THIRTEENTH EDITION

EDUCATIONAL
Psychology

ANITA WOOLFOLK

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THIRTEENTH EDITION

Educational Psychology

ANITA WOOLFOLK

The Ohio State University

To my mother,

Marion Wieckert Pratt.

A remarkable educator,
An adventurous world traveler,
A courageous advocate for all in need,
And a wonderful guide in life—

Thank you.

About the Author

So you will know your author a bit better, here is some information.

Anita Woolfolk Hoy was born in Fort Worth, Texas, where her mother taught child development at TCU and her father was an early worker in the computer industry. She is a Texas Longhorn—all her degrees are from the University of Texas, Austin, the last one a PhD. After graduating, she was a psychologist working with children in elementary and secondary schools in 15 counties of central Texas. She began her career in higher education as a professor of educational psychology at Rutgers University, and then moved to The Ohio State University in 1994. Today she is Professor Emerita at Ohio State. Anita's research focuses on motivation and cognition, specifically, students' and teachers' sense of efficacy and teachers' beliefs about education. For many years she was the editor of *Theory Into Practice,* a journal that brings the best ideas from research to practicing educators. With students and colleagues, she has published over 80 books, book chapters, and research articles. Anita has served as Vice-President for Division K (Teaching & Teacher Education) of the American Educational Research Association and President of Division 15 (Educational Psychology) of the American Psychological Association. Just before completing this thirteenth edition of *Educational Psychology,* she collaborated with Nancy Perry, University of British Columbia, to write the second edition of *Child Development* (Pearson, 2015), a book for all those who work with and love children.

Preface

Many of you reading this book are enrolled in an educational psychology course as part of your professional preparation for teaching, counseling, speech therapy, nursing, or psychology. The material in this text should be of interest to everyone who is concerned about education and learning, from the nursery school volunteer to the instructor in a community program for adults with disabilities. No background in psychology or education is necessary to understand this material. It is as free of jargon and technical language as possible, and many people have worked to make this edition clear, relevant, and interesting.

Since the first edition of *Educational Psychology* appeared, there have been many exciting developments in the field. The thirteenth edition continues to emphasize the educational implications and applications of research on child development, cognitive science, learning, motivation, teaching, and assessment. Theory and practice are not separated in the text, but are considered together. The book is written to show how information and ideas drawn from research in educational psychology can be applied to solve the everyday problems of teaching. To help you explore the connections between research and practice, you will find in these pages a wealth of examples, lesson segments, case studies, guidelines, and even practical tips from experienced teachers. As you read this book, I believe you will see the immense value and usefulness of educational psychology. The field offers unique and crucial knowledge to any who dare to teach and to all who love to learn.

NEW CONTENT IN THE THIRTEENTH EDITION

Across the book, there is increased coverage of a number of important topics. Some of these include:

- New explorations of current research on teaching and models of **expert teaching**, introduced in Chapter 1 and continued throughout the book.
- Increased coverage of the **brain, neuroscience, and teaching** emphasized in Chapter 2 and also integrated into several other chapters.
- Increased coverage of **the impact of technology and virtual learning environments** on the lives of students and teachers today.
- Increased emphasis on **diversity in today's classrooms** (see especially Chapters 1 to 6). Portraits of students in educational settings make diversity real and human for readers.

Key content changes in each chapter include:

- Chapter 1: My goal is that this text will provide the knowledge and skills that will enable you to build a solid foundation for an authentic sense of teaching efficacy in every context and for every student, so there is new information about **three models of good teaching**: Charlotte Danielson's Framework for Teaching, TeachingWorks from the University of Michigan, and the Gates Foundation Measure of Effective Teaching. Also, the section on research now examines different kinds of **qualitative and quantitative research** and what you can learn from each kind (see Table 1.2).
- Chapter 2: New information on the **brain**, **synaptic plasticity**, **executive functioning**, and **implications for teaching**, including an approach based on Vygotsky called *Tools of the Mind*.
- Chapter 3: New sections on **cultural differences in play**, **physical activity and students with disabilities**, **eating disorders** and the Web sites that promote them, **self-concept**, and Jonathan Haidt's **model of moral psychology**.
- Chapter 4: New sections on **nine possible multiple intelligences**, **accommodations under Section 504**, **autism spectrum disorders**, **student drug use**, and ways to **identify students who are gifted and talented**.

- Chapter 5: New information on **learning to read**, **emergent literacy and language diversity**, **sheltered instruction**, and **student-led conferences**.
- Chapter 6: New coverage of **homeless and highly mobile students**, expanded coverage of **poverty and school achievement**, **opportunity gaps**, and **stereotype threat**.
- Chapter 7: Expanded coverage of **teaching implications** of behavioral learning.
- Chapter 8: Updated coverage of **working memory**, **developmental differences**, and **teaching implications** of cognitive learning theories.
- Chapter 9: Updated sections on **metacognition** and **learning strategies**, **creativity**, and **transfer**, and a new section on **Paul and Elder's model of critical thinking**.
- Chapter 10: New material on **inquiry learning** and **teaching in a digital world**, including **Betty's Brain**—an example of a virtual learning environment, the **use of games** in teaching, and the initiative to teach **computational thinking and coding**.
- Chapter 11: Updated coverage of **self-efficacy**, **self-regulated learning**, and new material on **emotional self-regulation**.
- Chapter 12: Updated treatment of **self-determination theory** and **goal theory**, expanded coverage of **helping students cope with anxiety**, and new material on **flow** and **motivation**.
- Chapter 13: New sections on understanding your **beliefs about classroom management**, **creating caring relationships**, **bullying**, **restorative justice**, **and** Marvin Marshall's views on **consequences and penalties**.
- Chapter 14: Recent **research on teaching**, as well as new sections on the **Common Core** and **Understanding by Design**.
- Chapter 15: New sections on **what teachers think** about high-stakes testing, **value-added assessment**, and **PARCC tests**.

A CRYSTAL CLEAR PICTURE OF THE FIELD AND WHERE IT IS HEADED

The thirteenth edition maintains the lucid writing style for which the book is renowned. The text provides accurate, up-to-date coverage of the foundational areas within educational psychology: learning, development, motivation, teaching, and assessment, combined with intelligent examinations of emerging trends in the field and society that affect student learning, such as student diversity, inclusion of students with special learning needs, education and neuroscience, educational policy, and technology.

FEATURES OF THE BOOK

Advances in Digital Technologies Reflected in the Book's Pedagogy

Resources available in the etext enable readers to observe development in context and to apply and assess their understanding of the concepts in the book. These resources include (a) embedded assessments with feedback and (b) content extensions and examples.

