Instructor’s Resource Manual
for
Educational Psychology
Twelfth Edition

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Preface

Welcome to the twelfth edition of the Instructor’s Resource Manual for Woolfolk’s Educational Psychology. We hope that this manual serves as a useful teaching tool and resource as you prepare for your classes. We recognize that no two teachers or classrooms are alike, so it is our intent that you be inspired to modify these activities and slides to fit your teaching and your classroom. We encourage users to think of this manual as a starting point.

Online Instructor’s Manual

We have retained the layout of the eleventh edition of the Instructor’s Resource Manual. Activities, discussions, resources, and links to AnitaTalks podcasts are organized so as to correspond with the major subject headings in each chapter of the textbook and serve as the focal point for each chapter in the Instructor’s Resource Manual. We feel that this organization aligns the text and its resources in a way that helps synthesize all of the resources available for each chapter.

Each section is organized in the following order:

- **Activities.** Activities were chosen that support the learning objectives and promote student engagement and active learning. We recognize that each classroom is unique. Thus, we encourage users to modify activities based on the characteristics of their students. Referenced in each chapter are handouts that accompany some of the activities described in the manual; the handouts themselves are located at the end of the manual. The handouts can be photocopied as needed for distribution in classes that use the Educational Psychology textbook.

- **Discussion Questions.** Discussion questions were chosen to promote a deeper level of student engagement with the learning objectives. Some questions were chosen with the intention of helping students process the material in order to understand a given topic. Other questions are intended to promote rich discussion that helps students understand the complexity of a given topic and consider alternative views.

- **Other Resources.** Additional resources include links to websites or podcasts. Many of the podcasts are from Anita Woolfolk’s Anita Talks about Teaching series, and thus are especially pertinent to content from the text. Clicking on the link while pressing the “control” key on your keypad will take you to the site. Once at the site (http://anitatalks.wordpress.com), simply click on “Listen to the podcast” for the podcast you wish to access.
**Online PowerPoint Slides**

These visual aids display, summarize, and help explain core information presented in each chapter. PowerPoint slides relevant for each chapter’s content and suitable for in-class presentation are available to download at [www.pearsonhighered.com](http://www.pearsonhighered.com). To access the PowerPoint slides, enter the author, title, or ISBN; locate *Educational Psychology* (12th ed.); and click on the “Resources” tab.

Like the *Instructor’s Resource Manual*, the slides are arranged to be closely aligned with the text. Each set of slides begins with the learning objectives from the text followed by an outline of the chapter. They also include the *What Would You Do?* scenario from the textbook in order to set the stage for some of the issues addressed in each chapter.

**Acknowledgments**

We begin by extending our appreciation to Anita Woolfolk for the privilege of preparing an instructor’s resource manual for a truly seminal textbook in the field of educational psychology—one that has had a direct impact in preparing countless students for one of the noblest of professions: teaching. Anita has been most generous with feedback and has provided much encouragement and inspiration.

We would also like to thank Evan Straub, Ryan Poirier, Heather Davis, Mei-Lin Chang, Paige Shalter Bruening, and Eric Anderman for their direct inspiration and contributions to some of the activities included in this edition of the *Instructor’s Resource Manual* for Woolfolk’s *Educational Psychology*. Alicia Reilly at Pearson was especially responsive and supportive. We recognize that this work is largely an extension of those who have gone before us. Thus, we would like to extend a special thanks to editors of previous editions of the *Instructor’s Resource Manual*—Robin Rackley, Sarah Kozel Silverman, and Heather Dawson.

Lastly, we would like to thank our students—for they are the ones ultimately responsible for shaping the ideas and activities included in this manual. In some cases this took the form of trial and error as we modified activities to best promote learning. At other times, ideas may have been explicitly expressed by a student or two. The result is this manual—tested by our students for yours.

Mike Yough and Katherine Kovach
Chapter Objectives

After studying this chapter, students should be able to achieve the following:

1.1: Describe the key elements and requirements of the No Child Left Behind Act.
1.2: Discuss the essential features of effective teaching.
1.3: Describe the methods used to conduct research in the field of educational psychology.
1.4: Recognize key theories of development and learning that influence educational practice.

