

TEST BANK



TENTH EDITION

EDUCATIONAL PSYCHOLOGY

THEORY
AND
PRACTICE



ROBERT E. SLAVIN

Test Bank

for

Slavin

Educational Psychology Theory and Practice

Tenth Edition

prepared by

J. Rachel Green
Barbara E. Fuller

PEARSON

Boston Columbus Indianapolis New York San Francisco Upper Saddle River
Amsterdam Cape Town Dubai London Madrid Milan Munich Paris Montreal Toronto
Delhi Mexico City Sao Paulo Sydney Hong Kong Seoul Singapore Taipei Tokyo

Copyright © 2012, 2009, 2006, 2003, 2000, 1997, 1994, 1991, 1988, 1986 by Pearson Education, Inc., publishing as Allyn & Bacon, 501 Boylston St, Suite 900, Boston, MA, 02116.

All rights reserved. The contents, or parts thereof, may be reproduced with *Educational Psychology: Theory and Practice*, Tenth Edition, by Robert E. Slavin, provided such reproductions bear copyright notice, but may not be reproduced in any form for any other purpose without written permission from the copyright owner.

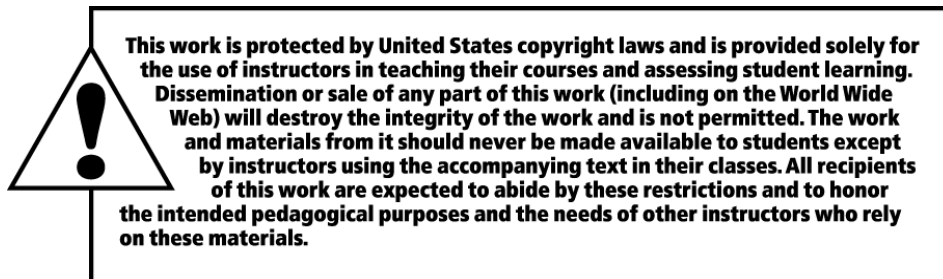
To obtain permission(s) to use the material from this work, please submit a written request to Permissions Department, 501 Boylston Street, Suite 900, Boston, MA 02116; fax your request to 617-671-2290; or email permissionsus@pearson.com



www.pearsonhighered.com

ISBN-10: 0-13-703437-7

ISBN-13: 978-0-13-703437-6



CONTENTS

Chapter 1	Educational Psychology: A Foundation for Teaching	1
	Answer Key	16
Chapter 2	Cognitive, Language, and Literacy Development	19
	Answer Key	35
Chapter 3	Social, Moral, and Emotional Development	38
	Answer Key	50
Chapter 4	Student Diversity	53
	Answer Key	66
Chapter 5	Behavioral Theories of Learning	69
	Answer Key	82
Chapter 6	Information Processing and Cognitive Theories of Learning	85
	Answer Key	100
Chapter 7	The Effective Lesson	103
	Answer Key	115
Chapter 8	Student-Centered and Constructivist Approaches to Instruction	118
	Answer Key	132
Chapter 9	Grouping, Differentiation, and Technology	135
	Answer Key	148
Chapter 10	Motivating Students to Learn	151
	Answer Key	164
Chapter 11	Effective Learning Environments	167
	Answer Key	180
Chapter 12	Learners with Exceptionalities	183
	Answer Key	196
Chapter 13	Assessing Student Learning	199
	Answer Key	214
Chapter 14	Standardized Tests and Accountability	217
	Answer Key	230

Chapter 1
EDUCATIONAL PSYCHOLOGY: A FOUNDATION FOR TEACHING

Multiple Choice

- 1) Which of the following statements about the role of educational psychology in teacher education is accurate?
 - A) Educational psychology tells teachers what to do in order to be effective in the classroom.
 - B) Educational psychology course work focuses on subject matter knowledge rather than pedagogical knowledge.
 - C) Educational psychology provides teachers with research-based principles to guide their teaching.
 - D) Educational psychology is the study of learning theory without regard to classroom application.

- 2) Which of the following statements best expresses the text author's view of the importance of subject matter knowledge in effective teaching?
 - A) It is the single indispensable ingredient in effective teaching.
 - B) It is more important than communicating knowledge to students.
 - C) It is of little importance when compared to qualities such as self-discipline, leadership, and enthusiasm.
 - D) It is a good start; necessary, but not sufficient.