EMBEDDED ASSESSMENTS WITH FEEDBACK. In every chapter, readers will find three types of assessments: Self-check quizzes, application exercises, and a licensure practice exercise.

- Short self-check quizzes appear at the end of each major text section. The quizzes are designed to help readers assess their mastery of the learning outcome or outcomes covered in the sections they've just read. When readers of the etext click on a highlighted link in the Pearson etext, an interactive multiple-choice quiz is displayed. Readers may answer the questions and then submit their quizzes to be scored, after which they can see the questions they've answered correctly, the questions they've answered incorrectly, and written feedback that includes rationales for the correct and incorrect answers.

ENHANCEDetext *self-check*

- Application exercises, titled *Practice Using What You Have Learned,* are included after the summary in every chapter. Clicking on the "play" button in the Pearson etext opens the exercise, allowing readers to view a video and answer open-ended questions that encourage application of chapter content to teaching and learning in real classrooms. After readers submit their answers to these questions, they receive feedback in the form of model answers written by experts.

PRACTICE USING WHAT YOU HAVE LEARNED

To access and complete the exercises, click the play buttons on the images below.

Using Research to Understand and Improve Teaching   Effective Teaching

ENHANCEDetext *application exercise*   ENHANCEDetext *application exercise*

- Licensure practice exercises, titled *Connect and Extend to Licensure,* are modeled after the types of questions found on teacher licensure exams. At the end of each chapter, these exercises include multiple-choice questions on key concepts presented in the chapter and constructed-response questions based on a short written case. Clicking on the licensure exam link allows readers to enter their responses and receive expert feedback.

CONNECT AND EXTEND TO LICENSURE

MULTIPLE-CHOICE QUESTIONS

1. Mr. Winstel was worried about his former star student, Ramon. As the seventh-grade year progressed, Ramon was frequently being called into the principal's office for skateboard stunts that broke school rules and bordered on dangerous. Recently, Ramon's parents contacted Mr. Winstel to alert him to the fact that Ramon had been skipping school to hang out with some older boys in the neighborhood. Which of the following answers would typically best describe what is happening with Ramon?
   A. Ramon's culture demands that boys of his age begin to engage in behaviors that reflect fearlessness.
   B. Ramon's limbic system is maturing, but his prefrontal lobe has not yet caught up.
   C. Ramon is engaging in deviant behaviors as a cry for attention from his parents.
   D. Ramon is undergoing a period of synaptic pruning, which causes adolescents to engage in risk-taking behavior.

2. Miss McClintock discovered that five of the children in her class were developmentally advanced. All of the students' language skills were exploding! Although many of the students still had trouble sharing, a few appeared to understand that by sharing, everyone could be happy. Finally, there was even one child who could solve conservation problems. According to Piagetian theory, in what stage are the students in Miss McClintock's class?
   A. Formal Operations
   B. Concrete Operations
   C. Preoperational
   D. Sensorimotor

3. In introducing students to persuasive advertising methods, which of the following approaches would be most apt to lead to student retention?
   A. Determine what students already know about the topic, and connect new information to their prior knowledge.

   B. Have students initially watch several commercials and take notes.
   C. Lecture students on the major persuasive techniques, and have a quiz to assess learning.
   D. Have students form groups to research persuasive techniques.

4. Research studies involving the brain and learning indicate all but which one of the following statements is true?
   A. There is no such thing as "left-brain" and "right-brain" thinking.
   B. The production of new neurons continues into adulthood.
   C. Using different modalities for instruction and activities that draw on different senses may support learning.
   D. Pruning can damage heavily used cognitive pathways.

CONSTRUCTED-RESPONSE QUESTIONS

Case

When planning for instruction, Mr. Gething remembered that students should be neither bored nor frustrated. Although this made sense to him, he was unsure how he would compensate for the diverse group of students he had in his second-period language arts class. Some students had difficulty with the English language, and other students planned to participate in the school's annual Shakespearean play. He knew that by grouping students of mixed ability, he could occasionally draw on the talents of his knowledgeable students to assist the less-advanced students. He also understood that without guidelines, students might not accomplish anything.

5. Explain the theory of learning Mr. Gething is initially drawing on, and identify the individual credited with it.
6. What is the term for the assistance that the more knowledgeable class members may provide to the less-advanced students in order for them to succeed? List some strategies these students might use to assist their peers.

ENHANCEDetext *licensure exam*

CONTENT EXTENSIONS AND EXAMPLES. This enhanced etext includes both videos and podcasts that extend and expand on the chapter content.

- The video examples allow readers to see many concepts and principles *in action*—for instance, in students' behaviors and verbal reflections, in teachers' classroom strategies, and in adult–child interactions.
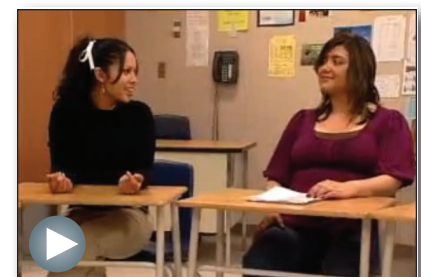
Video 1.1
A bilingual teacher conducts a discussion with immigrant high school students. She asks students to discuss what teachers can do to help English learners and students from different cultures.

ENHANCEDetext *video example*

- The *AnitaTalks* podcasts are direct links to relevant selections from *Anita Talks about Teaching,* a series of podcasts in which Dr. Woolfolk discusses how chapters of this text relate to the profession of teaching.

PODCAST 1.1
In this podcast, textbook author Anita Woolfolk talks about the importance of teachers in students' lives. Did you know that "teacher involvement and caring is the most significant predictor of a student's engagement in school from 1st grade through 12th grade?" Listen to learn more.

ENHANCEDetext *podcast*

Additional Text Features

With an unswerving emphasis on educational psychology's practical relevance for teachers and students in classrooms, the text is replete with current issues and debates, examples, lesson segments, case studies, and practical ideas from experienced teachers.

POINT/COUNTERPOINT
What Should Schools Do to Encourage Students' Self-Esteem?

There are over 2,000 books describing how to increase self-esteem. Schools and mental health facilities continue to develop self-esteem programs (Slater, 2002). The attempts to improve students' self-esteem have taken three main forms: personal development activities such as sensitivity training; self-esteem programs where the curriculum focuses directly on improving self-esteem; and structural changes in schools that place greater emphasis on cooperation, student participation, community involvement, and ethnic pride. Are these efforts valuable?