Learning and Teaching Today

Activities

Learning about NCLB

Many students have heard about the No Child Left Behind Act (NCLB), but they have never examined the impact of NCLB on everyday education. This activity may be used to help illustrate both Objective I and Objective VII. Ask students to collect two or three scholarly articles related to NCLB and summarize their findings in three main points. During the next class period, invite students to break out into groups of three to four to discuss their findings. They should be able to identify whether their findings matched their beliefs about NCLB and how they might use educational research to be informed policy consumers.

National Board of Professional Teaching Standards

Shulman’s characterization of expertise is described in the textbook. The National Board of Professional Teaching Standards has developed standards for what teachers should know and do. Have your students visit the Companion Website, Chapter 1, eConnect and Extend, “National Board of Professional Teaching Standards” (http://www.nbpts.org/standards/stds.cfm#downloadpdfs). Select a subject area and age range and download the standards for that group. How does the characterization of expert teaching seen here compare to that of Shulman?

Discussion Questions

The No Child Left Behind Act of 2001 has been the center of a great deal of controversy. What have you heard about this piece of legislation? Have you developed an opinion? If
so, what is your opinion and how did you develop it? If not, what more do you think you should know about NCLB?

We hear a lot from educators and politicians today about accountability. Should teachers’ jobs and salaries depend on how much their students learn? What would happen to curricula and attention to students’ differences?

Despite the length of service or expertise, the job of teaching is often the same. Should this be the case? What changes in a teacher’s job might occur as a function of increased experience or expertise?

Some students seem to perform well regardless of their teachers, while others seem to perform poorly even with excellent teachers. Do you think teachers make a difference for all students? Why or why not? How can you be sure you meet the needs of all students, regardless of ability?

Students often identify teachers who were not very personable or approachable as among their most effective teachers. Is it possible to be personable, caring, and effective? When would it be a liability to be personable or approachable? When would it be an advantage?

What is good teaching? How do you know what good teaching is? Do you have a plan for ensuring that your teaching is good? How will you know if you are successful? What could you do to get better?

Does good teaching make a difference? Has it made a difference in your learning, or perhaps in your life outside the classroom or in a career choice? How should effective teaching be assessed by administrators?

**Other Resources**


The National Board of Professional Teaching Standards: The goal of this organization is to raise teaching standards. [http://www.nbpts.org/](http://www.nbpts.org/)


**What Is Good Teaching?**
Activities

What Is Good Teaching? I

Objectives
- Students will recall their own teaching and learning experiences.
- Students will discuss what inspired them to become teachers.
- Students will discuss what made their own teachers good or bad and why.

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<tr>
<td>Ask students to divide into pairs and describe to each other what inspired them to become teachers (if relevant). If they are not planning to teach, ask them to discuss their intended profession.</td>
<td>Student pairs</td>
<td>5 minutes</td>
<td></td>
</tr>
<tr>
<td>Ask students to think about their own teachers and discuss what made them good or bad and why.</td>
<td>Student pairs</td>
<td>5 minutes</td>
<td></td>
</tr>
<tr>
<td>Ask students to consider what type of teacher they wish to be and how they intend to become that kind of teacher.</td>
<td>Student pairs</td>
<td>5 minutes</td>
<td></td>
</tr>
<tr>
<td>Return to the full group and ask students to describe characteristics of good and bad teachers. Look for commonalities and discuss them.</td>
<td>All students</td>
<td>15–20 minutes</td>
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</table>

Survey of Teacher Role
Have students rate each of the seven roles of teaching—motivator, manager, instructional expert, counselor, model, leader, and reflective professional—according to the degree of importance and strength in each role. Tabulate and summarize the findings for your sample. Have your students critique the interpretations that might be made of this summary. What could be misleading? Then have your students consider each of the seven roles of teaching in relation to their own perceptions of their teaching goals and abilities. Ask students who scored themselves high or low why they perceived themselves that way.