- 3) According to the text author, knowledge of how to transmit information and skills to students is:
 - A) sufficient for effective teaching.
 - B) at least as important as knowledge of what to teach.
 - C) no different from knowing the subject matter well.
 - D) not as important as knowledge of what to teach.

- 4) Teachers who demonstrate skill in communicating with students possess:
 - A) tenure status.
 - B) advanced degrees in their disciplines.
 - C) pedagogical knowledge.
 - D) teaching licenses.

- 5) All of the following teacher actions are pedagogically sound **EXCEPT**:
 - A) considering prerequisite skills needed to understand new ideas.
 - B) engaging students in active learning that leads to understanding.
 - C) concluding that the required subject matter will not interest the students.
 - D) taking into account the intellectual characteristics of students.

- 6) Content knowledge is to "what to teach" as _____ is to "how to teach."
 - A) ethnography
 - B) discipline
 - C) prerequisite
 - D) pedagogy

- 7) According to your text author, can good teaching be taught?
- A) Yes, good teaching strategies can be learned and applied.
 - B) No, there are too many personality factors to be considered.
 - C) Yes, but it can only be taught to those who demonstrate above average intelligence.
 - D) No, teachers are born, not made.
- 8) During a social studies class, two students at the back of the room whisper to each other about the dance on Saturday night. The teacher moves near the two students, but does not stop the discussion about President Johnson's Great Society. The students stop whispering to each other. Which principle of effective teaching is being used?
- A) Use the discipline problem as a teaching tool.
 - B) Use the mildest intervention possible.
 - C) Wait until minor problems become major before intervening.
 - D) State rules, give examples, and then restate rules.
- 9) Teachers who think about the outcomes they want for their students and how each decision they make moves students toward those outcomes:
- A) are novice teachers.
 - B) will lose students' attention.
 - C) are focused mainly on subject matter knowledge.
 - D) are intentional teachers.
- 10) Ms. Marano has a strong sense of teacher efficacy. Which of the following is she most likely to believe?
- A) Students' potential for academic achievement comes down to how much ability they inherited.
 - B) Students with a negative home environment cannot be reached.
 - C) A teacher's actions are a major influence on a student's level of success.
 - D) Success will come when a teacher is lucky enough to get a "good class."
- 11) According to Bandura (1997), teachers who have strong teacher efficacy are likely to:
- A) decrease the amount of effort invested in teaching, when students fall short of academic goals.
 - B) accept the fact that some students will never succeed.
 - C) blame students' failure on parents.
 - D) persist in their efforts, even when students fail.
- 12) Intentional teachers become expert by engaging in all of the following activities **EXCEPT**:
- A) upgrading and examining their teaching practices.
 - B) using their own students' responses to guide instructional decisions.
 - C) unquestioning adherence to the methods learned during teacher training.
 - D) reading and attending conferences to learn new ideas.

- 13) According to the text author, what is most likely the major difference between teachers with 20 years of experience and teachers with one year of experience 20 times?
- A) age
 - B) relationships with principals
 - C) ability to reflect
 - D) content knowledge
- 14) From studies in educational psychology, we know that:
- A) scolding students for misbehavior will result in better behavior.
 - B) whole group instruction is better than individual instruction.
 - C) student achievement increases when independent study strategies are used.
 - D) mixed-ability grouping is more effective than same-ability grouping.
- 15) Ideas that explain relationships between factors are called:
- A) theories.
 - B) laws.
 - C) principles.
 - D) hypothesis.
- 16) What is the main purpose of theory development?
- A) Theories gather data that prove cause and effect.
 - B) Theories identify principles that have been thoroughly tested.
 - C) Theories explain relationships between two factors.
 - D) Theories synthesize laws and principles.
- 17) Which one of the following statements about educational psychology is accurate?
- A) Progress in how we come to understand behavior and learning is a slow and uneven process.
 - B) Often, a single study will provide breakthrough evidence to extend theories.
 - C) Theories break down laws and principles so that they can be studied in their most pure form.
 - D) An example of a theory would be that discovery learning increases student learning.
- 18) It is probably true that the most important things that teachers learn about teaching take place:
- A) in liberal education programs.
 - B) in departments of education.
 - C) in graduate school.
 - D) while on the job.
- 19) Which of the following statements about theories is accurate?
- A) The quality, accuracy, and usefulness of theories are what determine, ultimately, a teacher's success.
 - B) Theories are based on clearly established outcomes and are thus rarely changed once formulated.
 - C) Theories are common in the hard sciences but not appropriate for education.
 - D) Theories evolve and gain acceptance relatively quickly.