POINT The self-esteem movement has big problems. Some people have accused schools of developing programs where the main objective is "to dole out a huge heaping of praise, regardless of actual accomplishments" (Slater, 2002, p. 45). Frank Pajares and Dale Schunk (2002) point to another problem. "[W]hen what is communicated to children from an early age is that nothing matters quite as much as how they feel or how confident they should be, one can rest assured that the world will sooner or later teach a lesson in humility that may not easily be learned. An obsession with one's sense of self is responsible for an alarming increase in depression and other mental difficulties" (p. 16). Sensitivity training and self-esteem courses assume that we encourage self-esteem by changing the individual's beliefs,

Self-Esteem," suggests that we rethink self-esteem and move toward honest self-appraisal that will lead to self-control. She suggests, "Maybe self-control should replace self-esteem as a primary peg to reach for" (p. 47).

COUNTERPOINT The self-esteem movement has promise Erik Erikson (1980) warned years ago: "Children cannot be fooled by empty praise and condescending encouragement. They may have to accept artificial bolstering of their self-esteem in lieu of something better. . . ." Erikson explained that a strong and positive identity comes only from "wholehearted and consistent recognition of real accomplishment, that is, achievement that has meaning in their culture" (p. 95). A study that followed 322 sixth-grade students for 2 years found that students' satisfaction with school, their sense that classes were interesting and teachers cared, and teacher feedback and evaluations influenced students' self-esteem. In PE, teachers' opinions were especially powerful in shaping students' conceptions of their athletic abilities (Hoge, Smit, & Hanson, 1990). Being placed in a low-ability group or being held back in school seems to have a negative impact on students' self-esteem, but learning in collaborative and cooperative settings seems to have a positive effect (Covington, 1992; Deci & Ryan, 1985). Interestingly, special pro-

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Point/Counterpoint sections in each chapter present two perspectives on a controversial question related to the field; topics include debates on the kinds of research that should guide education (p. 19), brain-based education (p. 40), the self-esteem movement (p. 104), pills or skills for students with ADHD (p. 144), the best way to teach English language learners (p. 193), tracking (p. 220), using rewards to encourage student learning (p. 280), what's wrong with memorization (p. 318), teaching critical thinking and problem solving (p. 358), problem-based education (p. 383), teacher efficacy (p. 423), the value of trying to make learning entertaining (p. 464), zero tolerance (p. 514), homework (p. 546), and holding children back (p. 590).

GUIDELINES
Helping Children of Divorce

Take note of any sudden changes in behavior that might indicate problems at home.
Examples
1. Be alert to physical symptoms such as repeated headaches or stomach pains, rapid weight gain or loss, fatigue, or excess energy.
2. Be aware of signs of emotional distress such as moodiness, temper tantrums, or difficulty in paying attention or concentrating.
3. Let parents know about the students' signs of stress.

Talk individually to students about their attitude or behavior changes. This gives you a chance to find out about unusual stress such as divorce.
Examples
1. Be a good listener. Students may have no other adult willing to hear their concerns.
2. Let students know you are available to talk, and let the student set the agenda.

Watch your language to make sure you avoid stereotypes

3. The student may be angry with his or her parents, but may direct the anger at teachers. Don't take the student's anger personally.

Find out what resources are available at your school.
Examples
1. Talk to the school psychologist, guidance counselor, social worker, or principal about students who seem to need outside help.
2. Consider establishing a discussion group, led by a trained adult, for students whose parents are going through a divorce.

Be sensitive to both parents' rights to information.
Examples
1. When parents have joint custody, both are entitled to receive information and attend parent–teacher conferences.
2. The noncustodial parent may still be concerned about the child's school progress. Check with your principal about state laws regarding the noncustodial parent's rights.

Guidelines appear throughout each chapter, providing concrete applications of theories or principles discussed. See, for example, pages 85, 198, 320.

GUIDELINES
Family and Community Partnerships

Promoting Transfer

Keep families informed about their child's curriculum so they can support learning.
Examples
1. At the beginning of units or major projects, send a letter summarizing the key goals, a few of the major assignments, and some common problems students have in learning the material for that unit.
2. Ask parents for suggestions about how their child's interests could be connected to the curriculum topics.
3. Invite parents to school for an evening of "strategy learning." Have the students teach their family members one of the strategies they have learned in school.

Give families ideas for how they might encourage their children to practice, extend, or apply learning from school.
Examples
1. To extend writing, ask parents to encourage their children to write letters or e-mails to companies or civic organizations asking for information or free products. Provide a shell letter form for structure and ideas, and include addresses of companies that provide free samples or information.
2. Ask family members to include their children in some projects that require measurement, halving or doubling recipes, or estimating costs.

3. Suggest that students work with grandparents to do a family memory book. Combine historical research and writing.

Show connections between learning in school and life outside school.
Examples
1. Ask families to talk about and show how they use the skills their children are learning in their jobs, hobbies, or community involvement projects.
2. Ask family members to come to class to demonstrate how they use reading, writing, science, math, or other knowledge in their work.

Make families partners in practicing learning strategies.
Examples
1. Focus on one learning strategy at a time. Ask families to simply remind their children to use a particular strategy with homework that week.
2. Develop a lending library of books and videotapes to teach families about learning strategies.
3. Give parents a copy of the *Guidelines: Becoming an Expert Student* on page XXX, rewritten for your grade level.

Guidelines: Family and Community Partnerships sections offer specific guidelines for involving all families in their children's learning—especially relevant now, when demand for parental involvement is at an all-time high and the need for cooperation between home and school is critical. See, for example, pages 49, 200, 362.

Teachers' Casebook sections present students with realistic classroom scenarios at the beginning of each chapter and ask "What Would You Do?"—giving students the opportunity to apply all the important topics of the chapter to these scenarios via application questions. Students may then compare their responses to those of veteran teachers appearing at the end of each chapter. See, for example, pages 30, 208, 410.

> ### TEACHERS' **CASEBOOK**
> **WHAT WOULD YOU DO?** UNCRITICAL THINKING
> This year's class is worse than any you've ever had. You assigned a research paper, and you find more and more students are using the Web for their information. In itself, using the Web is not bad, but the students appear to be completely uncritical about what they find on the Internet. "If it is on the Web, it must be right" is the attitude of most students. Their first drafts are filled with quotes that seem very biased to you, but there are no sources cited or listed. It is not just that students don't know how to reference their work. You are more concerned that they cannot critically evaluate what they are reading. And all they are reading is the Net!
>
> **CRITICAL THINKING**
> - How would you help your students evaluate the information they are finding on the Web?
> - Beyond this immediate issue, how will you help students think more critically about the subjects you are teaching?
> - How will you take into account the cultural beliefs and values of your students as you support their critical thinking?

