EFFECTIVE TEACHING METHODS

TENTH EDITION

RESEARCH-BASED PRACTICE

GARY D. BORICH • ANGELICA BLANCHETTE

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About this Book

This tenth edition stays true to the mission to illustrate how to apply effective, research-based teaching practices, presented in a conversational style, that are practical and realistic in today's diverse classrooms.

State curriculum standards, differentiated instruction, new educational technologies, diverse learners in the general education classroom, cognitive and academic language proficiency, and new legislative initiatives, such as the Every Student Succeeds Act and Response to Intervention, are but a few of the developments that continue to change the face of classroom teaching. This book has been written to help you prepare to meet these challenges and to discover the opportunities for professional growth and advancement they provide.

This tenth edition of *Effective Teaching Methods: Research-based Practice* continues to strengthen the four goals of previous editions, which are as follows:

- To present teaching practices derived from the newest classroom research selected for their effectiveness with learners. The results have made it possible to replace many age-old anecdotal suggestions for good teaching with modern-day research-based teaching practices that are empirically related to positive outcomes in learners. Describing these teaching practices and how to use them in your classroom to become an effective teacher is a major focus of this book.
- To describe these effective teaching practices in a friendly, conversational manner. The language of classrooms is informal, and there is no reason a book about teachers in classrooms should not use the same language. Therefore, this book talks straight, avoiding complicated prescriptions, rambling discussions, or pseudo-scholarly language. The intent is to get the point across quickly and in a user-friendly style so that you can immediately apply what is presented in the classroom.
- To be practical. Positive prescriptions for your classroom teaching show you how to engage students in the learning process, manage your classroom, and increase student achievement in today's diverse classrooms. This book tells you what to do to obtain these results in a succinct and orderly fashion with extensive examples from classroom videos, written classroom dialogues, and case studies.
- To be realistic. Some of the literature on effective teaching is theoretical and speculative. This book describes what the research says teachers do in real classrooms to be effective and identifies the teaching practices they have found to be effective. Nothing in this book is pie-in-the-sky theorizing about effective teaching, because most of what is presented results directly from years of research and observation of effective teaching practices in actual classrooms.

New to This Edition

Users of earlier editions of *Effective Teaching Methods* will notice that each chapter has been revised. The rapid pace of change and new research occurring in nearly every aspect of teaching has resulted in a tenth edition that considerably updates and extends earlier editions and provides an extensive complement of features to get beginning teachers confident and up to speed on their very first day of classroom observation and practice teaching.

These updates include new content and applications that:

- Situate culturally responsive teaching as central and critical for all teaching practices, such as grounding classroom management in an awareness of the multiple and interconnected systems of students' lives in Chapter 4 and promoting an awareness of how metacommunication influences the effectiveness of teaching practices like direct instruction in Chapter 9.

- Expand on language proficiency differences with approaches and resources to support those differences. For example Chapter 2 provides an explanation of language proficiency levels, which connects to the discussion of goals, standards, and objectives in Chapter 5, and carries through with language support recommendations in the later chapters, such as supporting language needs in student discussions in Chapter 10, in cooperative learning activities in Chapter 12, and in testing contexts in Chapter 13.
- Promote a focus on unit and lesson planning that is grounded in high-level learning goals and designed with diverse learning needs in mind by using Wiggins and McTighe's Understanding by Design approach. This learning is supported by new resources such as a lesson template grounded in Backward Design.
- Enhance the practical application of learning with a new opening vignette and vignette application activity in each chapter.
- Provide additional tools and resources with new appendix items such as the Herr Student Questionaire, and the Hess Cognitive Rigor Matrix.

Key Content Updates by Chapter

- In **Chapter 1** readers will find new information related to the Classroom Assessment Scoring System (CLASS) as it relates to teacher-student relationships and interactions that mitigate teaching and learning. Diversity of learners and learning needs is centralized as a primary lens for understanding and achieving effective teaching methods, and attention to reflective practice is enhanced with awareness of the influence of apprenticeship of observation and cycles of teacher change.
- **Chapter 2** is the first of several chapters that expands the information provided about the language proficiency of learners. The content lays out foundational understandings that are enriched in later chapters and application activities. An introduction to the Response to Intervention (RTI) has also been included at this earlier point in the text to allow readers to situate understandings as they may apply to the RTI context.
- **Chapter 3** is one of many chapters where being culturally responsive is presented as essential to achieving effective teaching methods. Responsive classroom and collaboration with colleagues are expanded on and included as practical research-based recommendations that can support culturally responsive classroom management.
- In **Chapter 4** readers will find the emphasis on connections to promote student engagement enhanced and grounded in Bronfenbrenner's ecological systems theory. Proactive and supportive approaches are encouraged with additions to the text about the influence of Adverse Childhood Experiences on student behavior, the use of methods such as behavior contracts, and the potential of collaboration through home-school connections such as the Parent Teacher Association.
- The updates to Bloom's taxonomy are applied in **Chapter 5** and enhanced with new content about Depth of Knowledge (DOK). The Hess Cognitive Rigor Matrix is provided to help readers understand the intersection of Bloom's and DOK, which then also serves as a valuable resource in application activities. Consideration of language proficiency when working with and developing goals, standards, and objectives is also enhanced in this chapter.
- Readers will find continued encouragement for professional collaboration in **Chapter 6,** and lesson study is presented as a valuable structure for professional collaboration. Information on unit and lesson planning is enhanced with Wiggins and McTighe's Understanding by Design approach, and supported by new resources such as lesson template grounded in Backward Design.
- In **Chapter 7** instructional technologies have been updated throughout, removing reference to outdated technologies such as MySpace and including current technologies such as Minecraft

and Kahoot! Information on assistive technologies has been added and readers will find increased emphasis on the purposeful and selective use of instructional technologies.

- The primary update to **Chapter 8** resides in a new section on student use of questioning for collaboration, which provides research-based questioning techniques.
- **Chapter 9** includes new teaching strategies for responding to incorrect responses. In the lesson examples the term *plan* was changed to *outline* to distinguish general lesson conceptualization from the specific lesson planning examined in Chapter 5.
- In **Chapter 10** information on specific supports for student self-evaluation have been added. The section on use of group discussion has been enhanced with new instructional techniques and information on scaffolding discussion for students with language needs.
- **Chapter 11** is largely unchanged, staying true to the focus on fostering learner creativity and resilience through self-directed and constructivist learning.
- The information on stages of group development (previously in Chapter 3) was moved to **Chapter 12**, which allows readers to appreciate how attention to group development can support cooperative learning. Language supports for student-student interactions and a few new cooperative learning activities have been added to this chapter.
- In **Chapter 13** the validity and reliability section has been enhanced with information on test bias and inter-rater reliability. The content on educational legislation has been updated to reflect the Every Student Succeeds Act (ESSA).

Pedagogical Features

- **Learning Outcomes** and **InTASC standards** focus you on the key aspects of each chapter. In this edition, the Learning Outcomes have been condensed, frame the content of the chapters, and tie to summary statements at the end of the chapter.
- **Chapter Vignette and Vignette Application Activities** are a new feature to the tenth edition. Each chapter opens with a vignette to anchor the reader in real-life contexts to which the chapter content applies. The application activities are included at the close of the chapter to provide an immediate opportunity to apply learning from the chapter back to the real-life context of the opening vignette.
- **Update pedagogical language** such as people-first language, such as learners with risk factors instead of at-risk learners. As well as replacing terms such as minority with marginalized, rules with expectations, guidelines, and routines, and a greater use of terms such as diverse learning needs and learning differences.
- **In Practice** features offer practical teaching tips, strategies, and techniques that can help new teachers extend their textbook knowledge to their very first lesson plans, showing them tangible approaches to putting theory into practice. They include how to apply constructivist principles, use differentiated instruction, teach learners with diverse needs, integrate technology and web-based instruction into lesson plans, apply the concept of multiple intelligences, write interdisciplinary unit plans, achieve mastery learning, initiate project- and problem-based learning, and use portfolios and performance assessments to provide learners an opportunity to participate in their own assessment. Many In Practice features appear in this edition, including Focus on Applications for Online Learning, Focus on Digital Gaming in the Classroom, and Focus on Cooperative Learning.
- A **Case History** is included to immerse readers in authentic scenarios related to the content of each chapter. These provide an additional opportunity for readers to reflect and connect their learning to real life teaching and learning situations.

- **End-of-chapter Practice OR End-of-chapter Application**
  - **End-of-chapter Summing Up** sections tie back to the learning outcomes and restate key concepts in an easy-to-follow format for easy reference during field experiences, observation assignments, and practice teaching. **Discussion and Practice Questions** review the most important content of each chapter, with keyed answers presented in Appendix B.
  - **Professional Practice** sections at the ends of chapters provide hands-on opportunities to engage you in decision making and problem solving as they are carried out in a real classroom. Together, all three sets of activities provide a menu of opportunities from which you can practice and advance the skills learned in each chapter.
  - **Field Experience and Practice Activities** at the end of each chapter encourage you to make decisions and solve practical classroom problems related to the content within each chapter with regard to lesson planning, classroom management, cultural diversity, and project-based learning.
  - **Digital Portfolio Activities** guide you in creating a professional portfolio of accomplishments with entries related to the content of each chapter. This portfolio will be a vehicle with which you can put your best foot forward to future instructors in your teacher preparation program, cooperating or supervisory teachers during student teaching, professional colleagues, and, most importantly, future employers. The portfolio will chronicle your best accomplishments in this course and beyond.
  - **A glossary of key terms and definitions** recaps all of the major definitions, concepts, and teaching practices that you will need to review for the Praxis exams and your state's certification requirements.

Pearson eText, Learning Management System (LMS)-Compatible Assessment Bank, and Other Instructor Resources.

Pearson eText (9780135791707)

The Pearson eText is a simple-to-use, mobile-optimized, personalized reading experience. It allows you to easily highlight, take notes, and review key vocabulary all in one place— even when offline. Seamlessly integrated videos and other rich media will engage you and give you access to the help you need, when you need it. To gain access or to sign in to your Pearson eText, visit: https://www.pearson.com/pearson-etext. Features include:

- **Video Examples**. Each chapter includes *Video Examples* that illustrate principles or concepts aligned pedagogically with the chapter.
- **IRIS Center Modules** IRIS Center modules, headquartered at Vanderbilt University, are interactive online learning modules that provide knowledge and describe strategies shown to be effective in teaching students. Various modules have been selected by the authors and are linked in the Pearson eText.
- **General Methods Simulations** These interactive cases focus on the classroom issues teachers most frequently encounter on a daily basis. Each simulation presents a challenge scenario at the beginning and then offers a series of choices to solve each challenge. Along the way students receive mentor feedback on their choices and have the opportunity to make better choices if necessary.