Differentiated Instruction
1) Have students identify the group they expect to teach.
2) Students then generate a list of the ways individuals in this group may differ from one another. Encourage students to consider such factors as cultural and ethnic background, SES, interests, ability level, and the type of instruction or learning activities individuals may prefer.
3) Have students generate a list of strengths associated with each item on their lists in terms of what individuals in this group bring to the classroom.
4) Have students form groups of three to four based on the groups they expect to teach.
5) In groups, students share their lists and discuss ways in which these strengths can be used in classrooms.

Beginning Teachers
1) Ask students to imagine that they will begin their first teaching assignment in a week. Does this make them anxious? What are some of their primary concerns?
2) Generate a list on the board/projector screen. Make two points:
   a. Their concerns are not unique—their peers and those who have gone before them have shared these same concerns.
   b. The content from the text will address many of these concerns.
3) Have students form groups of three to four to discuss strategies that would build their confidence.
4) Each group shares a few strategies with the larger class.

What Is Good Teaching? II
Show students a video clip of effective teachers (http://www.youtube.com/watch?v=2EdWgsTUhmI) and less-than-effective teachers (http://www.youtube.com/watch?v=dxPVvieptwA). Ask students to list the effective practices exhibited in the first video. Likewise, ask students to express why the second example illustrates less-than-effective teaching.

Discussion Questions
Is “good teaching” an art or a science?

Good teachers have been described as “a sage on the stage,” that is, an expert explainer, or as a “guide on the side,” or a great coach. Which is your view? Why?

Other Resources


The Role of Educational Psychology

Activities

Psychology and Education
Have your students read the following article:

Students should be in small groups of four to answer the following questions: What are the roles for education and psychology envisioned by E. L. Thorndike? [Two students should take responsibility for presenting the role of education, and the other two should present the role of psychology.] Have those roles changed? What kinds of methods did Thorndike recommend for use in research?

**Professional Development Plan**

**Objectives**
- Students will identify what constitutes scholarly research.
- Students will identify ways to acquire and interpret scholarly research.
- Students will identify ways to use educational research in their practice.

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<tr>
<td>If possible, plan a time with your students to visit your library and speak with a library specialist about ways to acquire your school’s professional journal holdings. If you cannot do so, be sure to compose a one-page summary to provide to students.</td>
<td>All students, independently</td>
<td>30–60 minutes in the library; 15–20 minutes for handout</td>
<td>Library-produced directors or instructor-produced directions for finding scholarly research</td>
</tr>
<tr>
<td>Students should select two or three pieces of scholarly research and identify ways they may be put to use in a classroom or other educational setting. This activity can be completed immediately after the library orientation, or individually if materials are accessible electronically.</td>
<td>All students, independently</td>
<td>20 minutes</td>
<td></td>
</tr>
<tr>
<td>Ask students to develop a professional development plan, one or two pages in length (or more), in which they identify how they will seek new educational research as practitioners, how they might evaluate such research, and how they will implement it.</td>
<td>All students, independently</td>
<td>30–60 minutes (can be outside of class)</td>
<td></td>
</tr>
<tr>
<td>As a class or in small groups, ask students to discuss what they learned from the activity. Ask them to answer the discussion questions related to professionalism and research.</td>
<td>All students</td>
<td>15 minutes</td>
<td></td>
</tr>
</tbody>
</table>

**What Research Has to Say**

Have your students consider the statement, “Students should be grouped according to ability.” How could they find out if this is true or false? What would it take to convince you of the truth of this statement? Assign students the task of locating an article in the
library that addresses this question. The directions should be deliberately ambiguous so that students return with a variety of types of articles (e.g., popular, research) that will provide the basis of a general discussion of what constitutes good evidence.

Research Jeopardy

Objectives

- Students will understand various types of research.
- Students will practice identifying applications of research methods.
- Students will approach research methodology in terms of key benefits and limitations.