Reaching Every Student sections present ideas for assessing, teaching, and motivating ALL of the students in today's inclusive classrooms. See, for example on page 65.

> **Reaching Every Student: Teaching in the "Magic Middle"**
> Both Piaget and Vygotsky probably would agree that students need to be taught in the magic middle (Berger, 2012), or the place of the "match" (J. Hunt, 1961)—where they are neither bored nor frustrated. Students should be put in situations where they have to reach to understand but where support from other students, learning materials, or the teacher is also available. Sometimes the best teacher is another student who has just figured out how to solve the problem, because this student is probably operating in the learner's ZPD. Having a student work with someone who is just a bit better at the activity would be a good idea because both students benefit in the exchange of explanations, elaborations, and questions. In addition, students should be encouraged to use language to organize their thinking and to talk about what they are trying to accomplish. Dialogue and discussion are important avenues to learning (Karpov & Bransford, 1995; Kozulin & Presseisen, 1995; Wink & Putney, 2002). The *Guidelines: Applying Vygotsky's Ideas in Teaching* on the next page gives more ideas for applying Vygotsky's insights.

Lessons for Teachers are succinct and usable principles for teaching based on the research. See, for example, on page 66.

> **Cognitive Development: Lessons for Teachers**
> In spite of cross-cultural differences in cognitive development and the different theories of development, there are some convergences. Piaget, Vygotsky, and more recent researchers studying cognitive development and the brain probably would agree with the following big ideas:
>
> 1. Cognitive development requires both physical and social stimulation.
> 2. To develop thinking, children have to be mentally, physically, and linguistically active. They need to experiment, talk, describe, reflect, write, and solve problems. But they also benefit from teaching, guidance, questions, explanations, demonstrations, and challenges to their thinking.
> 3. Teaching students what they already know is boring. Trying to teach what the student isn't ready to learn is frustrating and ineffective.
> 4. Challenge with support will keep students engaged but not fearful.

SUPPLEMENTS

This thirteenth edition of *Educational Psychology* provides a comprehensive and integrated collection of supplements to assist students and professors alike in maximizing learning and instruction. Together, these materials immerse students in the content of the text, allowing them and their instructors to benefit from a deeper and more meaningful learning experience. The following resources are available for instructors to download from www.pearsonhighered.com/educator. Enter the author, title of the text, or the ISBN number, then select this text, and click on the "Resources" tab. Download the supplement you need. If you require assistance in downloading any resources, contact your Pearson representative.

INSTRUCTOR'S RESOURCE MANUAL. The *Instructor's Resource Manual* synthesizes all of the resources available for each chapter and sifts through the materials to match the delivery method (e.g., semester, quarter) and areas of emphasis for the course. This manual includes activities and strategies designed to help prospective teachers—and others seeking a career working with children or adolescents—to apply the developmental concepts and strategies they have learned.

POWERPOINT® SLIDES. Slide sets for each chapter include chapter objectives, key concepts, summaries of content, and graphic aids, each designed to support class lectures and help students organize, synthesize, and remember core content. All PowerPoint® slides have been updated for consistency and reflect current content in this new edition.

TEST BANK. Built from the course objectives, the test bank questions offer both lower-level questions that ask students to identify or explain concepts, principles, and theories about development and higher-level questions that require students to apply concepts, principles, and theories to student behavior and teaching strategies.

TESTGEN®. TestGen is a powerful test generator available exclusively from Pearson Education publishers. You install TestGen on your personal computer (Windows or Macintosh) and create your own tests for classroom testing and for other specialized delivery options, such as over a local area network or on the Web. A test bank, which is also called a Test Item File (TIF), typically contains a large set of test items, organized by chapter and ready for your use in creating a test, based on the associated textbook material. Assessments may be created for both print and testing online.

The tests can be downloaded in the following formats:

TestGen Testbank file—PC
TestGen Testbank file—MAC
TestGen Testbank—Blackboard 9 TIF
TestGen Testbank—Blackboard CE/Vista (WebCT) TIF
Angel Test Bank (zip)
D2L Test Bank (zip)
Moodle Test Bank
Sakai Test Bank (zip)

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Special Features

POINT/COUNTERPOINT

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1 | LEARNING, TEACHING, AND EDUCATIONAL PSYCHOLOGY

TEACHERS' CASEBOOK

WHAT WOULD YOU DO? LEAVING NO STUDENT BEHIND

It is your second year as a teacher in the Davis East school district. Over the last 4 years, the number of students from immigrant families has increased dramatically in your school. In your class, you have two students who speak Somali, one Hmong, one Farsi, and three Spanish speakers. Some of them know a little English, but many have very few words other than "OK." If there had been more students from each of the language groups, the district would have given your school additional resources and special programs in each language, providing you extra help, but there are not quite enough students speaking most of the languages to meet the requirements. In addition, you have several students with special needs; learning disabilities, particularly problems in reading, seem to be the most common. Your state and district require you to prepare *all* your students for the achievement tests in the spring, and the national emphasis is on readiness for college and career by the end of high school—*for everyone*. Your only possible extra resource is a student intern from the local college.