LMS-Compatible Assessment Bank

With this new edition, all assessment types— quizzes, application exercises, and chapter tests—are included in LSM-compatible banks for the following learning management systems:

Blackboard (9780137346615), Canvas (9780137346714), D2L (9780137346738), Moodle (9780137346707). These packaged files allow maximum flexibility to instructors when it comes to importing, assigning, and grading. Assessment types include:

- **Learning Outcome Quizzes** Each chapter learning outcome is the focus of a *Learning Outcome Quiz* that is available for instructors to assign through their Learning Management System. Learning Outcomes identify chapter content that is most important for learners and serve as the organizational framework for each chapter. The higher-order, multiple-choice questions in each quiz will measure your understanding of chapter content, guide the expectations for your learning, and inform the accountability and the applications of your new knowledge. When used in the LMS environment, these multiple-choice questions are automatically graded and include feedback for the correct answer and for each distractor to help guide students' learning.
- **Application Exercises** Each chapter provides opportunities to apply what you have learned through *Application Exercises*. These exercises are usually short-answer format and can be based on Pearson eText Video Examples and written cases scenarios modeled by pedagogical text features. For example, in Chapter 3 you will identify the leadership style and evaluate the effectiveness of that style with a video example of a teacher working with a small group. When used in the LMS environment, a model response written by experts is provided after you submit the exercise. This feedback helps guide your learning and can assist your instructor in grading.
- **Chapter Tests** Suggested test items are provided for each chapter and include questions in various formats. When used in the LMS environment, these objective, selected-response, items are automatically graded.

Instructor's Manual (9780135791745)

The Instructor's Manual is provided as a Word document and includes resources to assist professors in planning their course, providing an overview of chapter content and related instructional activities for the college classroom and for practice in the field as well as in the field.

PowerPoint™ Slides (9780135791677)

The PowerPoint™ slides include key concept summarizations, diagrams, and other graphic aids to enhance learning. They are designed to help students understand, organize, and reinforce core concepts and theories.

Note: All instructor resources— LMS compatible assessment bank, instructor's manual, and PowerPoint Slides are available for download at www.pearsonhighered.com. Use one of he following methods

- From the main page, use the search function to look up the lead author. Select the desired search result, then access the "Resources" tab to view and download all available resources.
- From the main page, use the search function to look up the ISBN (provided above of the specific instructor resource you would like to download. When the product page loads, access the "Downloadable Resources" tab).

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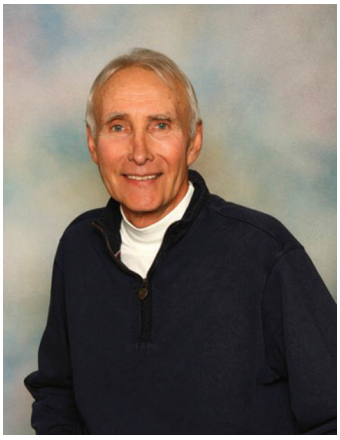

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Dr. Borich lives in Austin, Texas, with his wife, Kathy. His interests include training and riding Arabian horses and he is the author of *An Illustrated Introduction to Classical Horsemanship*.

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Dr. Blanchette lives in Charlottesville, Virginia, with her husband and two children. Her interests include swimming and gardening, and she is determined to grow a fantastic heirloom tomato one day.

1

The Effective Teacher

Learning Outcomes

By the time you complete this chapter, you will know and be able to:

1.1 Explain the role that research plays in demonstrating how teaching strategies and methods contribute to student performance.

1.2 Examine key instructional behaviors that contribute to becoming an effective teacher.

1.3 Compare and contrast the approaches you can use as an effective teacher and discuss the ways in which you can meet each learner's diverse needs.

1.4 Discuss the role that standards play in teaching and learning.

1.5 Evaluate the factors that are critical to your transition into the real world of teaching.

InTASC

By the end of the chapter, you will be able to meet the following InTASC standards for effective teaching:

STANDARD 1 Learner Development. The teacher understands how learners grow and develop, recognizing that patterns of learning and development vary individually within and across the cognitive, linguistic, social, emotional, and physical areas, and designs and implements developmentally appropriate and challenging learning experiences.

STANDARD 4 Content Knowledge. The teacher understands the central concepts, tools of inquiry, and structures of the discipline(s) he or she teaches and creates learning experiences that make these aspects of the discipline accessible and meaningful for learners to assure mastery of the content.

STANDARD 6 Assessment. The teacher understands and uses multiple methods of assessment to engage learners in their own growth, to monitor learner progress, and to guide the teacher's and learner's decision-making.

Chapter 1 Vignette

At Apple Grove Elementary School the second graders have demonstrated weaknesses with basic comprehension strategies. The comprehension performance weakness is out of synch with the relatively strong word reading levels they have been achieving since implementing a strong phonics curriculum in kindergarten and first grade.

The literacy specialist suspects there is a lack of balanced attention on the phonics skill work and comprehension thinking with authentic literature. She has proposed a kindergarten through second grade focus on think-alouds (when the teacher models internal-thinking dialogues out loud for students as they listen to a read aloud, and provide opportunities for them to practice their own think-alouds). The principal, Mr. Ruiz, set up four half-days between August and March for the kindergarten-second grade vertical team, including the literacy specialist, to meet.

The vertical team completed a common read on think-alouds in advance of the first meeting. Together they completed a reflection activity and planning tasks to prepare to implement a few think-aloud lessons between then and the second vertical-team meeting. By the second vertical-team meeting a theme of feeling ineffective at conducting think-alouds emerged. The team decided to ask Mr. Ruiz for help in finding models they could see in action.

Mr. Ruiz tapped into the principal network in their district and received a handful of recommendations of teachers who were exemplary at facilitating think-alouds. The literacy specialist reached out to the recommended teachers and arranged times to come video record them in action. The vertical-team then agreed to view the videos, keep trying think-alouds in their own classrooms, and come to the third meeting ready to reflect on the videos together.

The teachers and leadership at Apple Grove Elementary provide an example of the pursuit of effective teaching. They were not poor teachers; their practice was already meeting many

of their students' needs. Rather, as good teachers, they used performance data to stay vigilant and responsive with their learners. Consider how the information in the sections you are about to read in Chapter 1 relate back to this vignette, particularly:

- Develop an understanding of the key and helping behaviors that contribute to effective instruction.
- Consider how perspectives may be driven by the three stages of Fuller's concerns theory.
- Explore the variety of professional positions and collaborations that can foster effective instruction.

We will revisit the Apple Grove vertical team and explore their pursuit of effective teaching in the Vignette Application Activity at the end of the chapter.

How easily or quickly could you answer the question, "What is an effective teacher?" This question has been asked by every teacher, young and old. It is a deceptively simple question that has many different answers. Teaching is a complex and difficult task that demands extraordinary abilities. After decades of experience and research, one of the most important questions in education today still is, "What is an effective teacher?"

This chapter offers no single definition of an effective teacher. Instead, its goal is to introduce you to practices used by effective teachers that are related to positive outcomes in learners. These effective teaching practices do not tell the whole story of what an effective teacher is, but they do form an important foundation to help you become an effective teacher and profit from reading the chapters ahead. Subsequent chapters blend these practices with classroom management, lesson planning, technology integration, problem-based and constructivist learning strategies, learner assessment, and the attitudes and dispositions you will need to build a warm and nurturing relationship with your students. These topics will give you a rich and comprehensive picture of an effective teacher and, most importantly, help you become one.

What is an Effective Teacher?

Learning Outcome 1.1 Explain the role that research plays in demonstrating how teaching strategies and methods contribute to student performance.

If you had grown up a century ago, you would have been able to answer the question "What is an effective teacher?" very simply: A good teacher is a good person—a role model who meets the community ideal for a good citizen, good parent, and good employee. At that time, teachers were judged primarily on their goodness as people and only secondarily on their behavior in the classroom. They were expected to be honest, hardworking, generous, friendly, and considerate and to demonstrate these qualities in their classrooms by being organized, disciplined, insightful, and committed. Practically speaking, this meant that to be effective all a teacher needed was King Solomon's wisdom, Sigmund Freud's insight, Albert Einstein's knowledge, and Florence Nightingale's dedication!

It soon became evident that this definition of an ideal teacher lacked clear, objective standards of performance that could be consistently applied and that could be used to train future teachers.

A New Direction

Over the past several decades, a revolution has occurred in defining good teaching. We have seen that defining good teachers by community ideals proved unrealistic and that it was poorly related to what teachers actually do in the classroom. This directed researchers to study the impact of specific teacher activities on the specific cognitive and affective behaviors of their students. The term *good teaching* changed to *effective teaching*, and the research focus shifted from studying teachers exclusively to including teachers' effects on students. These new ways of studying classroom behavior have made the teacher-student relationship in the classroom the focus of modern definitions of effective teaching.

Linking Teacher Behavior with Student Performance. During the past few decades, researchers developed new methods for studying the classroom interaction patterns of teachers and students (Good & Brophy, 2007; Pianta, La Paro, & Hamre, 2008). Their goal was to discover which patterns of teacher behavior promote desirable student performance. Research with tools such as the Classroom Assessment Scoring System (CLASS) indicates positive correlations between effective teacher-student interactions and student success in the early education years (La Paro, Pianta, & Stuhlman, 2004), as well as the secondary years (Allen, Gregory, Mikami, Lun, Hamre, & Pianta, 2013). But before unpacking the findings of this research and their implications for your teaching, let's see how this research was performed.

Patterns of Classroom Interaction. To collect data on the classroom interaction patterns of teachers and students, researchers often used instruments like those shown in Figures 1.1, 1.2, and 1.3. These particular instruments, devised by Good and Brophy (2007) for their research on effective teaching, record patterns of student-teacher interaction. Using the coding guide in Figure 1.1 and the response form in Figure 1.2, an observer codes both student responses to questions and the teacher's reaction and feedback. Numbers for the interchanges are assigned as they occur, allowing the pattern of question-answer-feedback to be recorded over an entire class period across many classrooms.

On the Coding Form for Measuring Individual Praise (Figure 1.3), the observer codes the positive behavior being praised by the teacher (perseverance, progress, success, good thinking, etc.). Individual students are identified by assigning each a unique number such as 14, 23, 6, and so on. This form records not only the praise behavior of the teacher in relation to individual student behavior but also the overall pattern or sequence of action. For example, student 23 is praised twice in a row, the first time for "Success" and the second time for "Good thinking."

With instruments such as these, a rich and varied picture of classroom activity can be captured over the course of a research study and related to various measures of school achievement. Obviously, a single observation of a single class would provide too little data to reveal a consistent pattern of interaction. However, multiple observations extending across different days, teachers, or schools could reveal consistent patterns of teacher-student interactions. These patterns of classroom behavior then can be related to student outcomes—such as classroom quizzes, student projects, oral performances, portfolio assessments, and standardized tests—to determine their effects on student performance.

It was in this manner that patterns of effective teaching began to emerge in studies conducted by different researchers. As in all research, some studies provided contradictory results or found no relationships among certain types of classroom interactions and student outcomes. But many studies found patterns of interaction between teacher and learner that consistently produced desirable student outcomes in the form of greater motivation to learn, higher achievement, increased problem solving, and improved learning skills.

Now that you know how the research was conducted, let's look at a preview of the teaching strategies and methods that researchers generally agree contribute to effective teaching and that will be addressed in the following chapters.