- 20) One aim of educational psychology is to:
- A) find a unified method of teaching all learners.
 - B) eliminate rigorous teaching licensing policies.
 - C) test theories that guide the actions of teachers.
 - D) turn laws into useful theories.
- 21) When you combine objective research with common sense, the result is:
- A) decreased quality in decision making.
 - B) effective teaching.
 - C) self-regulated learning.
 - D) inconsistent student achievement.
- 22) Which of the following statements best sums up the role of research in teaching?
- A) Decision making, when based on research, is free of context.
 - B) Common sense has no place in instructional decision making.
 - C) No theory, research, or book can tell teachers what to do in a given situation.
 - D) Educational psychology research can be translated directly into instructional effectiveness.
- 22) Which of the following components of sound teacher decision making is FALSE?
- A) Sound decision making depends on the objectives the teacher has in mind.
 - B) Sound decision making depends on the situation within which a problem arises.
 - C) It is necessary to combine principles and theories with common sense when making decisions.
 - D) Principles and theories should be isolated from context.
- 23) Based on your textbook author's conception of effective teaching, which of the following statements is true?
- A) Knowing what research prescribes will ensure that the most effective teaching decisions will be made.
 - B) What were effective strategies 10 years ago will not work well today.
 - C) Common sense may be appealing, but it usually results in poor judgment and lower student success.
 - D) More weight should typically be given to the teacher's informed judgment of a classroom situation, than to direct prescriptions from research findings.
- 24) The essence of a variable is that it:
- A) ensures that two groups are equivalent.
 - B) creates special treatments and examines their effects.
 - C) synthesizes principles and laws.
 - D) can have more than one value.

- 25) A researcher wants to study the effects of rewards on motivation. Two groups of students are set up; one group receives rewards for its efforts and the other group does not. In order to ensure that the two groups are essentially equivalent, what procedure should the researcher use?
- A) Have students count off by twos.
 - B) Randomly assign students to groups.
 - C) Put all students who are motivated by awards in one group.
 - D) Let students choose the group to which they would like to belong.
- 27) Which of the following is an example of random assignment?
- A) The first half of the class that enters the classroom is put in one group; the remaining students are assigned to another group.
 - B) Students whose last name begins with the letters A – L are assigned to one group; the remainder are assigned to another group.
 - C) Students who roll an odd number on a die are assigned to one group; those who roll an even number are assigned to another.
 - D) Students are allowed to choose the group to which they prefer to belong.
- 28) A math teacher randomly assigns one group of students to use computers and one group to use work sheets when learning fractions. The teacher then compares the two groups by giving both groups a test of fractions knowledge. What type of research was conducted?
- A) descriptive study
 - B) correlational study
 - C) ethnography
 - D) experiment
- 29) Studies demonstrating that differences in findings can be attributed to the treatment given are said to have high:
- A) correlational coefficients.
 - B) applicability.
 - C) generalizability.
 - D) internal validity.
- 30) Which of the following research types attempts to control all factors except those created by the treatment, while remaining relevant to real life?
- A) correlational study
 - B) randomized field experiment
 - C) single case study
 - D) laboratory experiment