CRITICAL THINKING

- What would you do to help all your students to progress and prepare for the achievement tests?
- How would you make use of the intern so that both she and your students learn?
- How could you involve the families of your non-English–speaking students and students with learning disabilities to support their children's learning?
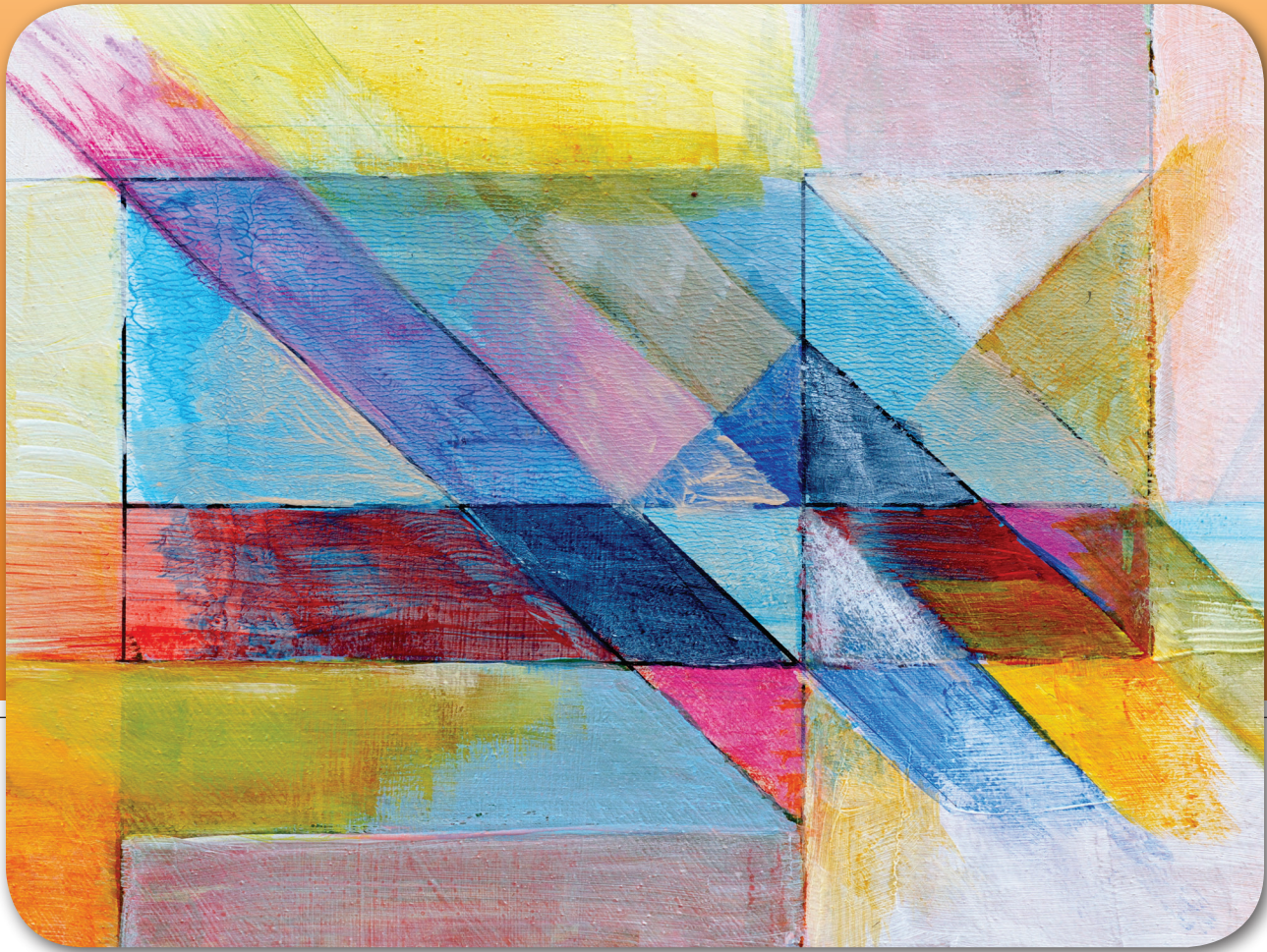
OVERVIEW AND OBJECTIVES

Like many students, you may begin this course with a mixture of anticipation and wariness. Perhaps you are required to take educational psychology as part of a program in teacher education, speech therapy, nursing, or counseling. You may have chosen this class as an elective. Whatever your reason for enrolling, you probably have questions about teaching, schools, students—or even about yourself—that you hope this course may answer. I have written the 13th edition of *Educational Psychology* with questions such as these in mind.

In this first chapter, we begin with the state of education in today's world. Teachers have been both criticized as ineffective and lauded as the best hope for young people. Do teachers make a difference in students' learning? What characterizes good teaching—how do truly effective teachers think and act? What do they believe about student, learning, and themselves? Only when you are aware of the challenges and possibilities of teaching and learning today can you appreciate the contributions of educational psychology.

After a brief introduction to the world of the teacher, we turn to a discussion of educational psychology itself. How can principles identified by educational psychologists benefit teachers, therapists, parents, and others who are interested in teaching and learning? What exactly is the content of educational psychology, and where does this information come from? Finally, we consider an overview of a model that organizes research in educational psychology to identify the key student and school factors related to student learning (J. Lee & Shute, 2010). My goal is that you will become a confident and competent beginning teacher, so by the time you have completed this chapter, you should be able to:

Objective 1.1   Describe the key elements of and changes to the No Child Left Behind Act.

Objective 1.2   Discuss the essential features of effective teaching, including different frameworks describing what good teachers do.

Objective 1.3   Describe the methods used to conduct research in the field of educational psychology and the kinds of questions each method can address.

Objective 1.4   Recognize how theories and research in development and learning are related to educational practice.

LEARNING AND TEACHING TODAY

Welcome to my favorite topic—educational psychology—the study of development, learning, motivation, teaching, and assessment in and out of schools. I believe this is the most important course you will take to prepare for your future as an educator in the classroom or the consulting office, whether your "students" are children or adults learning how to read or individuals discovering how to improve their diets. In fact, there is evidence that new teachers who have course work in development and learning are twice as likely to stay in teaching (National Commission on Teaching and America's Future, 2003). This may be a required course for you, so let me make the case for educational psychology, first by introducing you to classrooms today.

Students Today: Dramatic Diversity and Remarkable Technology

Who are the students in American classrooms today? Here are a few statistics about the United States and Canada (Children's Defense Fund, 2012; Dewan, 2010; Freisen, 2010; Meece & Kurtz-Costes, 2001; National Center for Child Poverty, 2013; National Center for Education Statistics, 2013; U.S. Census Bureau, 2010a).

- In 2010, 13% of the people living in the United States were born outside of the United States, and 20% spoke a language other than English at home—about 60% of these families spoke Spanish. Today, about 22% of children under the age of 18 are Latino. By 2050, Latinos will comprise about one quarter of the U.S. population (U.S. Census Bureau, 2010b).

  - In Canada, projections are that by 2031, one in three Canadians will belong to a visible minority, with South Asians being the largest group represented. About 17% of the population report that their first language is not French or English but instead is one of over 100 other languages.

  - In the 2011–2012 school year, about 60% of students with disabilities spent most of their time in general education classrooms.

  - In America, more than 16 million children—about 22% of all children—live in poverty, defined in 2013 by the U.S. Department of Health and Human Services as an income of $23,550 for a family of four ($29,440 in Alaska and $27,090 in Hawaii). Of those over 16 million, over 7 million live in extreme poverty. The United States has the *second highest* rate of child poverty among the economically advantaged countries of the world. Only Romania has a higher rate of child poverty. Iceland, the Scandinavian countries, Cyprus, and the Netherlands have the lowest rates of child poverty, about 7% or less (UNICEF, 2012; U.S. Census Bureau, 2011a).