Figure 1.1 Coding Categories for Question–Answer–Feedback Sequences

Student Gender	Definition	Explanation
Symbol Label		
M	Male	The student answering the question is male.
F	Female	The student answering the question is female.
Student Response		
+	Right	The teacher accepts the student's response as correct or satisfactory.
±	Part right	The teacher considers the student's response to be only partially correct or to be correct but incomplete.
–	Wrong	The teacher considers the student's response to be incorrect.
0	No answer	The student makes no response or says he doesn't know (code student's answer here if teacher gives feedback reaction before he is able to respond).
Teacher Feedback Reaction		
++	Praise	Teacher praises student either in words ("fine," "good," "wonderful," "good thinking") or by expressing verbal affirmation in a notably warm, joyous, or excited manner.
+	Affirm	Teacher simply affirms that the student's response is correct (nods, repeats answer, says "Yes," "OK," etc.).
0	No reaction	Teacher makes no response whatever to student's response—he or she simply goes on to something else.
–	Negate	Teacher simply indicates that the student's response is incorrect (shakes head, says "No," "That's not right," "Hm-mm," etc.).
– –	Criticize	Teacher criticizes student, either in words ("You should know better than that," "That doesn't make any sense—you better pay close attention," etc.) or by expressing verbal negation in a frustrated, angry, or disgusted manner.
Gives Ans.	Teacher gives answer	Teacher provides the correct answer for the student.
Ask Other	Teacher asks another student	Teacher redirects the question, asking a different student to try to answer it.
Other Calls	Another student calls out answer	Another student calls out the correct answer, and the teacher acknowledges that it is correct.
Repeat	Repeats question	Teacher repeats the original question, either in its entirety or with a prompt ("Well?" "Do you know?" "What's the answer?").
Clue	Rephrase or clue	Teacher makes original question easier for student to answer by rephrasing it or by giving a clue.
New Ques.	New question	Teacher asks a new question (i.e., a question that calls for a different answer than the original question called for).

Source: Good, Thomas L., *Looking in Classrooms,* 5th ed., © 1990. Reprinted and electronically reproduced by permission of Pearson Education, Inc., Upper Saddle River, New Jersey.

Figure 1.2 Coding Response Form

	Sex		Student Response				Teacher Feedback Reaction										
Stu. No.	M	F	+	±	–	0	++	+	0	–	– –	Gives Ans.	Ask Other	Other Calls	Repeat	Clue	New Ques.
1	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
2	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
3	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
4	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
5	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
6	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
7	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
8	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
9	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
10	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
11	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
12	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
13	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
14	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
15	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

This example line indicates the tenth exchange recorded was with a male student who failed to answer a question (coded 0 under Student Response), was criticized by the teacher for not answering (coded – –), and is then given the answer by the teacher (coded with ☑) under Gives Ans.)

Example:

10	☑	☐	☐	☐	☐	0	☐	☐	☐	☐	– –	☑	☐	☐	☐	☐	☐

Source: Good, Thomas L., *Looking in Classrooms*, 5th ed., © 1990. Reprinted and electronically reproduced by permission of Pearson Education, Inc., Upper Saddle River, New Jersey.

Key Behaviors Contributing to Effective Teaching

Learning Outcome 1.2 Examine key instructional behaviors that contribute to becoming an effective teacher.

From this research, approximately ten teacher behaviors have been identified that show promising relationships to desirable student performance, primarily as measured by classroom assessments and standardized tests. Five of these behaviors have been consistently supported by research studies (Borich, 2015; Brophy, 2002; Brophy & Good, 1986; Emmer & Evertson, 2012; Herrell & Jordan, 2011; Krechevsky, Mardell, Rivard, & Wilson 2013; Marzano, 2012; Marzano, Pickering, & Pollock, 2004; McNary, Glasgow, & Hicks, 2005; McTighe & Wiggins, 2013; Saunders, 2005; Willis, 2006). Another five have had some support and appear logically

Figure 1.3 Coding Form for Measuring Individual Praise

USE: Whenever the teacher praises an individual student
PURPOSE: To see what behaviors the teacher reinforces through praises, and to see how the teacher's praise is distributed among the students

Behavior Categories	Student Number	Codes
1. Perseverance or effort; worked long or hard	14	1. 3
2. Progress (relative to the past) toward achievement	23	2. 3,4
3. Success (right answer, high score) achievement	6	3. 3
4. Good thinking, good suggestions, good guess, or nice try	18	4. 3
5. Imagination, creativity, originality	8	5. 1
6. Neatness, careful work	8	6. 1
7. Good or compliant behavior, follows rules, pays attention	8	7. 1
8. Thoughtfulness, courtesy, offering to share, prosocial behavior		8.
9. Other (specify)		9.
NOTES:		10.
All answers occurred during social studies discussion.		11.
		12.
Was particularly concerned about #8, a low-performing learner.		13–25.

Source: Good, Thomas L., *Looking in Classrooms*, 5th ed., © 1990. Reprinted and electronically reproduced by permission of Pearson Education, Inc., Upper Saddle River, New Jersey.

related to effective teaching. The first five are called **key behaviors**, because they are considered essential for effective teaching. The second five are called **helping behaviors**, because they can be used in combinations to implement the key behaviors. Following are the five key behaviors essential for effective teaching:

1. Lesson clarity
2. Instructional variety
3. Teacher task orientation
4. Student engagement in the learning process
5. Student success rate

Let's take a closer look at each of these.

Lesson Clarity

Lesson clarity refers to how clear a teacher's presentation is to the class, as indicated in the following points:

More Effective Teachers

- Make ideas clear to learners who may be at different levels of understanding.
- Explain concepts in ways that help students follow along in a logical, step-by-step order.
- Have an oral delivery that is direct, audible to all students, and free of distracting mannerisms.

Less Effective Teachers

- Use vague, ambiguous, or indefinite language, such as "might probably be," "tends to suggest," and "could possibly happen."
- Use overly complicated sentences, such as "There are many important reasons for the start of World War II, but some are more important than others, so let's start with those that are thought to be important, but really aren't."
- Give directions that often result in student requests for clarification.

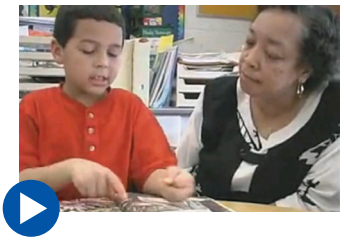
One result from research on lesson clarity is that teachers vary considerably in this behavior. Not all teachers are able to communicate clearly and directly to their students without wandering, speaking above students' levels of comprehension, or using speech patterns that impair their presentation's clarity (Brophy, 2002; Fasset & Warren, 2010; Muijs & Reynolds, 2005; Popham, 2009).

If you teach with a high degree of clarity, you will spend less time going over material. Your questions will be answered correctly the first time, allowing more time for instruction. Clarity is a complex behavior because it is related to many other behaviors, such as your organization of the content, lesson familiarity, and delivery strategies (whether you use a discussion, recitation, question-and-answer, or small-group format). Research shows that both the cognitive and oral clarity of presentations vary substantially among teachers. This in turn produces differences in student performance on cognitive tests of achievement (Muijs & Reynolds, 2005). Table 1.1 summarizes some of the indicators of lesson clarity and teaching strategies you will learn about in this text, especially in Chapters 8 (on questioning strategies), 9 (on direct instruction), and 10 (on indirect instruction).

Table 1.1 Indicators for Clarity

Being Clear (An effective teacher . . .)	Examples of Teaching Strategies
1. Informs learners of the lesson objective (e.g., describes what behaviors will be tested or required on future assignments as a result of the lesson)	Prepare a behavioral objective for the lesson at the desired level of complexity (e.g., knowledge, comprehension, etc.). Indicate to learners at the start of the lesson in what ways the behavior will be used in the future.
2. Provides learners with an advance organizer (e.g., one that places the lesson in the perspective of past and/or future lessons)	Consult or prepare a unit plan to determine what task-relevant prior learning is required for this lesson and what task-relevant prior learning this lesson represents for future lessons. Begin the lesson by informing the learner that the content to be taught is part of this larger context.
3. Checks for task-relevant prior learning at the beginning of the lesson (e.g., determines the level of understanding of prerequisite facts or concepts and reteaches if necessary)	Ask questions of students at the beginning of a lesson or check assignments regularly to determine if task-relevant prior knowledge has been acquired.
4. Gives directives slowly and distinctly (e.g., repeats directives when needed or divides them into smaller pieces)	Organize procedures for lengthy assignments in step-by-step order, and give them as a handout as well as orally.
5. Knows ability levels and teaches at or slightly above learners' current level of understanding (e.g., knows learners' attention spans)	Determine learners' ability level from standardized tests, previous assignments, and interests, and retarget instruction accordingly.
6. Uses examples, illustrations, and demonstrations to explain and clarify (e.g., uses visuals to help interpret and reinforce main points)	Restate main points in at least one modality other than the one in which students were initially taught (e.g., visual vs. auditory).
7. Provides a review or summary at the end of each lesson	Use key phrases, repetition, or easy to memorize symbols to help students efficiently store and later recall content.

Instructional Variety



Pearson eText
Video Example 1.1
Observe the teacher in this video as she guides discussion about the illustrations in the literature selection for a reading group. Notice how the teacher asks various levels of questions of students in the small group.

The term **instructional variety** refers to your variability or flexibility of delivery during the presentation of a lesson (Brophy, 2002; Marzano, Pickering, & Heflebower, 2010; Marzano, 2009). One of the most effective ways of creating variety during instruction is to ask questions. As you will learn in Chapter 8, many different types of questions can be integrated into the pacing and sequencing of a lesson to create meaningful variation (Chuska, 2003; Falk & Blumenreich, 2005; Walsh & Sattes, 2011). Therefore, the effective teacher needs to know the art of asking questions and how to discriminate among different question formats—fact questions, process questions, convergent questions, and divergent questions. These question types are introduced in Chapter 8 and expanded on in Chapter 10.

Another aspect of instructional variety in teaching is perhaps the most obvious: the use of supplemental learning materials, computer software, displays, the Internet, and space in your classroom. The physical texture and visual variety of your classroom can also contribute to instructional variety. This has been shown to influence students' engagement, motivation to learn, and achievement on end-of-unit tests and performance assessments (Walqui, 2000). For example, some studies found the amount of disruptive behavior to be less in classrooms that had more varied activities and materials (Emmer & Evertson, 2016; Evertson & Emmer, 2016). Others have shown variety to be related to student attention (Borich, 2004, 2008).

Some ways to incorporate variety into your teaching are presented in Chapter 7 (on technology integration), Chapter 9 (on direct instruction), Chapter 10 (on indirect instruction), Chapter 11 (self-directed and constructivist learning strategies), and Chapter 12 (on cooperative learning and the collaborative process). Table 1.2 summarizes some of the indicators of instructional variety and teaching strategies covered in these chapters.

Table 1.2 Indicators for Variety

Using Variety (An effective teacher . . .)	Examples of Teaching Strategies
1. Uses attention-gaining devices (e.g., begins with a challenging question, visual, or example)	Begin the lesson with an activity in a modality that is different from the last lesson or activity (e.g., change from listening to seeing).
2. Shows enthusiasm and animation through variation in eye contact, voice, and gestures (e.g., changes pitch and volume, moves about during the transition to a new activity)	Change position at regular intervals (e.g., every ten minutes). Change speed or volume to indicate that a change in content or activity has occurred.
3. Varies modes of presentation (e.g., presents, asks questions, then provides for independent practice (daily))	Establish an order of daily activities that rotates cycles of seeing, listening, and doing.
4. Uses a mix of rewards and reinforcers (e.g., extra credit, verbal praise, independent study, etc. (weekly, monthly))	Establish lists of rewards and expressions of verbal praise, and choose among them randomly. Provide reasons for praise along with the expression of it.
5. Incorporates student ideas or participation in some aspects of instruction (e.g., uses indirect instruction or divergent questioning (weekly, monthly))	Occasionally plan instruction in which student opinions are used to begin the lesson (e.g., "What would you do if . . .").
6. Varies types of questions (e.g., divergent, convergent, (weekly)) and probes (e.g., to clarify, to solicit, to redirect (daily))	Match questions to the behavior and complexity of the lesson objective. Vary the complexity of the lesson objectives in accord with the unit plan.