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<tr>
<td>Select various types of research from Chapter 1. Design answers based upon each research method.</td>
<td></td>
<td>10 minutes</td>
<td>List of research methods and applications</td>
</tr>
<tr>
<td>Create a “Jeopardy” grid where answers are divided into categories and assigned a point value. The grid may be created in PowerPoint using a template or on a poster board using sticky notes to cover the answers. Write point values on the sticky notes and remove them when students have asked the correct questions.</td>
<td></td>
<td>30 minutes</td>
<td>Posterboard or PowerPoint slideshow</td>
</tr>
<tr>
<td>Divide students into two groups. Have students compete to answer questions; the team that wins can earn extra credit, or take charge of designing the next activity.</td>
<td>All students, divided into two groups</td>
<td>30 minutes</td>
<td></td>
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</table>

**Discussion Questions**

Define and differentiate purposes of educational psychology. In your opinion, can the study of educational psychology be helpful to teacher candidates and to practicing teachers?

New research on education is constantly conducted in an effort to better understand learning and improve teaching. How do you think teachers can use this research? How might teachers in classrooms and researchers collaborate? Do you think teachers can also be researchers? If so, how? If not, why not?

Indicate whether each of the studies described below is an experimental or correlational study and what could be learned from these.

- Instructors give three groups of children different types of computer training to determine which type of computer training is most effective in teaching word-processing skills.
Psychologists give fine-motor tests to a group of boys and girls to determine whether there is a relationship between sex and fine-motor dexterity.

Two groups of athletes begin a fitness program. To determine the impact of nutrition, sports psychologists give one group explicit instructions regarding nutrition while advising the other group to continue eating their regular diet.

**Other Resources**

Kinds of Research Primer: [http://linguistics.byu.edu/faculty/henrichsenl/ResearchMethods/RM_1_04.html](http://linguistics.byu.edu/faculty/henrichsenl/ResearchMethods/RM_1_04.html)

Test Bank
for

Educational Psychology
Twelfth Edition

Anita Woolfolk
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Prepared by
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PEARSON

Boston  Columbus  Indianapolis  New York  San Francisco  Upper Saddle River
Amsterdam  Cape Town  Dubai  London  Madrid  Milan  Munich  Paris  Montreal  Toronto
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Chapter 1: Learning, Teaching, and Educational Psychology

Multiple-Choice Questions

1) According to the Woolfolk text, which of the following is true of expert teachers?
A) They are more likely than novices to ignore students' wrong answers.
B) They take more time to solve problems.
C) They judge their success based on their students' achievements.
D) They have a limited and focused knowledge base.

Answer: C
Explanation: C) It is NOT true that experts deal with new events as new problems. In fact, the opposite is true in the sense that experts employ their prior knowledge to come up with efficient solutions to new problems. They also make good use of students’ wrong answers, are reflective about decisions, and have different ways of understanding the subject matter.
Page Ref: 11
Skill: Understanding

2) According to James Popham, the law No Child Left Behind
A) will not affect teachers in secondary education schools.
B) will shorted the length of the school year.
C) will affect the lives of teachers every day.
D) relates to only teachers who teach in rural areas.
E) will go into effect after January 2009.

Answer: C
Explanation: C) By the end of the 2005-2006 school year, all teachers must have core academic subjects and be "highly qualified.” The NCLBA will affect the lives of teachers everyday.
Page Ref: 6
Skill: Understanding

3) The concerns of educational psychology are distinctive in that they
A) are limited to the classroom.
B) do not overlap those of other fields of study.
C) have no place in the laboratory.
D) relate to improving learning and instruction.

Answer: D
Explanation: D) The concerns of educational psychology relate to improving learning and instruction. To achieve this objective, educational psychologists draw from other disciplines (e.g., psychology and sociology) and conduct research in both the classroom and the laboratory.
Page Ref: 12
Skill: Understanding

4) 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 experts from novices.