  - The average wealth of White households is 18 times the wealth of Hispanic households and 20 times higher than Black households. These are the largest gaps observed since these data were first published a quarter century ago (Children's Defense Fund, 2012).

  - About one in six American children have a mild-to-severe developmental disability such as speech and language impairments, intellectual disabilities, cerebral palsy, or autism (Centers for Disease Control, 2013).

  - Out of 100 graduates in the high school class of 2013, about 71 had experienced physical assault; 51 had used alcohol, cigarettes, or illicit drugs in the previous 30 days, and 7 smoked marijuana every day; 48 were sexually active, but only 27 used condoms the last time they had sex; 39 had been bullied physically or emotionally; 20 watched 4 hours or more of television every day; 17 were employed; 16 had carried a weapon in the previous year; 12 had attention-deficit hyperactivity disorder (ADHD); and 4 had an eating disorder (Child Trends, 2013).

In contrast, because of the effects of mass media, these diverse students share many similarities today, particularly the fact that most are far more technologically literate than their teachers. For example:

- Infants to 8-year-olds spend an average of almost 2 hours each day watching TV or videos, 29 minutes listening to music, and 25 minutes working with

computers or computer games. In 2013, 75% of homes with children under age 8 had a smartphone, tablet, or other mobile device (Common Sense Media, 2012, 2013).

- Among teens, 77% have a cell phone; about one third of these are smartphones. And 90% of 13- to 17-year-olds use social media (Common Sense Media, 2012).

These statistics are dramatic but a bit impersonal. As a teacher, counselor, recreational worker, speech therapist, or family member, you will encounter real children. In this book, you will meet many individuals such as Felipe, a fifth-grade boy from a Spanish-speaking family who is working to learn school subjects and make friends in a language that is new to him; Ternice, an outspoken African American girl in an urban middle school who is hiding her giftedness; Benjamin, a good high school athlete diagnosed with ADHD whose wealthy parents have very high expectations for him and his teachers; Trevor, a second-grade student who has trouble with the meaning of *symbol*; Allison, head of a popular clique and tormentor of the outcast Stephanie; Davy, a shy, struggling reader who is already falling behind in all his second-grade work; Eliot, a bright sixth-grade student with severe learning disabilities; and Jessie, a student in a rural high school who just doesn't seem to care about her sinking grade-point average (GPA) or school in general.

Even though students in classrooms are increasingly diverse in race, ethnicity, language, and economic level, teachers are much less diverse—the percentage of White teachers is increasing (now about 91%), while the percentage of Black teachers is falling, down to about 7%. Clearly, it is important for all teachers to know and be able to work effectively with all their students. Several chapters in this book are devoted to understanding these diverse students. In addition, many times within each chapter, we will explore student diversity and inclusion through research, cases, and practical applications.

Confidence in Every Context

Schools are about teaching and learning; all other activities are secondary to these basic goals. But teaching and learning in the contexts just described can be challenging for both teachers and students. This book is about understanding the complex processes of development, learning, motivation, teaching, and assessment so that you can become a capable and confident teacher.

Much of my own research has focused on **teachers' sense of efficacy**, defined as a teacher's belief that he or she can reach even difficult students to help them learn. This confident belief appears to be one of the few personal characteristics of teachers that predict student achievement (Çakıroğlu, Aydın, & Woolfolk Hoy, 2012; Tschannen-Moran & Woolfolk Hoy, 2001; Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998; Woolfolk & Hoy, 1990; Woolfolk Hoy, Hoy, & Davis, 2009). Teachers with a high sense of efficacy work harder and persist longer even when students are difficult to teach, in part because these teachers believe in themselves and in their students. Also, they are less likely to experience burnout and more likely to be satisfied with their jobs (Fernet, Guay, Senécal, & Austin, 2012; Fives, Hamman, & Olivarez, 2005; Klassen & Chiu, 2010).

I have found that prospective teachers tend to increase in their personal sense of efficacy as a consequence of completing student teaching. But sense of efficacy may decline after the first year as a teacher, perhaps because the support that was there for you in student teaching is gone (Woolfolk Hoy & Burke-Spero, 2005). Teachers' sense of efficacy is higher in schools when the other teachers and administrators have high expectations for students and the teachers receive help from their principals in solving instructional and management problems (Capa, 2005). Another important conclusion from our research is that efficacy grows from real success with students, not just from the moral support or cheerleading of professors and colleagues. Any experience or training that helps you succeed in the day-to-day tasks of teaching will give you a foundation for developing a sense of efficacy in your career. This book was written to provide the knowledge and skills that form a solid foundation for an authentic sense of efficacy in teaching.

High Expectations for Teachers and Students

On January 8, 2002, President George W. Bush signed into law the No Child Left Behind (NCLB) Act. Actually, NCLB was the most recent authorization of the Elementary and Secondary Education Act (ESEA), first passed in 1965. In a nutshell, NCLB required that all students in grades 3 through 8

and once more in high school must take annual standardized achievement tests in reading and mathematics. In addition, they must be tested in science—one test a year in each of three grade spans (3 to 5, 6 to 9, 10 to 12). Based on these test scores, schools were judged to determine if their students were making adequate yearly progress (AYP) toward becoming proficient in the subjects tested. States had some say in defining proficiency and in setting AYP standards. But no matter how states defined these standards, NCLB required that all students must reach proficiency by the end of the 2013–2014 school year. Schools also had to develop AYP goals and report scores separately for several groups, including racial and ethnic minority students, students with disabilities, students whose first language is not English, and students from low-income homes.

For a while, NCLB dominated education. Testing expanded. Often schools and teachers were punished if they did not perform; NCLB was widely criticized. "To date, NCLB's test based accountability and status bar, 100% proficiency targets have been blunt instruments, generating inaccurate performance results, perverse incentives, and unintended negative consequences" (Hopkins et al., 2013, p. 101). For example, expecting students whose first language is not English to perform at the same level as native speakers on tests given in English set the students up for failure and frustration. Under NCLB, too many schools were labeled as failing. Many educators suggested that accountability measures should focus on growth, not a narrow definition of achievement (McEachin & Polikoff, 2012).