Table 1.3 Learning Time and Student Achievement: Example from Second-Grade Reading

Reading Score at First Testing (October)		*Student Engaged Time in Reading with High Success Rate*		*Estimated Reading Score, Second Testing (December)*	
Raw Score (out of 100)	**Percentile**	**Total Time over 5 Weeks (Minutes)**	**Average Daily Time (Minutes)**	**Raw Score (out of 100)**	**Percentile**
36	50	100	4	37	39
36	50	573	23	43	50
36	50	1,300	52	52	66

Note: An average of 25 school days occurred between the first and second testing.

Source: Based on *Teaching and Learning in the Elementary School: A Summary of the Beginning Teacher Evaluation Study*, Beginning Teacher Evaluation Study Report VII-I, by Charles W. Fisher et al., 1978. San Francisco: Far West Laboratory for Research and Development.

Teacher Task Orientation

Teacher task orientation is a key behavior that refers to the amount of classroom time the teacher devotes to teaching an academic subject. The more time allocated to teaching a specific topic, the greater the opportunity students have to learn.

For example, Table 1.3 shows the results achieved in a second-grade reading classroom when the teacher's task orientation—or time teaching an academic subject—was increased over a 5-week period. Increasing the time devoted to this instructional objective from 4 minutes to 52 minutes a day, over an average of only 25 school days, yielded an increase of 27 percentile points (from 39 to 66) on a standardized achievement test. The researchers who recorded these data indicated that although such large increases in instructional time might appear unusual, they actually were achieved by teachers in these elementary school classrooms and that improvements in standardized achievement can be achieved with even small increments of a teacher's task orientation.

Some task-related questions a teacher must answer are: (1) How much time do I spend planning for teaching and getting my students ready to learn? (2) How much time do I spend presenting, asking questions, and encouraging students to inquire or think independently? and (3) How much time do I spend assessing my learners' performance?

These questions pertain to how much content is presented, learned, and assessed, as opposed to how much time is delegated to procedural matters (e.g., taking attendance, distributing handouts, collecting homework, checking for materials). All teachers need to prepare their students to learn and want them to enjoy learning. However, most researchers agree that student performance is higher in classrooms with teachers who spend the maximum amount of time available teaching subject-specific content, as opposed to devoting large amounts of time to the process and materials needed to acquire that content. It follows that classrooms in which teacher-student interactions focus efficiently on subject matter content, which allows students the maximum opportunity to learn and to practice what was taught, are more likely to have higher rates of achievement. But these classrooms also are those in which the relationship between the teacher and learners provides the energy to motivate and challenge learners to reach increasingly higher levels of understanding (Tileston, 2010).

These topics are covered in Chapter 5, which prepares you to set goals and prepare objectives, and Chapter 6, which prepares you to execute them in your classroom with unit and lesson plans. Table 1.4 summarizes some of the indicators of a teacher's task orientation and the effective teaching strategies that are covered in these chapters.

Table 1.4 Indicators for Teacher Task Orientation

Being Task Oriented (An effective teacher . . .)	Examples of Teaching Strategies
1. Develops unit and lesson plans that reflect the most relevant features of the curriculum guide or adopted text (e.g., each unit and lesson objective can be referenced back to the curriculum guide or text)	Key each lesson to a unit plan, the curriculum guide, and the text to test its relevance. Confer with other teachers concerning the most relevant portions of the text and curriculum guide.
2. Handles administrative and clerical interruptions efficiently (e.g., visitors, announcements, collection of money, dispensing of materials and supplies) by anticipating and organizing some tasks and deferring others to noninstructional time	Establish a 5- to 10-minute restriction on how much time per every hour of instruction you will devote to noninstructional tasks. Defer all other tasks to before or after the lesson.
3. Stops or prevents misbehavior with a minimum of class disruption (e.g., has established academic and work rules to prevent intrusions into instructional time)	Establish rules for the most common misbehaviors, and post them conspicuously. Identify only the offender and offense during instructional time, deferring the consequence to later.
4. Selects the most appropriate instructional model for the objectives being taught (e.g., primarily uses direct instruction for knowledge and comprehension objectives and indirect instruction for inquiry and problem-solving objectives)	Using your unit plan, curriculum guide, or adopted text, divide the content to be taught into (a) facts, rules, and action sequences; and (b) concepts, patterns, and abstractions. Generally, plan to use direct instruction for the former content and indirect instruction for the latter.
5. Builds to unit outcomes with clearly definable events (e.g., weekly and monthly review, feedback, and testing sessions)	Establish a schedule in which major classroom activities begin and end with clearly visible events (e.g., minor and major tests, review and feedback sessions).

Engagement in the Learning Process

Student engagement in the learning process, called **engaged learning time**, is a key behavior that refers to the amount of time students devote to learning in your classroom. Student engagement is related to but different from a teacher's task orientation. We learned in the previous section that a teacher's task orientation should provide students the greatest possible opportunity to learn and to practice the material being taught.

Distinct from your task orientation—or the amount of time you devote to teaching a topic—is the time your students are actively engaged in learning the material being taught. This

Iofoto/Shutterstock

An important key behavior for effective teaching is the variability or flexibility of delivery during the presentation of a lesson.

Pearson eText
Video Example 1.2
Watch this class engage in a dynamic lesson about camouflage. Notice the learning journey each step of the instruction creates for the students.

has been called their *engagement rate*, or the percentage of time devoted to learning when your students are actually on task, attentive to, and engaged with the instructional materials and benefiting from the activities being presented. Even though a teacher may be task oriented and providing maximum content coverage, the students may be disengaged. This means they are not actively thinking about, working with, or using what is being presented.

Such disengagement can involve an emotional or mental detachment from the lesson that may or may not be obvious. When students jump out of their seats, talk, read a magazine, or leave for the restroom, they obviously are not engaged in instruction. Students also can be disengaged in far more subtle ways, such as looking attentive while their thoughts are many miles away. An unpleasant fact of life is that one-quarter of a class may be off task at any time, distracted for personal reasons that are often amplified by an impending lunch period, a Friday afternoon, or the day before a holiday. Correcting this type of disengagement may be difficult, requiring changes in the structure of the task itself and the cognitive demands being placed on the learner. Strategies for composing tasks and activities that elicit the active participation of your learners are presented in Chapters 8 through 12.

Several authors—Brophy (2010); Emmer and Evertson (2016); Evertson and Emmer (2016); and Evertson (1995)—have contributed useful suggestions for increasing learning time and, more importantly, student engagement during learning. Their work provides the following suggestions for teachers for promoting student engagement:

1. Set rules that let pupils attend to their personal needs and work routines without obtaining your permission each time.
2. Move around the room to monitor pupils' seatwork and to communicate your awareness of students' progress.
3. Ensure that independent assignments are interesting, worthwhile, and easy enough to be completed by each pupil without your direction.
4. Minimize time-consuming activities, such as giving directions and organizing the class for instruction, by writing the daily schedule on the board. This will ensure that pupils know where to go and what to do.
5. Make abundant use of resources and activities that are at or slightly above a student's current level of understanding.
6. Avoid timing errors. Act promptly to prevent misbehaviors from occurring or increasing in severity so they do not influence others in the class.

These teaching practices have also been found to be beneficial for small groups and independent seatwork (Jones et al., 2007). These and other more specific ways of increasing your students' engagement rate are explored in Chapters 11 and 12, which cover strategies for self-directed, constructivist, cooperative, and collaborative learning. Table 1.5 summarizes some of the indicators of student engagement and effective teaching strategies covered in these chapters.

Student Success Rate

Our final key to effective teaching behavior is student success rate. The term **student success rate** refers to the rate at which your students understand and correctly complete exercises and assignments.

A crucial aspect of the previously cited research on teacher task orientation and student engagement has been the level of difficulty of the material being presented. In some of these studies, level of difficulty was measured by the rate at which students understood and correctly answered questions on tests, exercises, and assignments. The three levels of difficulty are as follows:

- *High success.* The student understands the subject matter taught and makes only occasional careless errors.

Table 1.5 Indicators for Engaging Students in the Learning Process

Engaging Students Effectively in the Learning Process (An effective teacher . . .)	Examples of Teaching Strategies
1. Elicits the desired behavior immediately after the instructional stimuli (e.g., provides exercise or workbook problems to practice the desired behavior)	Schedule practice exercises or questions to immediately follow each set of instructional stimuli.
2. Provides opportunities for feedback in a nonevaluative atmosphere (e.g., asks students to respond as a group or covertly the first time through the material)	Require covert responding or nonevaluative (e.g., group) feedback at the start of a guided practice session.
3. Uses individual and group activities when needed (e.g., performance contracts, CD-ROMs, games and simulations, and learning centers as motivational aids)	Have individualized instructional materials available (e.g., remedial exercises or supplemental texts) for those students who may need them.
4. Uses meaningful verbal praise to get and keep students actively participating in the learning process	Maintain a warm and nurturing atmosphere by providing verbal praise and encouragement that is meaningful (e.g., explain why the answer was correct). Praise partially correct answers, with qualification.
5. Monitors seatwork and frequently checks progress during independent practice	Limit contact with individual students during seatwork to about 30 seconds each, providing instructionally relevant answers. Circulate among the entire class.

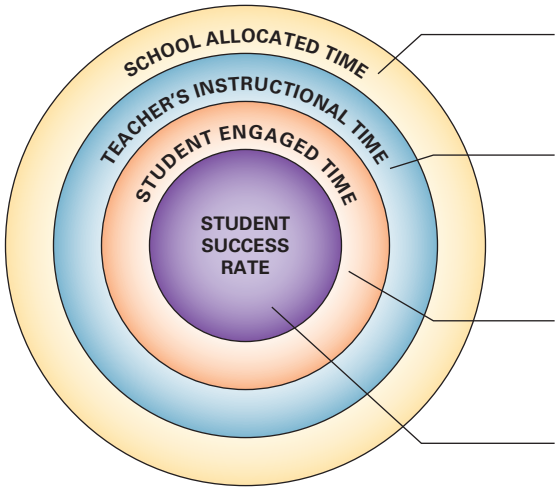
- *Moderate success.* The student has partial understanding but makes some substantive errors.
- *Low success.* The student has little or no understanding of the subject matter.

Not surprisingly, Good and Brophy (2007) and Marzano et al. (2010), found that student engagement—the time the learner is actively engaged with, thinking about, and working with the content being taught—was closely related to student success rate, as shown in Figure 1.4. Instruction that produces a moderate to high success rate results in increased performance because more content is covered at the learner's current level of understanding. This result was initially found for expository or didactic forms of instruction, with which learners are taught basic academic skills that are most easily learned through practice and repetition (Rosenshine, 1986). But more recent research has extended these findings to thinking skills instruction (Costa & Kallick, 2010; Brophy 2010). Their research has also shown that instruction promoting low error rates (high success) can contribute to increased levels of student self-esteem and positive attitudes toward the subject matter and the school, which provide the motivation to move toward higher levels of achievement.

The average student in a typical classroom spends about half of the time working on tasks that provide the opportunity for high success. But researchers have found that students who spend more than the average time in high-success activities have higher achievement, better retention, and more positive attitudes toward school. These findings have led to the suggestion that students should spend about 60 percent to 70 percent of their time on tasks that allow almost complete understanding of the material being taught with only occasional errors.