- 31) A teacher experimented with different approaches to instruction in a class. Although all of the conditions of the experiment could not be controlled, the teacher's study was meaningful to real students in real classrooms because it followed all the rules of good research. Therefore, the
- A) study can be replicated with consistent results.
 - B) results would be the same across cultures and contexts.
 - C) results show a high degree of external validity.
 - D) findings will predict effective instruction in all third grade classrooms.
- 32) In a study, students were randomly assigned to classes receiving individual tutoring or no tutoring. The students who did not receive tutoring are called the:
- A) control group.
 - B) placebo group.
 - C) pilot group.
 - D) experimental group.
- 33) In one study, teachers were assigned to either group A, which received additional training in teaching strategies, or group B, which received no training. Group A is called the:
- A) pilot group.
 - B) control group.
 - C) placebo group.
 - D) experimental group.
- 34) In some situations a randomized field experiment may not be possible, because teachers cannot be assigned to treatments. In such cases equivalence of experimental and control groups may be established using matching, rather than random assignment. Compared with the randomized field experiment, the field experiment that uses matching has:
- A) higher external validity.
 - B) lower internal validity.
 - C) higher internal validity.
 - D) lower external validity.
- 35) After a new hand-raising rule was implemented, a special education teacher collects data on a student's hand-raising behavior. What type of research is this?
- A) correlational study
 - B) randomized field experiment
 - C) single case experiment
 - D) laboratory experiment

- 36) A teacher notes the average number of students who clean up their materials each day for one week. The teacher then implements a reinforcement program for neatness and observes the students' neatness behavior for another week. What type of research is this?
- A) correlational study
 - B) single case experiment
 - C) randomized field study
 - D) laboratory experiment
- 37) A researcher can understand the results of a single case study by:
- A) statistically comparing the experimental and control groups.
 - B) talking to the participants and noting their ideas.
 - C) statistically comparing the results from the lab and the field.
 - D) graphing the results and analyzing the graphs.
- 38) In single-case experiments, examination of graphed results would generally be used for:
- A) deciding about whether results are clear enough to accept.
 - B) situations in which common sense is at odds with research.
 - C) selecting experimental methodologies that "meet the eye."
 - D) determining whether a correlation is statistically significant.
- 39) A researcher found that students who scored high on a test of reading achievement also scored high on a self-esteem inventory. The researcher can say that reading achievement and self-esteem are:
- A) positively correlated.
 - B) internally correlated.
 - C) negatively correlated.
 - D) externally correlated.
- 40) Which of the following examples depicts a negative correlation?
- A) Students who had the highest grade point averages received the highest math scores.
 - B) Students who studied for the greatest length of time prior to a math test received the highest scores.
 - C) Students who were absent the least prior to a math test had the highest scores.
 - D) The amount of time students studied for a math test was unrelated to the scores they received.
- 41) A researcher has completed a study correlating middle school students' science interests and science achievement. The results of the study will show:
- A) how a single student who is low or high on one variable scores on the other.
 - B) the degree of relationship between the two variables.
 - C) what happens when one of the two variables is kept constant for two or more groups.
 - D) how one variable causes the other.

- 42) When the values of one variable are high, the values of the other are also high. What type of correlation is being described?
- A) neutral
 - B) positive
 - C) uncorrelated
 - D) negative
- 43) A music teacher finds that the amount of time students spend listening to rap music is negatively correlated with grades in music class. Based on these results, the teacher might conclude that listening to rap music
- A) causes the high grades.
 - B) is associated with high grades.
 - C) causes the low grades.
 - D) is associated with low grades.
- 44) A positive correlation would most likely exist between:
- A) school achievement and ability to ride a bicycle.
 - B) singing ability and academic achievement.
 - C) motivation to learn and academic achievement.
 - D) hours spent playing video games and writing ability.
- 45) A student has been absent for many days during a semester; so, the teacher meets with the student's parents. The teacher remarks that the more days absent from school, the worse student's grades tend to be. What type of correlation is the teacher suggesting there is between attendance and achievement?
- A) neutral
 - B) uncorrelated
 - C) negative
 - D) positive
- 46) A teacher suspects that students who take more time to complete examinations will tend to earn higher scores. If the teacher is correct, the resultant correlation between completion time and performance will be:
- A) negative.
 - B) causal.
 - C) zero.
 - D) positive.
- 47) You are reading a description of a correlational study in which the author concludes that aggression in class causes poor grades. Which of the following reactions to the author's conclusion is appropriate?
- A) The author may be correct but cannot make a cause-effect conclusion from a correlational study.
 - B) The author is incorrect since aggression cannot be measured.
 - C) The author is correct in making the conclusion.
 - D) The author's conclusion is wrong since a correlational study cannot demonstrate a relationship between two factors.