NCLB was supposed to be reauthorized in 2007 or 2008. On March 13, 2010, the Obama Administration released *A Blueprint for Reform: The Reauthorization of the Elementary and Secondary Education Act* (2.ed.gov/policy/elsec/leg/blueprint/publicationtoc.html) to describe a vision for the reauthorization of NCLB. One of the major changes suggested was to move from a punishment-based system to one that rewards excellent teaching and student growth. The Blueprint described five priorities (U.S. Department of Education, 2010):

1. *College- and career-ready students.* Regardless of their income, race, ethnic or language background, or disability status, every student should graduate from high school ready for college or a career. To accomplish this goal, the Blueprint recommends *improved assessments* and *turnaround grants* to transform schools. In addition, Arne Duncan, the Secretary of Education, waived the requirement to reach 100% proficiency for states that can demonstrate they have adopted their own testing and accountability programs and are making progress toward the goal of college or career readiness for all their high school graduates (Dillon, 2011).

2. *Great teachers and leaders in every school.* "Research shows that top-performing teachers can make a dramatic difference in the achievement of their students, and suggests that the impact of being assigned to top-performing teachers year after year is enough to significantly narrow achievement gaps" (U.S. Department of Education, 2010, p. 13). To support this goal, the Blueprint proposed a Teacher and Leader Improvement Fund of competitive grants and new pathways for preparing educators. The focus of this book is to create great leaders in every school.

3. *Equity and opportunity for all students.* All students will be included in an accountability system that builds on college- and career-ready standards, rewards progress and success, and requires rigorous interventions in the lowest performing schools.

4. *Raise the bar and reward excellence.* Race to the Top, a series of competitive grants for schools, provided incentives for excellence by encouraging state and local leaders to work together on ambitious reforms, make tough choices, and develop comprehensive plans that change policies and practices to improve outcomes for students.

5. *Promote innovation and continuous improvement.* In addition to the Race to the Top grants, an Investing in Innovation Fund will support local and nonprofit leaders as they develop and scale up programs that have demonstrated success and discover the next generation of innovative solutions.

Time will tell how these proposals unfold, especially in the challenging economic environment we have experienced lately. One possible change in the next reauthorization of the law may be to focus on the bottom 5% of schools, those that have low achievement year after year (McEachin & Polikoff, 2012).

It seems likely that capable and confident teachers will be required to reach these goals. Is that true? But do teachers really make a difference? Good question.

Do Teachers Make a Difference?

You saw in the statistics presented earlier that in America many children are growing up in poverty. For a while, some researchers concluded that wealth and social status, not teaching, were the major factors determining who learned in schools (e.g., Coleman, 1966). In fact, much of the early research on teaching was conducted by educational psychologists who refused to accept these claims that teachers were powerless in the face of poverty and societal problems (Wittrock, 1986).

How can you decide whether teaching makes a difference? Perhaps one of your teachers influenced your decision to become an educator. Even if you had such a teacher, and I hope you did, one of the purposes of educational psychology in general and this text in particular is to go beyond individual experiences and testimonies, powerful as they are, to examine larger groups. The results of many studies speak to the power of teachers in the lives of students. You will see several examples next.

TEACHER–STUDENT RELATIONSHIPS. Bridgett Hamre and Robert Pianta (2001) followed all the children who entered kindergarten one year in a small school district and continued in that district through the eighth grade. The researchers concluded that the quality of the teacher–student relationship in kindergarten (defined in terms of level of conflict with the child, the child's dependency on the teacher, and the teacher's affection for the child) predicted a number of academic and behavioral outcomes *through the eighth grade*, particularly for students with many behavior problems. Even when the gender, ethnicity, cognitive ability, and behavior ratings of the student were accounted for, the relationship with the teacher still predicted aspects of school success. So students with significant behavior problems in the early years are less likely to have problems later in school if their first teachers are sensitive to their needs and provide frequent, consistent feedback. In another study that followed children from third through fifth grade, Pianta and his colleagues found that two factors helped children with lower skills in mathematics begin to close the achievement gap. The factors were higher-level (not just basic skills) instruction and positive relationships with teachers (Crosnoe, Morrison, Burchinal, Pianta, Keating, Friedman, & Clarke-Stewart, 2010).

It appears that the connection between teacher relationships and student outcomes is widespread. Deborah Roorda and her colleagues (2011) reviewed research from 99 studies around the world that examined the connections between teacher–student relationships and student engagement. Positive teacher relationships predicted positive student engagement at every grade, but the relationships were especially strong for students who were at risk academically and for older students. So evidence is mounting for a strong association between the quality of teacher–child relationships and school performance.

THE COST OF POOR TEACHING. In a widely publicized study, researchers examined how students are affected by having several effective or ineffective teachers in a row (Sanders & Rivers, 1996). They looked at fifth graders in two large metropolitan school systems in Tennessee. Students who had highly effective teachers for third, fourth, and fifth grades scored at the 83rd percentile on average on a standardized mathematics achievement test in one district and at the 96th percentile in the other (99th percentile is the highest possible score). In contrast, students who had the least effective teachers 3 years in a row averaged at the 29th percentile in math achievement in one district and 44th percentile in the other—a difference of over 50 percentile points in both cases! Students who had average teachers or a mixture of teachers with low, average, and high effectiveness for the 3 years had math scores between these extremes. Sanders and Rivers concluded that the best teachers encouraged good-to-excellent gains in achievement for all students, but lower-achieving students were the first to benefit from good teaching. The effects of teaching were cumulative and residual; that is, better teaching in a later grade could partially make up for less effective teaching in earlier grades, but could not erase all the deficits. In fact, one study found that at least 7% of the differences in test score gains for students could be traced to their teachers (Hanushek, Rivkin, & Kain, 2005; Rivkin, Hanushek, & Kain, 2001).

PODCAST 1.1
In this podcast, textbook author Anita Woolfolk talks about the importance of teachers in students' lives. Did you know that "teacher involvement and caring is the most significant predictor of a student's engagement in school from 1st grade through 12th grade?" Listen to learn more.

ENHANCEDetext *podcast*

Video 1.1
A bilingual teacher conducts a discussion with immigrant high school students. She asks students to discuss what teachers can do to help English learners and students from different cultures.

ENHANCEDetext *video example*

Another study about test score gains from the Los Angeles public schools may be especially interesting to you. Robert Gordon and his colleagues (2006) measured the test performance of elementary school students in *beginning teachers'* classes. Teachers were ranked into quartiles based on how well their students performed during the teachers' first 2 years. Then the researchers looked at the test performance of students in classes with the top 25% of the teachers and the bottom 25% during their third year of teaching. After controlling for the effects of students' prior test scores, their families' wealth, and other factors, the students working with the top 25% of the teachers gained an average of 5 percentile points more compared to students with similar beginning of the year test scores, while students in the bottom 25% lost an average of 5 percentile points. So students working with a less effective teacher could be an average of 10 percentile points behind the students working with an effective teacher. If these losses accumulate, then students working with poorer teachers would fall farther and farther behind. In fact, the researchers speculated that ". . . having a top-quartile teacher four years in a row would be enough to close the black-white test score gap" [of about 34 percentile points] (R. Gordon, Kane, & Staiger, 2006, p. 8).