Moderate to high success rates can produce mastery of lesson content. But they can also provide the foundation for your students to apply what they have learned and to reason, problem solve, and think critically and independently about the content (Chaffee, 2010). Many teachers devote insufficient time to this stage of learning, which is particularly crucial for attaining the goals of problem solving and critical thinking. A key activity for the effective teacher is organizing and planning instruction that yields moderate to high success rates but then challenges

Figure 1.4 Levels of Time



learners to go beyond the information given to construct their own understandings and meanings from lesson content.

We will learn more about this approach to learning, called *constructivism* in this chapter and Chapters 10 and 11. Table 1.6 summarizes some of the indicators of student success and the teaching strategies covered in these chapters.

Summary of Five Key Behaviors

All five key behaviors—lesson clarity, instructional variety, teacher task orientation, student engagement, and success rate—are essential for effective teaching. Classroom researchers continue to

Table 1.6 Indicators for Student Success

Moderate to High Rates of Success (An effective teacher . . .)	Examples of Teaching Strategies
1. Establishes unit and lesson content that reflects prior learning (e.g., planning lesson sequences that consider task-relevant prior information)	Create a top-down unit plan in which all the lesson outcomes at the bottom of the hierarchy that are needed to achieve unit outcomes at the top of the hierarchy are identified. Arrange lessons in the order most logical for achieving unit outcomes.
2. Administers correctives immediately after the initial response (e.g., shows a model of the correct answer and how to attain it after the first crude response is given)	Provide for guided practice prior to independent practice, and provide a means of self-checking (e.g., a handout with the correct answers) at intervals during practice.
3. Divides instruction into small chunks (e.g., establishes discrete, focused lessons that can be easily understood by learners at their current level of functioning)	Plan interdisciplinary thematic units to emphasize relationships and connections that are easily remembered.
4. Plans transitions to new material in easy to grasp steps (e.g., changes instructional stimuli according to an established thematic pattern so that each new lesson is seen as an extension of previous lessons)	Extend the unit plan hierarchy downward to more specific lessons that are tied together above with a single unit theme and outcome.
5. Varies the pace at which stimuli are presented and continually builds toward a climax or key event	Use review, feedback, and testing sessions to form intervals of increasing and decreasing intensity and expectation.

study other effective teaching behaviors and work to attain a more thorough understanding of those already described. However, for the first time, research has provided a basis for more clearly defining effective teaching and for training teachers. These five behaviors are the skeleton of the effective teacher, and the remainder of this text will use these to construct the heart and the mind of an effective teacher.

You learned earlier there is no simple way to describe what it takes to become an effective teacher. Many activities must be orchestrated into patterns of behavior for your teaching to be effective. The identification of only five behaviors makes teaching appear deceptively simple. However, as you will see in the following section, your success in implementing these five key behaviors in your classroom will be assisted by other helping behaviors.

Helping Behaviors Related to Effective Teaching

Learning Outcome 1.3 Compare and contrast the approaches you can use as an effective teacher and discuss the ways in which you can meet each learner's diverse needs.

To complete our picture of an effective teacher, you will also need to know about some behaviors that can help you implement the five key behaviors in your classroom. These can be thought of as helping behaviors for performing the five key behaviors.

Research findings for helping behaviors, although promising, are not as strong and consistent as those that identified the five key behaviors. This is why helping behaviors need to be employed in the context of other behaviors to be effective, making them catalysts rather than agents by themselves. Among these helping behaviors are the following:

1. Using student ideas and contributions
2. Structuring lesson content
3. Questioning
4. Probing
5. Teacher affect (developing the teacher-learner relationship)

Using Student Ideas and Contributions

Using student ideas and contributions is a behavior that includes acknowledging, modifying, applying, comparing, and summarizing student responses to promote the goals of a lesson and encourage student participation. Note how any one of these activities could be used to achieve one or more of the five key behaviors:

- *Acknowledging:* Taking a student's correct response and repeating it to the class (to increase lesson clarity)
- *Modifying:* Using a student's idea by rephrasing it or conceptualizing it in your words or another student's words (to create instructional variety)
- *Applying:* Using a student's idea to teach an inference or take the next step in a logical analysis of a problem (to increase success rate)
- *Comparing:* Taking a student's idea and drawing a relationship between it and ideas expressed earlier by the student or another student (to encourage engagement in the learning process)
- *Summarizing:* Using what was said by a student or a group of students as a recapitulation or review of concepts taught (to enhance task orientation)

More recently, the use of student ideas and student contributions has been extended to reasoning, problem solving, and independent thinking. This has been achieved through **teacher-mediated dialogue** and constructivist teaching strategies that help learners restructure what is being learned using their own ideas, experiences, and thought patterns. Teacher-mediated dialogue asks learners not just to respond with a correct answer but also to internalize the meaning of what was learned by elaborating, extending, and commenting on it using their own thoughts. In this manner, learners are encouraged to communicate the processes by which they are learning, thereby helping them to construct their own meanings and understandings of the content (Chaille, 2007; Fosnot, 2005; Henson, 2009). We will present strategies for constructivist teaching and teacher-mediated dialogue in Chapters 10 and 11.

Use of student ideas and contributions also can increase a student's engagement in the learning process and has become a frequently used catalyst for helping achieve that key behavior (Emmer & Evertson, 2016; Evertson & Emmer, 2016). Consider this brief instructional dialogue, which uses student ideas to promote engagement:

Teacher: Tom, what is the formula for the Pythagorean theorem?

Tom: $c^2 = a^2 + b^2$.

At this point, the teacher simply could have said, "Good!" and gone on to the next question. Instead, the teacher continues:

Teacher: Let's show that on the board. Here is a triangle; now let's do exactly as Tom said. He said that squaring the altitude, which is *a*, and adding it to the square of the base, which is *b*, should give us the square of the hypotenuse, which is *c*. Claudio, would you like to come up and show us how you would find the length of *c*, using the formula Tom just gave us?

Claudio: Well if *a* were equal to three and *b* equal to four, the way I would solve this problem would be to add the squares of both of them together and then find the square root—that would be *c*.

Teacher: So, we square the three, square the four, add them together, and take the square root. This gives us five, the length of the hypotenuse.

Which of the five ways of using student ideas are in this dialogue? First, by putting Tom's response graphically on the board, this teacher applies Tom's answer by taking it to the next step, constructing a proof. Second, by repeating orally what Tom said, the teacher acknowledges to the entire class the value of Tom's contribution. And third, by having another student prove the correctness of Tom's response, a summary of the concept is provided. All this is accomplished from Tom's simple (and only) utterance: $c^2 = a^2 + b^2$.

Research indicates that student ideas and contributions, especially when used in the context of the naturally occurring dialogue of the classroom, are more strongly and consistently related to student engagement than simply approving a student's answer with "Good!" (Brophy, 2010; Good & Brophy, 2007). The standard phrases we use to acknowledge and reward students ("Correct," "Good," "Right") are so overused that they may not always convey the reward intended.

Although the use of student ideas looks simple, it takes skill and planning. Even when you have not planned your response, you should be prepared to seize opportunities to incorporate student ideas and contributions into your lesson.

Structuring Lesson Content

Teacher comments made for the purpose of organizing what is to come or summarizing what has gone before are called *structuring*. Used before an instructional activity or question, structuring assists learners in bridging the gap between what they are capable of doing on their own and what they are capable of doing with help from the teacher, thereby aiding their understanding and use of the material to be taught. Used at the conclusion of an instructional activity or question, structuring reinforces learned content and places it in proper relation to other content already taught.

Both forms of structuring are related to student achievement and serve as effective catalysts for performing the five key behaviors.

Typically, before and after structuring takes the following form:

Teacher: (At beginning of lesson) OK, now that we have studied how the pipefish change their color and movements to blend in with their surroundings, we will study how the pipefish gathers its food. Most important, we will learn how the pipefish grow and provide the means for other fish, like the kind we eat for food, to flourish deep below the ocean's surface.

Teacher: (At end of lesson) So we have discovered that the pipefish protects itself by changing colors to blend in with plants on the ocean's floor and by swaying back and forth to fool its enemies. We might conclude from this that the pipefish evade rather than capture their natural enemies and feed close to the ocean's floor, where they can't be noticed. Can you think of when this clever strategy might not work, making the pipefish prey to other fish deep below the ocean's surface? (Palincsar & Brown, 1989)

This sequence illustrates some of the many ways you can use structuring. One way is to *signal* that a shift in direction or content is about to occur. A clear signal alerts students to the impending change. Without such a signal, students may confuse new content with old, missing the differences. Signals such as "Now that we have studied how the pipefish change their color and movements, . . . we will learn . . ." help students switch gears and provide a perspective that makes new content more meaningful.

Another type of structuring uses *emphasis*. Can you find a point of emphasis in the previous dialogue? By using the phrase "Most important," this teacher alerts students to the knowledge and understanding expected at the conclusion of this activity. This structuring helps the student to organize what is to follow, called an *advance organizer*.

In this instance, the students are clued to consider the factors that extend beyond the color and movement of the pipefish to include how they grow and provide the means for other fish to flourish. This makes the teacher's final question more meaningful ("Can you think of when this clever strategy might not work, making the pipefish prey to other fish deep below the ocean's surface?"). The students have been clued that such a question might be raised and that generalizations beyond the concepts discussed will be expected. Phrases such as "Now this is important," "We will return to this point later," and "Remember this" are called *verbal markers*. They can be used to emphasize your most important points.

In addition to verbal markers and advance organizers, the effective teacher organizes a lesson into an activity structure. An *activity structure* is a set of related tasks that differ in cognitive complexity and that, to some degree, may be placed under the control of the learner. Activity structures can be built in many ways (e.g., cooperatively, competitively, independently) to vary the cognitive demands they make on the learner and to give tempo and momentum to a lesson. For the effective teacher, they are an important means for engaging students in the learning process and moving them from simple recall of facts to the higher response levels that require reasoning, critical thinking, and problem-solving behavior.

Questioning

Questioning is another important helping behavior. Few other topics have been researched as much as the teacher's use of questions (Dantonio & Beisenherz, 2001; Falk & Blumenreich, 2005; Lewin, 2009; Nadler & Chandon, 2010). One of the most important outcomes of research on questioning has been the distinction between *content questions* and *process questions*.

Content Questions. Teachers pose content questions to have the student deal directly with the content being taught. An example is when a teacher asks a question to see whether students can recall and understand specific material. The correct answer is known well in advance by the teacher. It also has been conveyed directly in class, in the text, or both. Few if any interpretations or alternative meanings of the question are possible.

Researchers have used various terms to describe content questions, such as the following:

Types of Content Questions

- *Direct:* The question requires no interpretation or alternative meanings.
  Example: What is the meaning of the word *ancient* in the story just read?
- *Lower order:* The question requires the recall only of readily available facts, as opposed to generalizations and inferences.
  Example: What was the mechanical breakthrough that gave the cotton gin superiority over all previous machines of its type?
- *Convergent:* Different data sources lead to the same answer.
  Example: What is one of the chemical elements in the air we breathe?
- *Closed:* The question has no possible alternative answers or interpretations.
  Example: What is the function of the central processing unit, or CPU, in a computer?
- *Fact:* The question requires the recall only of discrete pieces of well-accepted knowledge.
  Example: What is the result of dividing the number 47 by 6?