Answer: B
Explanation: B) Educational psychologists view the “common sense” approach to teaching as inappropriate or potentially misleading unless supported by research. As illustrated by the examples in the textbook, common sense ideas often do not work in the expected manner when applied in classrooms.
Page Ref: 13
Skill: Understanding

5) Research by Ogden, Brophy, and Evertson (1977) on selecting primary-grade students to read aloud suggests that the best method is to
A) ask for volunteers to read.
B) call on students in a prescribed order.
C) call on students at random.
D) have students read as a group (choral response).

Answer: B
Explanation: B) Research by Ogden, Brophy, and Evertson (1977) indicated that first graders achieved better when they were called upon to read in a prescribed order. Their interpretation was that the children would spend more time rehearsing when they were aware of the sections that they would be asked to read and would get more practice reading because they were not over-looked.
Page Ref: 13
Skill: Knowledge

6) Wong’s research indicated that when individuals read a research result, they tended 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 more information on the subject.

Answer: B
Explanation: B) Wong (1987) demonstrated that when subjects in her study were shown research results (whether or not correct) in writing, they had a greater tendency to believe that the results were obviously true.
Page Ref: 13-14
Skill: Knowledge

7) Research on acceleration for bright children suggests that acceleration is generally
A) beneficial for these children both academically and socially
B) beneficial for younger children but detrimental for older children.
C) detrimental for younger children but beneficial for older children.
D) harmful for children at all age/grade levels.

Answer: A
Explanation: A) Research summarized by Colangelo, Assouline, and Gross (2004) suggests that acceleration (skipping grades) is generally beneficial (and, at least, not harmful) for bright children.
8) When studies are based only on observations, the results should be expressed as  
A) cause-and-effect relationships.  
B) descriptions.  
C) principles.  
D) theories.

Answer: B
Explanation: B) When studies are based only on observations, the results must be expressed as descriptions of events. Descriptive studies rely on observational and subjective data. Correlational studies identify the relationship(s) among two or more variables for a specific group of people. Experimental studies require controlled, objective data in order to establish causal relationships.

9) A case study is an investigation of  
A) a small group of people with similar backgrounds.  
B) different groups of people over a period of time.  
C) one person or group over a specific period of time.  
D) people from one geographic area.

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.

10) 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) Correlation coefficients indicate both the strength and direction of relationships (e.g., strong positive or weak negative). Treatment effects are not involved in correlational research.

11) A researcher participates in a class over a two-month period and analyzes 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) Longitudinal

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.

Page Ref: 14
Skill: Understanding

12) A researcher concludes from his study that, on a typical school day, students spend only 50 percent of their time engaged in learning. What specific 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.

Page Ref: 14
Skill: Understanding

13) 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. [Note that, unless it is perfect, the correlation only suggests a tendency or pattern.]

Page Ref: 14
Skill: Knowledge

14) 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.
Page Ref: 14
Skill: Understanding

15) 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.
Page Ref: 14
Skill: Understanding

16) What type of correlation coefficient 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.
Page Ref: 14
Skill: Understanding

17) 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.
Page Ref: 15
18) 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.

Page Ref: 42
Skill: Understanding

19) 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: 14
Skill: Understanding

20) A researcher reports that students who have the highest test scores in school tend to be more involved in extracurricular activities than are other students. What specific type of research study must have been conducted?
A) Correlational
B) Descriptive
C) Ethnographic
D) Experimental

Answer: A
Explanation: A) The researcher conducted a *correlational study*. The purpose is to determine the relationship between test scores and extracurricular activities. Ethnographic studies are another specific type of descriptive research. NO treatment is being manipulated; thus, the research is NOT experimental.

Page Ref: 14-15
Skill: Understanding

21) 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.

Page Ref: 15
Skill: Knowledge

22) Which one of the following instances is MOST like a random sample 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.

Page Ref: 15
Skill: Understanding

23) 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.