- 48) A type of research in which an observer studies natural events as they occur in a social setting is called
- A) quantitative research.
 - B) descriptive research.
 - C) correlational research.
 - D) cause-and-effect research.
- 49) Why would a researcher conduct an ethnographic study?
- A) to explore a new context for conducting research
 - B) to establish cause-and-effect relationships between variables
 - C) to validate a principle or law
 - D) to prove a theory
- 50) An experimenter sits in the back of a classroom for three months in a school for students with special needs. Students' behaviors are observed as a new teaching method is used. What type of study is this?
- A) ethnography
 - B) experimental
 - C) lab experiment
 - D) correlational
- 51) Which of the following procedures is used in descriptive research?
- A) random assignment
 - B) interviews
 - C) control groups
 - D) treatments of variables
- 52) A developmental psychologist observes and then synthesizes observations into a theory showing how individuals develop cognitively over time. What type of research is being conducted?
- A) correlational
 - B) descriptive
 - C) laboratory
 - D) experimental
- 53) A benefit of action research is that:
- A) it gives pupils a more active role in research design than they have in other types of descriptive research.
 - B) professionals are directly involved in the program under study, which may bring great insight to the investigation.
 - C) the data gathering process meets the highest standards of objectivity.
 - D) it has higher internal validity than experiments.

- 54) As educational polices tend to lag behind, an emphasis on 21st century skills is designed to assist the educator in:
- A) thinking about curriculum and teaching methods.
 - B) the integration of technology and different forms of assessment.
 - C) both A and B.
 - D) neither A nor B.
- 55) Initiative and self-direction are exemplified by which category of 21st century skills?
- A) core subjects
 - B) learning and innovation skills
 - C) information and media technology skills
 - D) life and career skills
- 56) During this type of research a school employee would try out a new strategy, collect data, and debrief with other personnel on its effective components.
- A) descriptive research
 - B) action research
 - C) correlational study
 - D) cooperative research
- 57) A good example of talking teaching would be to:
- A) read a journal.
 - B) join a book club.
 - C) get student feedback.
 - D) none of the above.
- 58) What is Standard 8 of the Interstate New Teacher Assessment and Support Consortium?
- A) knowledge of human development and learning
 - B) partnership
 - C) classroom motivation
 - D) assessment of student learning

True/False

- 59) Educational psychology is the study of learners, learning, and teaching.
- 60) Pedagogy is the study of academic content knowledge.
- 61) Effective instruction is simply a matter of one person with more knowledge transmitting it to another.
- 62) According to the text author, good teaching can be taught.
- 63) One attribute that is characteristic of outstanding teachers is intentionality.
- 64) Intentional teachers keep instructional goals in mind when making decisions about students.
- 65) Critical thinking skills for teachers include the use of logical and systematic approaches to educational practices.
- 66) Laws are principles that have yet to be thoroughly tested.
- 67) Principles, theories, and laws are the products of research.
- 68) Research + Effective Teaching = Common Sense.
- 69) A variable is anything that has just one value.
- 70) Laboratory experiments may have little relevance to real-life situations.
- 71) If achievement in reading goes up as does achievement in math, the variables can be said to be negatively correlated.
- 72) Descriptive research has less objectivity than experimental research.
- 73) Surveys, ethnographies, and action research are all examples of descriptive research.
- 74) Creativity, critical thinking, and problem solving are all examples of the learning and innovation skills identified by Azzam and Graseck.
- 75) The Partnership for 21st Century Skills has created a framework that consists of five broad categories.
- 76) Financial literacy is a core subject in the Partnership for 21st Century Skills.
- 77) Teacher-oriented websites and blogs offer the best opportunity to share advice and observations.

Short Answer Write the word or phrase that best completes each statement or answers the question.