Some estimates have suggested that up to 80 percent of the questions teachers ask refer directly to specific content and have readily discernible and unambiguous correct answers (Nadler & Chandon, 2010). Perhaps even more important is the fact that approximately the same percentage of teacher-made test items (and behavioral objectives) are written at the level of recall, knowledge, or fact (Borich & Tombari, 2004). Therefore, test items, behavioral objectives, and most instruction seem to emphasize readily known facts as they are presented in curriculum guides, workbooks, and texts, leaving much less time for encouraging higher-order thinking, such as problem solving, decision-making, and valuing.

The art of questioning will become one of your most important skills as a teacher. The variety you convey to your students will be determined in large measure by your flexible use of questions. Asking questions is rarely an end in itself but rather a means of engaging students in the learning process by getting them to act on, work through, or think about the material presented.

Process Questions. From the previous discussion, you can see why not all questions should be content questions. There are different purposes for which questions can be asked, with the intent of encouraging different mental processes. To problem solve, to guide, to arouse curiosity, to encourage creativity, to analyze, to synthesize, and to judge also are goals of instruction that should be reflected in your questioning strategies. For these purposes, learning content is not a goal by itself but a means of achieving higher-order goals.

Researchers have used various terms to describe process questions, such as the following:

Types of Process Questions

- *Indirect:* The question has various possible interpretations and alternative meanings.
  Example: What are some of the ways you have used the word *ancient*?
- *Higher order:* The question requires more complex mental processes than simple recall of facts (e.g., making generalizations and inferences).
  Example: What were the effects of the invention of the cotton gin on attitudes in the North?
- *Divergent:* Different data sources will lead to different correct answers.
  Example: From what we know about the many forms of pollution today, what would be one of the first things we have to do to clean the air we breathe?
- *Open:* A single correct answer is not expected or even possible.
  Example: How have recent advances in computer technology influenced your life?
- *Concept:* The question requires the processes of abstraction, generalization, and inference.
  Example: Using examples of your own choosing, what are some of the ways division and subtraction are similar?

Can you see the difference between this set of process questions and the set of content questions that preceded it? Notice that the process questions encourage more thinking and problem solving by requiring the learner to use personal sources of knowledge to actively construct her or

his own interpretations and meanings, rather than acquiring understanding by giving back knowledge already organized in the form in which it was given. We will go deeper with this thinking about varied levels of complexity for varied purposes in Chapters 5 and 6.

A complement to effective questioning is the use of **wait time**. Wait time refers to the pause allowed after asking a question or following a student response. In some classrooms, wait time has been observed to be less than one second (Rowe, 1986). Extended wait time of at least three seconds promotes richer classroom discourse and higher cognitive level achievement in K-12 classrooms,

In Practice

Focus on Constructivism

Constructivism is a philosophy of learning that explains how people come to understand or know. In the late 1980s and early 1990s, many psychologists began to turn their attention to the constructivist view of learning, which assumes that learning is an active process in which learners internally construct knowledge from interactions with their physical and social environments. Constructivists believe that many of the things we know are influenced by context and prior experiences. Conceptual growth, from a constructivist perspective, results from sharing multiple perspectives and refining our interpretations in response to other perspectives.

Constructivists focus on engaging learners in richly textured contexts that are reflective of the natural environment. In such an environment, learners have opportunities to negotiate meanings and collaborate with each other. As a result, learners gain exposure to multiple perspectives and have opportunities to actively construct, refine, and take ownership of what they see and the meanings they derive from it. The knowledge constructed from this context is complex, personal, and insightful, which more easily allows learners to transfer it beyond textbook and classroom. By being able to construct meaning for themselves, students take ownership of their learning and teachers serve as facilitators who help students grow. Teachers are no longer information transmitters; instead, they provide guidance and scaffolding with which students can discover knowledge for themselves. In a constructivist learning environment, teachers promote a learning climate and context that extends students' experiences and interests, thus providing students with the opportunity to see multiple perspectives and develop their own understandings.

There are three essential attributes of constructivism:

1. Cognitive conflict or confusion is the stimulus for learning and influences the reorganization and nature of what is learned. According to Dewey (1938), it is the problem that leads to and is the organizer for learning, and according to Piaget (1977), it leads to a need for accommodation when the current experience cannot be assimilated into the learner's existing thought patterns.
2. Knowledge evolves through negotiation and contributing to how reality is constructed for each individual. Collaborative groups are important because learners can test their own understanding and examine the understanding and viewpoints of others.
3. Understanding comes from one's interactions with the environment. Cognition is not only within the individual but also comes from perceptions and experiences that are distributed across the entire context in which the learner is situated.

Pearson eText
Video Example 1.3

As you watch this video, observe how the student responds to the teacher based on her knowledge and the meaning she constructs within the learning experience.

By examining the perspectives of constructivism, we can recognize that learning is an ongoing and active process, and inquiry is an appropriate vehicle for facilitating the cognitively based constructivist approach to learning. In an inquiry-based learning environment, students are engaged in a hands-on, subject-related questioning, problem solving, or investigation during which they observe, question, and gather information to test their understanding in an ongoing and active process (Henson, 2009; Chaille, 2007).

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Constructivist teaching strategies emphasize the learner's direct experience and the dialogue of the classroom as instructional tools.

particularly for students with diverse learning needs (Tobin, 1987). Extended wait time influences classroom interactions and therefore should be used purposefully (Ingram & Elliott, 2016). Less wait time can support a flow or momentum in the classroom, and increased wait time can allow more opportunities for student engagement. The optimal use of wait time and pace of learning for the most effective construction of knowledge will vary just like your use of questioning and other helping behaviors.

As we saw earlier, this view of teaching and learning represents a movement in education called *constructivism*. **Constructivist teaching strategies** emphasize the learner's direct experience and the dialogue of the classroom as instructional tools while deemphasizing lecturing and telling. See In Practice: Focus on Constructivism.

Process questions and the use of probes, our next helping behavior, are important aids in constructivist thinking and activities in the classroom. Questioning is explored further in Chapter 8. We will have more to say about the role of direct experience and the use of constructivist strategies in the classroom in the chapters ahead, especially Chapters 10 and 11.

Probing

Another helping behavior is *probing*, which refers to teacher statements that encourage students to elaborate on an answer—either their own or another student's. Probing may take the form of a general question or can include other expressions that *elicit* clarification of an answer, *solicit* additional information about a response, or *redirect* a student's response in a more fruitful direction. Probing often is used to shift a discussion to some higher thought level.

Generally, student achievement is highest when the eliciting, soliciting, and (if necessary) redirecting occur in cycles. This systematically leads the discussion to a higher level of complexity, as when interrelationships, generalizations, and problem solutions are being sought. In this manner, you may begin a lesson with a simple fact question; then by eliciting clarification of student responses, soliciting new information, or redirecting an answer, you can move to a higher level of questioning.

Constructivist teaching strategies emphasize the learner's direct experience with the content being taught and the dialogue of the classroom as instructional tools.

A typical cycle might occur in the following manner:

Teacher:	Sanjay, what is a scientific experiment?
Sanjay:	Well, it's when you test something.
Teacher:	But what do you test? (Elicit)
Sanjay:	Mmm, something you believe in and want to find out if it's really true.
Teacher:	What do you mean by that? (Solicit)
Mary:	He means you make a prediction.
Teacher:	What's another word for *prediction*? (Redirect)
Oscar:	Hypothesis. You make a hypothesis and then go into the laboratory to see if it comes true.

Now find the teacher's soliciting, eliciting, and redirecting behaviors in the remainder of the dialogue:

Teacher: OK. So a scientist makes a prediction or hypothesis and follows up with an experiment to see if it can be made to come true. Then what?

Quentin: That's the end!

Teacher: (No comment for ten seconds; then discussion continues.) Is the laboratory like the real world?

David: The scientist tries to make it like the real world, but it's much smaller, like the greenhouse pictured in our book.

Teacher: So what must the scientist do with the findings from the experiment, if they are to be useful? (No one answers, so the teacher continues.) If something important happens in my experiment, wouldn't I argue that what happened could also happen in the real world?

Sanjay: You mean, if it's true in a specific situation, it will also be true in a more general situation?

Margot: That's making a generalization.

Teacher: Good. So we see that a scientific investigation usually ends with a generalization. Let's summarize. What three things does a scientific investigation require?

Class: A prediction, an experiment, and a generalization.

Teacher: Good work, class.

Notice that all of the ingredients in this teacher's lesson were provided by the class. The concepts of hypothesis, experiment, and generalization were never defined for the class. The students defined these concepts for themselves with only an occasional "OK" or "Good" from the teacher to let them know they were on track. The teacher's role was limited to *eliciting* clarification, *soliciting* additional information, and *redirecting* the discussion. The purpose of this cycle of eliciting, soliciting, and redirecting is to promote inquiry and independent discovery of the content of the lesson. Generally, retention of material learned has been shown to be greater from inquiry teaching than from formal lecturing methods (Conant & Carin, 2008; Llewellyn, 2007).

Teacher Affect

Anyone who has ever been in a classroom where the teacher's presentation was lifeless, static, and without vocal variety can appreciate the commonsense value of the affective side of teaching. However, unlike the behaviors discussed previously, affect cannot be captured in transcripts of teaching or by classroom interaction instruments. Narrowly focused research instruments often miss a teacher's affective nature, which emerges from a more holistic view of the classroom. This affective nature is the foundation on which you can build a warm and nurturing relationship with your learners.

What the instruments miss, the students see clearly. Students are good perceivers of the emotions and intentions underlying a teacher's actions, and they often respond accordingly. A teacher who is excited about the subject being taught and shows it by facial expression, voice inflection, gesture, and movement communicating respect and caring for the learner is more likely to hold

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Effective teachers provide a warm and encouraging classroom climate by letting students know help is available.

the attention of students and motivate them to higher levels of achievement than one who does not exhibit these behaviors.

Students take their cues from these affective signs and lower or heighten their engagement with the lesson accordingly. Enthusiasm is an important aspect of a teacher's affect. *Enthusiasm* is the teacher's vigor, involvement, excitement, and interest during a classroom presentation, and willingness to share this emotion with learners, who will want to respond in kind. We know from experience that enthusiasm is contagious. It can be displayed to your students in many ways, the most common being vocal inflection, gesture, eye contact, and animation. Most important, however, is how you coordinate these signs to communicate that you care about and respect the experiences, knowledge, and understandings your students bring to the classroom. Research has found a teacher's enthusiasm to be important in promoting student engagement as well as achievement (Kuh, Kinzie, Smith, & Whitt, 2005; Tischler, 2005).

No one can maintain a heightened state of enthusiasm for very long without becoming exhausted emotionally. Nor is this what is meant by the word *enthusiasm*. A proper level of enthusiasm is more subtle, and perhaps that is why it has been so difficult to research. A proper level of enthusiasm involves a delicate balance of vocal inflection, gesturing, eye contact, and movement. In combination, these behaviors send to students a unified signal of vigor, involvement, and interest that conveys the message that you care. Timing and the ability to incorporate these behaviors into a consistent pattern make possible an unspoken behavioral dialogue with your students that is every bit as important as your spoken words.

Pearson eText
Video Example 1.4
Watch this video to learn how diversity plays a major role in how to prepare lessons effectively.

Effectively Teaching Learners with Diverse Learning Needs

Religion, race, ethnicity, special needs, giftedness, socioeconomic status (SES), language proficiency, military, migrant status, gender identity, foster/adoption—these are just scratching the surface of the host of things that contribute to our individual identities and can influence our learning needs. As we have addressed in this chapter, effective teachers will be poised for success with any student when they keep healthy teacher-student relationships as a top priority. You do not need to be an expert in all the ways student identities may vary. Rather, always strive to connect with each and every unique student, which will allow you to learn, collaborate, and advocate effectively.