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. So an important question is, "What makes a teacher effective? What is good teaching?"

ENHANCEDetext *self-check*

WHAT IS GOOD TEACHING?

Educators, psychologists, philosophers, novelists, journalists, filmmakers, mathematicians, scientists, historians, policy makers, and parents, to name only a few groups, have examined this question; there are hundreds of answers. And good teaching is not confined to classrooms. It occurs in homes and hospitals, museums and sales meetings, therapists' offices, and summer camps. In this book, we are primarily concerned with teaching in classrooms, but much of what you will learn applies to other settings as well.

Inside Three Classrooms

To begin our examination of good teaching, let's step inside the classrooms of three outstanding teachers. The three situations are real. The first two teachers worked with my student teachers in local elementary and middle schools and were studied by one of my colleagues, Carol Weinstein (Weinstein & Romano, 2015). The third teacher became an expert at helping students with severe learning difficulties, with the guidance of a consultant.

A BILINGUAL FIRST GRADE. Most of the 25 students in Viviana's class have recently emigrated from the Dominican Republic; the rest come from Nicaragua, Mexico, Puerto Rico, and Honduras. Even though the children speak little or no English when they begin school, by the time they leave in June, Viviana has helped them master the normal first-grade curriculum for their district. She accomplishes this by teaching in Spanish early in the year to aid understanding and then gradually introducing English as the students are ready. Viviana does not want her students segregated or labeled as disadvantaged. She encourages them to take pride in their Spanish-speaking heritage and uses every available opportunity to support their developing English proficiency.

Both Viviana's expectations for her students and her commitment to them are high. She has an optimism that reveals her dedication: "I always hope that there's somebody out there that I will reach and that I'll make a difference" (Weinstein & Romano, 2015, p. 15). For Viviana, teaching is not just a job; it is a way of life.

A SUBURBAN FIFTH GRADE. Ken teaches fifth grade in a suburban school in central New Jersey. Students in the class represent a range of racial, ethnic, family income, and language backgrounds. Ken emphasizes "process writing." His students complete first drafts, discuss them with others in

the class, revise, edit, and "publish" their work. The students also keep daily journals and often use them to share personal concerns with Ken. They tell him of problems at home, fights, and fears; he always takes the time to respond in writing. Ken also uses technology to connect lessons to real life. Students learn about ocean ecosystems by using a special interactive software program. For social studies, the class plays two simulation games that focus on history. One is about coming of age in Native American cultures, and the other focuses on the colonization of America.

Throughout the year, Ken is very interested in the social and emotional development of his students; he wants them to learn about responsibility and fairness as well as science and social studies. This concern is evident in the way he develops his class rules at the beginning of the year. Rather than specifying dos and don'ts, Ken and his students devise a "Bill of Rights" for the class, describing the rights of the students. These rights cover most of the situations that might need a "rule."

AN INCLUSIVE CLASS. Eliot was bright and articulate. He easily memorized stories as a child, but he could not read by himself. His problems stemmed from severe learning difficulties with auditory and visual integration and long-term visual memory. When he tried to write, everything got jumbled. Dr. Nancy White worked with Eliot's teacher, Mia Russell, to tailor intensive tutoring that specifically focused on Eliot's individual learning patterns and his errors. With his teachers' help, over the next years, Eliot became an expert on his own learning and was transformed into an independent learner; he knew which strategies he had to use and when to use them. According to Eliot, "Learning that stuff is not fun, but it works!" (Hallahan & Kauffman, 2006, pp. 184–185).

What do you see in these three classrooms? The teachers are confident and committed to their students. They must deal with a wide range of students: different languages, different home situations, and different abilities and learning challenges. They must adapt instruction and assessment to students' needs. They must make the most abstract concepts, such as ecosystems, real and understandable for their particular students. The whole time that these experts are navigating through the academic material, they also are taking care of the emotional needs of their students, propping up sagging self-esteem, and encouraging responsibility. If we followed these teachers from the first day of class, we would see that they carefully plan and teach the basic procedures for living and learning in their classes. They can efficiently collect and correct homework, regroup students, give directions, distribute materials, and deal with disruptions—and do all of this while also making a mental note to find out why one of their students is so tired. Finally, they are **reflective**—they constantly think back over situations to analyze what they did and why, and to consider how they might improve learning for their students.

SO WHAT IS GOOD TEACHING? Is good teaching science or art, the application of research-based theories or the creative invention of specific practices? Is a good teacher an expert explainer—"a sage on the stage" or a great coach—"a guide by the side"? These debates have raged for years. In your other education classes, you probably will encounter criticisms of the scientific, teacher-centered sages. You will be encouraged to be inventive, student-centered guides. *But beware of either/or choices.* Teachers must be both knowledgeable and inventive. They must be able to use a range of strategies, and they must also be capable of inventing new strategies. They must have some basic research-based routines for managing classes, but they must also be willing and able to break from the routine when the situation calls for change. They must know the research on student development, and they also need to know their own particular students who are unique combinations of culture, gender, and geography. Personally, I hope you all become teachers who are both sages and guides, wherever you stand.

Another answer to "What is good teaching?" involves considering what different models and frameworks for teaching have to offer. We look at this next.

MODELS OF GOOD TEACHING. In the last few years, educators, policy makers, government agencies, and philanthropists have spent millions of dollars identifying what works in teaching and specifically how to identify good teaching. These efforts have led to a number of models for teaching and teacher evaluation systems. We will briefly examine three to help answer the question, "What is good teaching?" Another reason to consider these models is that when you become a teacher, you
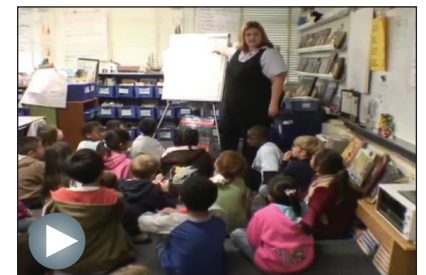
Video 1.2
Teachers must be both knowledgeable and inventive. They must be able to use a range of strategies, and they must also be capable of inventing new strategies. In this video, the teacher knows her students and uses strategies that help each student learn. Observe how she supports students who are English language learners, and observe her method of grouping students to meet diverse needs.

ENHANCEDetext *video example*