- 78) The discipline or field about learners, learning, and teaching.
- 79) The study of teaching and learning with application to the instructional process.
- 80) Teachers who do things for a reason, on purpose.
- 81) The degree to which teachers feel that their own efforts determine the success of their students.
- 82) Sets of principles and facts that attempt to explain some phenomenon.
- 83) Individual principles that have been thoroughly tested.
- 84) These explain relationships between factors.
- 85) A systematic procedure used to study the effects of a treatment.
- 86) The degree to which the results of a laboratory experiment can be directly attributed to the treatment studied rather than other factors.
- 87) A type of research in which a single participant's behavior may be observed over a period of time.
- 88) A type of research that explores the degree to which two variables are related.
- 89) A type of nonexperimental study aimed at systematically identifying and gathering detailed information about something.
- 90) When teachers think about the outcomes they desire in their lessons and how each decision made moves a student toward these objectives, what are they demonstrating?
- 91) A logical and systematic approach to dilemmas found in practice and research are essential in the development of which skill?
- 92) 21st century thinking and teaching skills can be traced back to the progressive philosophies of which individual?
- 93) What is the creation of a highly artificial, structured setting that exists for a brief period of time?
- 94) What is the most frequently used research method in educational psychology?

Essay

- 95) What personal and professional characteristics are necessary for effective teaching?
- 96) A teacher wants to know: Do students behave better in class when they help to create classroom rules or do they behave better when teachers create the rules alone? How would you go about setting up a study to answer this question?
- 97) Define and compare external validity and internal validity. Given your personal values, which do you feel is more important to emphasize in educational research? Explain the rationale for your choice.
- 98) You are interested in how teacher feedback on homework (e.g., "good going" or "more detail needed") influences the quality of subsequent homework. Describe how this question might be studied using each of the following: 1) laboratory experiment; 2) single-case experiment; and 3) randomized field experiment.
- 99) Give examples of relationships in the educational environment that would likely yield a positive correlation, a negative correlation, and no correlation. For each example, specify what kind of change in one variable is associated with what change in a second variable.
- 100) Describe a study you might conduct using a descriptive research design.
- 101) Consider the following research finding:

Finding A: It was reported that students who receive more homework obtain higher grades.

- Why is this type of research called correlational rather than experimental?
- How strongly does Finding A support the conclusion that spending time on homework causes students to obtain higher grades?

Now compare Finding A to the following:

Finding B: It was reported that students who own cell phones obtain higher grades.

- How strongly does Finding B support the conclusion that owning a cell phone results in more learning?
- In what way do these two findings differ? Does one tell us more than the other about how students achieve higher grades?

102) Mr. Duvall enters his classroom on the first day of the fall semester. This is his first year of teaching 10th grade English at Southview High School. Although he is a little nervous, he believes that his training at the state university and his student teaching experience have prepared him well for this day.

As he attempts to introduce himself to his new students, a group of students at the back of the room begins talking to each other in voices loud enough to disturb the class. He moves to the back of the classroom, thinking that his presence near the students will quiet them; however, when he gets within a short distance of the students, they talk louder.

There are several actions that Mr. Duvall can take and several theories to support his decision. Based on theories presented in the chapter, what do you think he should do and why? Write an ending to the story that demonstrates a positive solution to the problem.

103) Below is a chart for experimental, correlational, and descriptive research. Fill in the missing information, which is indicated by an X.

EXPERIMENTAL RESEARCH		
<i>Goals</i>	<i>Forms</i>	<i>Examples</i>
Test effectiveness of a treatment	Laboratory study	X
	Randomized field study	Teaching math using manipulatives is more effective than using traditional approaches
	Single Case Study	X

CORRELATIONAL RESEARCH		
<i>Goals</i>	<i>Forms</i>	<i>Examples</i>
Look for relationships between variables	Positive correlation	X
	X	The fewer days students are absent from school, the higher their math scores
	No Correlation	Student achievement in social studies and musical ability.

DESCRIPTIVE RESEARCH		
<i>Goals</i>	<i>Forms</i>	<i>Examples</i>
X	Surveys	Students are in favor of an open lunch.
	Interviews	Adolescent females describe themselves in positive terms.
	Ethnography	Study the meaning and consequence of desegregation at three high schools.