Culturally responsive teaching (also referred to as *culturally sensitive pedagogy*) provides guidance to heighten educator's awareness of and ability to address gaps between school culture and home/community culture that can interfere with academic achievement (Gay, 2010). Culturally responsive teaching is about being vigilant for barriers to learning and committed to breaking them down. Barriers may be more noticeable, such as using a wheel chair or having limited language proficiency in English. More often, barriers are less noticeable, such as level of discomfort while fasting for Ramadan, emotional baggage from being bullied for being gay, or the extra time needed to finish work from having a reading level below grade level. Culturally responsive teachers are driven by the goal of true equality in access to learning, whatever that means for each individual learner.

In this book you will continue to learn more about culturally responsive teaching and other guidance for reaching the diverse needs of all learners. For example, you will work with Universal Design for Learning (UDL), developed by the Center for Applied Special Technology (CAST), when planning for units and lessons in Chapter 6. There is a great deal to know about culturally responsive teaching that goes beyond the scope of this book, and you are encouraged to pursue this knowledge through reading, professional conferences, and other professional development opportunities as you continue to develop yourself as an effective teacher.

One of the identity factors that often creates multiple and persistent barriers is **socioeconomic status (SES)**. The term can mean different things, but generally, it is an approximate index of one's income and education level. For the classroom researcher, the SES of students is determined directly by the income and education of their parents or indirectly by the nature of the school the students attend. For example, a school in which a high percentage of students qualify for a nationally sponsored free or reduced price lunch program due to the income level of their parents may be considered a lower-SES school.

Some schools are in impoverished areas, where the overall income and education levels of the community are low, whereas other schools are located in more affluent communities. Community-level factors have significant effects on school success. One example is community-based social capital, or the nature and norms of adult-child interactions in the community, which translates to greater odds for

success in school when the nature and norms of teacher-student interactions are more similar and/or accommodating to the community-based social capital of their students (Sun, 1999; Putnam, 2001).

Many schools in impoverished areas qualify for special financial assistance from the federal government. These schools are called *Title I* schools, with the majority of students coming from lower-SES homes who may be disadvantaged, at risk of school failure, have limited English proficiency, and/or belong to a cultural or ethnic minority. In our nation's 25 largest cities, SES is strongly tied to culture or ethnicity. About eight percent of school funding comes from the federal level, and it is primarily concerned with matters of equity (United States Department of Education). Equity is at the heart of federal legislation such the Individuals with Disabilities Education Act (IDEA), Every Student Succeeds Act (ESSA), Race to the Top, and No Child Left Behind. Programs such as *Title I* and *Head Start* provide opportunities and support for students with disadvantages. However, the majority of funding and decision-making about how schools serve their students, families, and communities comes from the 92 percent of funding for schools left up to the states. We will have more to say about these and other national programs and their effect in your classroom and on your teaching in the chapters to come.

Because of the conditions to which lower- and higher-SES students are tied, such as access to books, computers, and other resources within and outside the home, they are likely to exist for some time. Classroom researchers have studied the teacher practices that promote the most achievement in these different settings. Researchers such as Ariza (2010); Good and Brophy (2007); McNary et al. (2005); and Nieto and Bode (2012) have provided suggestions for teaching these student populations, while the research of others has helped teachers understand the learning needs of these student populations (Delpit, 2013; Diaz-Rico, 2012; Echevarria & Graves, 2011; Egbert & Ernst-Slavit, 2010). Some of these teaching behaviors, applicable to both higher- and lower-performing learners are summarized in Table 1.7.

Table 1.7 Some Teaching Behaviors for Helping to Narrow the Achievement Gap

Teaching Behaviors	Examples
Teacher affect	Provide a warm and encouraging classroom climate by consistently letting students know help is available.
Student responses	Encourage an initial response from one student before moving to the next student.
Content organization	Present material with the opportunity to practice what has been learned immediately afterward.
	Show how related pieces of information fit together and are to be applied before beginning each new segment of instruction.
Classroom instruction	Emphasize applications before teaching patterns and abstractions. Present the most concrete material first.
	Monitor each student's progress at regular intervals. Use progress charts to help record learner improvement.
	Help students who need help immediately. Use peer and cross-age tutors, if necessary.
	Maintain the structure and flow between activities to maintain momentum. Organize and plan transitions in advance.
Individualization	Supplement the standard curriculum with specialized materials to meet the needs of individual students when needed.
	Emphasize the importance of students' personal experiences to promote interest and attention.
Correcting	Check right answers by requiring oral or written reasoning.
Thinking and decision-making	Supplement the curriculum with individualized material, some of which is slightly above students' current level of attainment.
	Assign homework and/or extended projects that require students to obtain original sources of information from outside the classroom.
Classroom interaction	Encourage student-to-student and student-to-teacher interactions in which students take responsibility for evaluating their own learning.
Verbal activities	Engage students in verbal questions and answers that go beyond the text and workbook content.

The Complexity of Teaching: Drawing on 30 Years of Professional Teaching Standards

Learning Outcome 1.4 Discuss the role that standards play in teaching and learning.

At this point, you might think an effective teacher simply is one who has mastered all of the key behaviors and helping behaviors. But teaching involves more than knowledge of how to perform individual behaviors. Much like an artist, who blends color and texture into a painting to produce a coherent impression, so must an effective teacher blend individual behaviors into teaching practices that promote student achievement. Teaching practices are larger than individual teaching behaviors that blend key and helping behaviors in different degrees. To be effective requires the orchestration and integration of the key and helping behaviors into meaningful patterns and rhythms that can achieve the goals of instruction within your classroom.

The truly effective teacher, then, knows how to execute individual behaviors with a larger purpose in mind. This larger purpose requires placing behaviors in sequences and patterns that accumulate to create an effect greater than can be achieved by any single behavior or small set of behaviors. This is why teaching involves a sense of timing and pacing that cannot be conveyed by any list of behaviors. The interrelationships among these behaviors, giving each its proper emphasis in the context of your classroom, are important to the effective teacher, and it is the combination of curriculum, learning objectives, instructional materials, and learners that provides the context for the proper blend. We will have more to say about these patterns of teaching effectiveness in the chapters ahead.

Professional Teaching Standards

The effective teaching methods described in this book draw on more than 30 years of research on effective teaching and on national and state standards for the teaching profession that have been closely aligned with current views of how and what students and teachers should learn.

For decades, teaching in the United States reflected a direct instruction model. Teachers were expected to present or transmit knowledge to students, who were expected to receive, store, and return that knowledge upon request (Weiss & Weiss, 1998). Many researchers and educators have challenged this view, suggesting that learners do not simply receive knowledge; rather, they actively construct knowledge through interacting with the social, cultural, and linguistic context in which an experience occurs. Effective teachers function as able facilitators, coaches, and guides for students' knowledge-building processes. In other words, students can and should be taught to become agents of their own learning.

Reflecting this more interactive view of teaching, the National Board for Professional Teaching Standards (NBPTS) was formed in 1987 with the goal of achieving three major outcomes:

1. To establish high and rigorous standards for what effective teachers should know and be able to do
2. To develop and operate a national, voluntary system to assess and certify teachers who meet these standards
3. To advance related education reforms for the purpose of improving student learning in schools in the US

Governed by a board of directors, the majority of whom are classroom teachers, the National Board for Professional Teaching Standards (NBPTS) (2001) lists five propositions essential to accomplished teaching (see https://www.nbpts.org/standards-five-core-propositions/).

During the same year that the NBPTS was formed (1987), the Interstate New Teacher Assessment and Support Consortium (InTASC) was formed to create standards that could be reviewed by professional organizations and state agencies as a basis for licensing beginning teachers. The **InTASC standards** (Miller, 1992) were written as ten principles, which were then further described

in terms of teacher knowledge, dispositions, and performances—in other words, what a beginning teacher should know and be able to do.

In 2011 the Council of Chief State School Officers (CCSSO) updated the InTASC Core Teaching Standards by making them applicable to the growth and development of all, not just beginning, teachers. These updated standards were also written to be compatible with the Common Core State Standards for students in math and English language arts, thereby providing a single coherent system by which teachers can be prepared, supported, and licensed.

Because you will probably work with the InTASC standards during your professional development program (and perhaps with the NBPTS standards for advanced certification later in your career), this text discusses research-based practices used by effective teachers to achieve the InTASC and NBPTS standards. The following sections outline the ten InTASC standards, each tagged with the chapters and appendices in this text that will provide you with the effective teaching methods for attaining them.

The Learner and Learning

Standard #1: Learner Development. The teacher understands how learners grow and develop, recognizing that patterns of learning and development vary individually within and across the cognitive, linguistic, social, emotional, and physical areas, and designs and implements developmentally appropriate and challenging learning experiences. [Chapters 2, 6–7, 11]

Standard #2: Learning Differences. The teacher uses understanding of individual differences and diverse cultures and communities to ensure inclusive learning environments that enable each learner to meet high standards. [Chapters 1–2, 11–12]

Standard #3: Learning Environments. The teacher works with others to create environments that support individual and collaborative learning, and that encourage positive social interaction, active engagement in learning, and self-motivation. [Chapters 3, 7–8, 10–11]

Content Knowledge

Standard #4: Content Knowledge. The teacher understands the central concepts, tools of inquiry, and structures of the discipline(s) he or she teaches and creates learning experiences that make these aspects of the discipline accessible and meaningful for learners to assure mastery of the content. [Chapters 5–6, 9, 13]

Standard #5: Application of Content. The teacher understands how to connect concepts and use differing perspectives to engage learners in critical thinking, creativity, and collaborative problem solving related to authentic local and global issues. [Chapters 1–2, 10, 12]

Instructional Practice

Standard #6: Assessment. The teacher understands and uses multiple methods of assessment to engage learners in their own growth, to monitor learner progress, and to guide the teacher's and learner's decision-making. [Chapters 5–6, 13]

Standard #7: Planning for Instruction. The teacher plans instruction that supports every student in meeting rigorous learning goals by drawing upon knowledge of content areas, curriculum, cross-disciplinary skills, and pedagogy, as well as knowledge of learners and the community context. [Chapters 2, 5–7]

Standard #8: Instructional Strategies. The teacher understands and uses a variety of instructional strategies to encourage learners to develop deep understanding of content areas and their connections, and to build skills to apply knowledge in meaningful ways. [Chapters 8–12]

Professional Responsibility

Standard #9: Professional Learning and Ethical Practice. The teacher engages in ongoing professional learning and uses evidence to continually evaluate his/her practice, particularly the effects of his/her choices and actions on others (learners, families, other professionals, and the community), and adapts practice to meet the needs of each learner. [Chapters 1–2, 4, 6]

Standard #10: Leadership and Collaboration. The teacher seeks appropriate leadership roles and opportunities to take responsibility for student learning, to collaborate with learners, families, colleagues, other school professionals, and community members to ensure learner growth, and to advance the profession. [Chapters 2–4, 13]

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Each standard is accompanied by specific professional attitudes and dispositions that can assure its smooth and seamless application. For example, the teacher is expected to implement Standard 2, Learning Differences, in the context of the belief or disposition that all children can learn at high levels and that diverse family backgrounds and the abilities and interests of all learners are to be respected and integrated into instructional practice to better engage students in the learning process.