Page Ref: 15
Skill: Understanding

24) What type of research participants should researchers use for studies of cause-and-effect relationships?
A) Controlled samples
B) Random samples
C) Related samples
D) Skilled samples

Answer: B
Explanation: B) Random assignments are critical for establishing cause-effect relationships. If such assignments are NOT employed, the researcher will be unable to determine whether treatment differences are caused by the treatments themselves or by the treatment groups being different in some important way that is related to the outcome being studied.
Page Ref: 15
Skill: Knowledge

25) 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: 15-16
Skill: Understanding

26) 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: 15-16
Skill: Understanding

27) An explanation of how we remember things that we have learned is called a
A) construct.
B) correlation.
C) principle.
D) theory.

Answer: D
Explanation: D) A theory is an explanation of behavior or human functioning, such as how we remember what we have learned or why we are motivated to do something.
Page Ref: 18
Skill: Knowledge

28) According to the law No Child Left Behind
A) research is not important for improving schools.
B) states have some say in defining "proficiency" for students
C) initial hypotheses about education which have not been tested can still improve educational practices.
D) mandates all teachers must conduct a research project on an annual basis.

Answer: B
Explanation: B) According to NCLBA scientifically based research based on rigorous research can produce valid and reliable results for improving education.
Page Ref: 6
Skill: Knowledge

29) According to the Point/Counterpoint discussion in Chapter 1, the following statement is true about what kind of research should guide education
A) Some researchers challenge the idea that educational research should be similar to research in medicine because humans in school settings are much too complex and function in frequently changing social environments.
B) Researchers agree educational research should be based on experimental trials, similar to medical studies.
C) Most researchers agree children in schools are over studied and too much research in taking place in school settings.
D) Most educational researchers agree teaching is an art and cannot be based on scientific research.

Answer: A
Explanation: A) David Olson (2004), Patti Lather (2002), and David Berliner (2004) are a few Educational Researchers who challenge the idea that educational research should be similar to research in medicine.
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30) According to Woolfolk, over time theories
A) have returned to the core ideas set forth years ago by Sigmund Freud.
B) have become less important in educational research and practice.
C) have become more systematic and scientific.
D) are less scientific compared to ten years ago.

Answer: C
Explanation: C) Theories are based on systematic and scientific research; they are the beginning and ending points of the research cycle.
Completion Questions

1) Schools are evaluated based on test schools, which indicate if their students are making _______.
   Answer: Adequately Yearly Progress (AYP)
   Page Ref: 6

2) Many educators believe that the mark of an expert teacher is the ability to be _______ demonstrated by frequently asking “how am I doing?”
   Answer: reflective
   Page Ref: 11

3) When beginning teachers confront everyday classroom life, they often experience _______.
   Answer: reality shock
   Page Ref: 11

4) The study of the processes of teaching and learning is the focus of the discipline of _______.
   Answer: educational psychology
   Page Ref: 12

5) The type of research that attempts to record what happens in classrooms without attempting to manipulate any variables is called _______ research.
   Answer: descriptive
   Page Ref: 14

6) A researcher who becomes a working member of a class over a period of time in order to record and gain understanding of the class dynamics is a(n) _______.
   Answer: participant observer
   Page Ref: 14

7) Research that is designed to determine the relations between two variables is a(n) _______ study.
   Answer: correlational
   Page Ref: 14

8) The type of research that attempts to establish cause and effect relationships is a(n) _______ study.
   Answer: experimental
   Page Ref: 15

9) Each person is given an equal opportunity to be in a treatment or control group by means of _______ sampling.
   Answer: random
   Page Ref: 15

10) Findings considered statistically unlikely to have occurred by chance are described as _______.
    Answer: significant
11) Broad frameworks that attempt to explain relationships between sets of variables are called _______.
Answer: theories
Page Ref: 18

12) When findings in a given area repeatedly support the same conclusion, a(n) _______ can be derived.
Answer: principle
Page Ref: 18

True/False Questions

1) Sanders and River’s (1996) research shows that the effects of good teaching produce additional achievement gains for lower-achieving students.
   Answer: TRUE
   Explanation: Researchers have found the effects of good teaching are cumulative and residual and have the most benefits for lower-achieving students.
   Page Ref: 7

2) As teachers’ experience grows, they tend to become more likely to judge their success by their students' successes.
   Answer: TRUE
   Page Ref: 11