CHAPTER 1 ANSWER KEY

1) C	25) D	49) A	73) TRUE
2) D	26) B	50) A	74) TRUE
3) B	27) C	51) B	75) FALSE
4) C	28) D	52) B	76) TRUE
5) C	29) D	53) B	77) TRUE
6) D	30) B	54) C	78) educational psychology
7) A	31) C	55) D	79) pedagogy
8) B	32) A	56) B	80) intentional teachers
9) D	33) D	57) B	81) teacher efficacy
10) C	34) B	58) D	82) theories
11) D	35) C	59) TRUE	83) laws
12) C	36) B	60) FALSE	84) principles
13) C	37) D	61) FALSE	85) experiment
14) D	38) A	62) TRUE	86) internal validity
15) C	39) A	63) TRUE	87) single-case experiment
16) D	40) C	64) TRUE	88) correlational study
17) A	41) B	65) TRUE	89) descriptive study
18) D	42) B	66) FALSE	90) intentionality
19) A	43) D	67) TRUE	91) critical thinking
20) C	44) C	68) FALSE	92) John Dewey
21) B	45) C	69) FALSE	93) laboratory experiment
22) C	46) D	70) TRUE	94) correlational study
23) D	47) A	71) FALSE	
24) D	48) B	72) TRUE	

- 95) First and foremost, teachers need to possess subject matter knowledge (knowing what to teach) and pedagogical knowledge (knowing how to teach). Other personal qualities, such as warmth, humor, empathy, hard work, leadership, enthusiasm, a contagious love of learning, and speaking ability, are highly desirable, but are not enough. A meshing of all these professional and personal characteristics will most likely produce the strongest teachers.
- 96) The first step in the research process would be to create two groups using random assignment. Group one would consist of students who help make classroom rules. Group two would consist of students who did not participate in rule making. The teacher could then count the number of rule violations for each group, draw conclusions from the data, and answer the question as to which strategy is most effective.
- 97) Internal validity, which is established in laboratory experiments, allows the researcher to conclude that experimental outcomes are due to the effects of treatments and not of extraneous factors. High internal validity sometimes comes at the cost of external validity, which is the applicability of the findings to some real-life problem.
- 98) (1) Laboratory experiments require tight control. Students would be randomly assigned to an experimental group (comments) or a control group (no comments). Comments would be systematically given to the first group over time. The second group would complete identical assignments, but not receive comments. The assignments of both groups would be evaluated. (2) Single case experiments would involve one group of students. No comments on homework would be given. Results would be evaluated. Then, comments would be introduced and analyzed. (3) A randomized field experiment would involve two classes. The design would be the same as for the laboratory experiment, but methods would be more natural and less controlled.
- 99) An example of a positive correlation might be students whose achievement level increases as their hours of study increase. A negative correlation might be students whose achievement level decreases as their number of days absent increases. There is most likely no relationship between student achievement and shoe size.
- 100) A study could be conducted of life in well-funded and poorly funded schools, or of tracked or untracked middle schools. Research in developmental psychology is often descriptive in nature.

- 101) Both findings are correlational, because they show only that a change in one variable is associated with a change in another. They cannot show a cause/effect connection because they do not manipulate any treatment.

Neither finding tells us what causes students to obtain high grades. The difference between the studies is that a causal connection between spending time on homework and getting good grades (the incorrect interpretation of Finding A) is plausible, whereas the idea that owning cell phones causes high grades (incorrect interpretation of Finding B) is implausible. It is easier to see, looking at Finding B, that correlation does not prove causation; looking at Finding A it is very tempting to conclude (incorrectly) that a causal relationship has been demonstrated.

- 102) Mr. Duvall could reprimand the students (a reprimand is a form of punishment and the students would behave to avoid punishment), ignore their talking (calling attention to the talking could be a punishment), send the students to the office (depriving the students of their audience), or punish the whole class (get other students to be concerned about the talking).

- 103) A laboratory study example could be to study the effects of two groups; one group is rewarded for using felt markers while the other is not.

A single case study example could be to study how one student's behavior changes over time after the introduction of a contract for grade system.

An example of a positive correlation could be an increase in test scores with an increase in praise for hard work.

The fewer days students are absent from school, the higher their math scores is an example of a negative correlation.

The goal of descriptive research is to observe and describe events in a natural environment.

Chapter 2
COGNITIVE, LANGUAGE, AND LITERACY DEVELOPMENT