitted work. As noted by Woolfolk, the student's behaviour would be "put under a microscope."

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- 73) Explain how principles and theories are derived. Discuss how knowledge of a theory (e.g., classroom management) can be helpful to a classroom teacher.

Answer: Principles come from seeing patterns in situations or research findings. A theory is a teacher's explicit explanation about a phenomenon. Both principles and theory of classroom management are useful. Principles of classroom management may give you help with specific problems. A theory of classroom management, however, will give you a new way to think about discipline problems. A theory may also give you tools for creating solutions to many different problems and for predicting what might work in new situation.

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Case Studies

Jill received her Bachelor of Arts Degree in education in June and will be meeting her first class of second graders tomorrow at Briarview Elementary School. Her classroom will be adjacent to one assigned to Ms. Ferguson, a veteran first-grade teacher considered to be one of the most knowledgeable and skilled in the district. Ms. Ferguson will be starting her tenth year of teaching.

- 74) What are likely to be Jill's major concerns about her first months of teaching? Explain your choices.

Answer: As a beginning teacher, Jill's primary concerns will most likely be those shared by other new teachers. In particular, she likely is concerned with maintaining classroom discipline, accommodating differences among students, evaluating students' work, dealing with parents, and getting along with other teachers. She may also experience the reality shock of beginning a first teaching position as there is no way to ease into her new responsibilities.

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- 75) Discuss how the two teachers might differ in using achievement results as information about (a) student learning and (b) their own success in teaching.

Answer: Compared to Jill, Ms. Ferguson is more likely to use information about student achievement to evaluate the extent to which her new teaching methods or materials allowed her to meet her instructional objectives. Whereas Jill might ask "How am I doing?" to evaluate herself, Ms. Ferguson is likely to ask "How are the children doing?" to evaluate her teaching.

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Ninth-grade teachers at Farmington Junior High School are interested in knowing whether using cooperative learning will increase student understanding of mathematics. They would like to conduct a research study to investigate whether this is truly the case.

- 76) One teacher speculates that students who are more social than others are likely to have greater appreciation of the cooperative learning method. What research approach should be used to answer this question? Use an example to illustrate an application of this type of research.

Answer: To answer this question the researcher would want to utilize a correlational design for the research project. The researcher could report how often and how much students socialize with other students during recess. Having a measure of social interaction, the research would explore whether mathematics scores for students in a cooperative learning setting relates to students' level of social ability. The hypothesis may be that students who are highly social will also have math test scores when they are taught in a cooperative learning setting. If this were to be true, we would expect a high and positive correlation coefficient (perhaps $+0.70$ or higher).

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- 77) Design an experimental study (basic elements, not detailed procedures) that could be used to answer the teachers' research question.

Answer: The researcher would randomly assign students to either the cooperative learning condition or the traditional lecture condition. Thus, the teacher is changing his or her approach and will note the results from the change. In this case, the change or "treatment" is the inclusion of cooperative learning. The traditional lecture group serves as the "control" condition. The researchers' goal is to compare the mathematical achievement scores from students in the cooperative learning condition with scores from students in the traditional lecture condition. If a difference between the two groups exists, then the researcher explores whether or not the difference is more than one might expect by chance (i.e., significance testing).

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- 78) How might descriptive research also be used in the above study? Describe an example.

Answer: The researcher would collect many types of information regarding the characteristics and background of the students in the cooperative learning situation. The researcher might report students' mathematics scores by gender, ethnicity, number of previous math courses, and students' level of math anxiety. The researcher could describe in detail the distribution of scores (how many earned very high or low math scores).

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