3) Rigorous scientifically based research has been through a review by a journal or panel of experts
   Answer: TRUE
   Explanation: Reliable and valid results come from studies in which an independent group of experts review and evaluate the research question, methodology, and results.
   Page Ref: 18

4) The major concern of new teachers is that their knowledge of their subjects is limited.
   Answer: FALSE
   Page Ref: 11

5) Negative correlations are typically weaker than positive correlations.
   Answer: FALSE
   Page Ref: 14

6) A correlational study is a specific type of descriptive research.
   Answer: TRUE
   Page Ref: 14

7) Correlations provide a basis for making cause-effect interpretations.
   Answer: FALSE
8) A key element in a research experiment is random assignment of participants to groups.
   Answer: TRUE
   Page Ref: 15

9) A statistically significant result in experimental research indicates that the result is a true finding.
   Answer: FALSE
   Page Ref: 15

10) Principles are the product of consistency in research findings over time.
    Answer: TRUE
    Page Ref: 18

11) A theory is an explanation of occurrences in a given field.
    Answer: TRUE
    Page Ref: 18

12) According to Woolfolk, there are three theories available today to explain human development, motivation, and learning.
    Answer: FALSE
    Page Ref: 18

13) A correlational study is useful for helping to understand if one event causes another event to occur.
    Answer: FALSE
    Page Ref: 15

14) 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
    Page Ref: 15

Short Answer Questions

1) Discuss the problems or issues that most concern beginning teachers today. Which of those 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.
   Page Ref: 11-12

2) 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. For example a
teacher may derive a principle after noticing the effect of a specific classroom management strategy on student achievement. A theory is a teacher's explicit explanation about a phenomenon. For example, a teacher might development a prediction about why the classroom management impacts student achievement. Principles help in solving specific problems, whereas, theories provide a more broad framework for deriving new solutions to problems.

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3) Discuss the purposes and procedures of the discipline of educational psychology today. What are the interests of educational psychology with regard to theory vs. application and learning vs. teaching?

Answer: Educational psychology is concerned primarily with (a) understanding the processes of teaching and learning and (b) developing ways to improve these processes. Educational psychologists are interested in both learning and teaching. They recognize the distinction between learning as it is researched in the laboratory and teaching as it takes place in actual classroom settings. For this reason, they advocate testing the validity of learning theories outside the laboratory.

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4) Differentiate between descriptive and experimental research orientations with regard to purpose, methods, and the interpretation of results.

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. Relationships between variables are described by correlations. Experimental research involves randomization and use of a dependent variable (outcome) and independent variable (treatment). Experimental research may indicate cause-and-effect relationships, for example, would provide a teacher with directions or basic guidelines for how to react to different problems that occur. [The theory would not, however, dictate specific solutions, because every situation is unique.]

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5) 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 analyze what strategy the student used to try to add two fractions. The research 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 behavior would be "put under a microscope".

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

Answer: As a novice teacher, Jill's primary concerns will most likely be related to classroom management. She may also be concerned about motivating students and teaching students with individual differences. Knowing how to evaluate student work and dealing with parents may be issues of concern for Jill.

Page Ref: 11-12

2) 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 view her own success as a well-disciplined classroom environment, Ms. Ferguson is likely to view her own teaching success in relation to the achievements of her students.

Page Ref: 11-12

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.

3) 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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4) 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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5) 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 +.70 or higher).

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6) Briefly describe a study that would support a causal interpretation of the results. Explain why your study could be a cause-effect study.

Answer: A teacher may hypothesize that students' increase in math scores is not due to the cooperative learning situation, but that it is more closely related to students' reading ability. In this example, students would be randomly assigned to a cooperative learning group or a traditional lecture setting. In addition, students would be randomly assigned to a reading condition. In one reading condition the students had no additional reading assignments, while in the other condition students were required to read at least two books per week at home. Thus, the researcher can explore whether the cause of the difference in math scores is due to the teaching condition (cooperative learning or traditional lecture) or to the difference in reading.

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