The above standards will be an important guide for you in preparing for exit tests for your teacher preparation program and licensure, such as the Praxis Series: Professional Assessments for Beginning Teachers (see Figure 1.5) or the Teaching Performance Assessment (edTPA) (see Figure 1.6). Both assessments are in alignment with the **Common Core** and inTASC standards.

Figure 1.5 About the Praxis

The Praxis™ Series: Professional Assessments for Beginning Teachers is a set of validated assessments that provide information to colleges, state education agencies, and school districts for graduation, licensing, and hiring decisions. In addition, colleges and universities may use the basic academic skills component of the Praxis Series to qualify individuals for entry into teacher education programs.

The three areas of assessment in the Praxis Series are addressed as follows:

1. For entering a teacher training program: Praxis I: Pre-professional Skills Tests
2. For licensure into the teaching profession: Praxis II: Subject Assessments
3. For the first year of teaching: Praxis III: Teacher Performance Assessments

The Praxis I: Pre-Professional Skills Tests measure basic skills in reading, writing, and math. The assessments serve as an opportunity for those seeking teacher training to demonstrate competence with the academic skills needed for a career in education. The test for each skill domain is one hour in duration, and questions are in multiple-choice format, with the exception of the writing test, which includes an essay section.

The Praxis II: Subjects Assessments include specialty area tests in over 120 subject areas taught in grades pre-K–12 designed to assess content knowledge at the end of your teacher preparation program in the areas for which you are being trained and licensed to teach. The number and content of the tests taken are indicated by the subject areas and/or grade levels for which you wish to receive certification and determined by the state or other licensing agency from which you seek certification. Although formats vary among tests, most of the tests are from one to two hours in duration and include a combination of short-answer essay questions based on a specific teaching situation or passage and/or multiple-choice questions. Some typical content tests are Early Childhood Education; Biology; Physics; Business Education; General Science; English Language, Literature and Composition; Physical Education; Social Studies; and Art. In addition to specific subject assessments the Praxis II offers:

- **Principles of Learning and Teaching (PLT) Tests**, which assess general pedagogical knowledge-related particular grade ranges: Early Childhood, K–6, 5–9, and 7–12.
- **Teaching Foundations Exams (TFE)**, which assess pedagogical knowledge related to broad content areas: multisubject (elementary), English Language Arts, Mathematics, and Science.

The Praxis III: Teacher Performance Assessments are designed to evaluate the instructional skills of beginning teachers within the classroom context. Assessment is conducted through direct observation of teaching, review of documentation provided by the teacher, and structured interviews. Assessment criteria is organized under four domains:

- Instructional Planning
- The Classroom Environment
- Delivering Instruction
- Teacher Professionalism

Visit www.ets.org for more information.

Figure 1.6 About the edTPA

The **Teacher Performance Assessment** examines your understanding of five critical dimensions of teaching.

1. **Planning Instruction and Assessment**
   Examinees are asked to demonstrate how their lesson plans align with content standards, build upon students' prior academic learning and life experiences, and how instruction is differentiated to address student needs.
2. **Instructing and Engaging Students in Learning**
   Examinees are asked to demonstrate subject-specific pedagogical strategies and how they elicit and monitor student responses to develop subject matter understandings.
3. **Assessing Student Learning**
   Examinees are asked to provide examples of classroom-based assessments, provide student work samples and evidence of teacher feedback, and analyze the strengths and needs of several focus students.
4. **Analysis of Teaching Effectiveness**
   Examinees are asked to address their skills in Planning, Instruction, and Assessment. In planning, examinees are asked to explain and justify their plans based on their knowledge of diverse students' learning strengths and needs. In instruction they are asked to explain and justify which aspects of a segment of a lesson were effective, what might be changed, and what steps should follow.
5. **Academic Language Development**
   Examinees are asked to report on their ability to support students' oral and written use of academic language to deepen subject matter understanding using student work samples and/or video recordings of student engagement.

The Praxis II examines your understanding of human growth and development, classroom management, instructional design and delivery, evaluation and assessment, and curriculum-specific knowledge. To prepare you for this or similar examinations, example case histories incorporating each of the ten InTASC standards are provided at the end of each chapter. Constructed-response and multiple-choice questions and answers corresponding to each case history follow the format of the Praxis exam. Figure 1.5 provides an overview of the Praxis exam.

The edTPA assessment is built around three to five days of standards-based, subject-specific classroom instruction that is provided by the candidate at the end of the student teaching or clinical experience. The assessment is a multiple measures assessment of teaching submitted by the candidate that addresses planning, instruction, assessment, and analysis of their teaching that includes lesson plans, assessment devices, unedited video recordings of the candidate teaching and examples of their teaching materials that demonstrate how they planned their instruction, adapted it for diverse learners, and assessed student work. Each assessment is scored by qualified teachers who are subject matter experts with experience with beginning teachers. Figure 1.6 provides an overview of the edTPA assessment process. Note that requirements can vary from state to state. For example, California has the CalTPA instead of the edTPA.

Your Transition to the Real World of Teaching

Learning Outcome 1.5 Evaluate the factors that are critical to your transition into the real world of teaching.

An important question for you as a prospective teacher is, "What type of knowledge and experiences will be needed to pass successfully into the real world of teaching?" The chapters ahead convey the types of knowledge that should move you quickly up the ladder of knowledge and experiences that make an effective teacher. But before learning about the tools and techniques that will

help you progress up this ladder, you should take a moment to reflect on your own concerns about teaching at this point in your career.

Teaching is a career that is unique from many other professions in that every new teacher enters it with a lifetime of personal experience already built up. This experience of personal participation is what Lortie calls *apprenticeship of observation* (1975). Your own *apprenticeship of observation* about schools, teaching, and learning will be a major source of your reflection. Most of us have some powerful examples of effective teaching from our own personal experiences that help us set our aspirations. Most of us can have some personal experiences that help us identify our own *what not to dos*. Positive or negative, our personal concepts of how school, teaching, and learning are done can be challenging to change. Identifying concerns and taking steps to implement change will be an ongoing part of your professional pursuit of effective teaching.

Teacher Concerns

Appendix A contains the Teacher Concerns Checklist, which is a 45-item self-report instrument for assessing the stages of concern with which teachers, like you, most strongly identify at different periods in their careers. Using the Teacher Concerns Checklist, you can rank your own level of **teaching concerns** and, using the scoring instructions provided, express the concerns with which you identify most closely. After reviewing the Checklist, return to this chapter and read further to learn more about this interesting facet of your growth and development as a teacher.

STOP now and complete the Teacher Concerns Checklist in Appendix A.

Now that you have ranked your most important teaching concerns, let's see what it means for your teaching. Your transition to the real world of teaching will usher in the first stage of teacher development, sometimes called the *survival stage* (Borich, 1993; Borich & Tombari, 1997; Fuller, 1969). The distinguishing feature of this first stage of teaching is that your teaching concerns and plans focus on your own well-being more than on the teaching task or your learners. Bullough (1989) has described this stage as "the fight for one's professional life." During it, your concerns may include the following:

- Will my learners like me?
- Will they listen to what I say?
- What will parents and other teachers think of me?
- Will I do well when I'm being observed?

During this time, behavior management concerns will become a major focus of your planning efforts. For most teachers, survival, or *self*, concerns begin to diminish rapidly during the first months of teaching, but there is no precise time when they end. What signals their end is the transition to a new set of concerns and planning priorities. This new set of priorities focuses on how best to deliver instruction. This stage is one marked by concerns about the teaching *task*. At this stage, you are beginning to feel confident that you can manage the day-to-day routines of the classroom and deal with a variety of behavior problems. You are at the point where you now can plan your lessons without an exclusive focus on managing your classroom. Your planning turns instead toward improving your teaching skills and achieving greater mastery over the content you are teaching. Typically, your concerns during this stage may include:

- Where can I find individualized instructional materials?
- Will I have enough time to cover the content?
- Where can I get ideas for an interdisciplinary thematic unit?
- What is the best way to teach writing skills in a diverse class?

The third and highest level of teacher planning is characterized by concerns that have less to do with management and lesson delivery and more with the impact of your teaching on learners. This stage of planning is sometimes referred to as the *impact stage*. At this stage, you will naturally view learners as individuals and will be concerned that each of your students fulfills her or his potential to learn. At this, the most advanced stage, your principal concerns may include:

- How can I increase my learners' feelings of accomplishment?
- How do I meet my learners' social and emotional needs?
- What is the best way to challenge my unmotivated learners?
- What skills do my learners need to best prepare them for the next grade?

Concerns for *self*, *task*, and *impact* are the natural stages that most teachers pass through, representing a developmental growth pattern extending over months and even years of a teacher's career. Although some teachers may pass through these stages more quickly than others and at different levels of intensity, Fuller suggests that almost all teachers can be expected to move from one to another, with the most effective and experienced teachers expressing student-centered (impact) concerns at a high level of commitment.

Fuller's concerns theory has several other interesting implications. A teacher might return to an earlier stage of concern—for instance, moving from a concern for students back to a concern for task as a result of having to teach a new grade or subject or moving from a concern for task back to a concern for self as a result of having to teach different and unfamiliar students. The second time spent in a stage might be expected to be shorter than the first.

Finally, the three stages of concern need not be exclusive of one another. A teacher could have concerns predominantly in one area while still having concerns at lesser levels of intensity in the other stages.

Record your scores on the Teacher Concerns Checklist that you have just completed, and compare them with your scores at the end of this course to find out in what direction your concerns may have changed.

Pearson eText
General Methods Simulation 1.1

Complete this simulation to explore options you will have as you develop into the effective teacher you want to be in the real world of teaching.

Teacher Change

Your concerns about teaching, along with your goals and passions, will be driving forces behind your growth and development as an effective educator. Guskey's teacher change cycle (1986) captures the cyclical process in four stages: 1) professional development, 2) change in teachers' classroom practices, 3) change in student learning outcomes, and 4) change in teachers' beliefs and attitudes. In a nutshell, teacher growth is just like student growth: learn something new, try it out, feel the success (or loop back to the learning stage for fine-tuning), and ultimately internalize the new big ideas. Teacher change is unique to each individual, and self-reflection is a key component (discussed in more detail in Chapter 6), but change does not happen in a vacuum. On the contrary, teacher change is fueled and facilitated by professional interactions.

A few key sources for professional interactions that facilitate teacher change include professional development, Professional Learning Communities (PLCs), professional collaboration, and collaborative or co-teaching experiences.

Professional development will be required and provided by schools and districts during particular points of the school year. Professional development will also be required for recertification by your state. When possible, choose and seek out professional development aligned with your concerns, goals, and passions.

Professional Learning Communities (PLCs) are perhaps best defined by a simple restructuring of the term: a community of professionals engaged in learning together (DuFour & Eaker, 2009). PLCs will come in a variety of forms: grade-level teams, vertical (cross grade-level teams), content area teams, special projects, interschool teams, and so on. One valuable endeavor PLCs undertake is work with data charts. Data charts are any variety of collection or graphic representation of student performance data. The intention of data collection is to measure and monitor student progress, as well as to inform instruction. This work should be approached with caution, because

data collection systems can unintentionally foster a "data-rich, information-poor" syndrome without ongoing reflection on the purpose the data serves. This can be an important function of a PLC, which then yields conclusions about new needs, concerns, and goals.

Professional collaboration is critical to maximizing teacher change and benefiting from interdiscipline knowledge. The following is a list of professionals employed in schools and districts who offer specialized knowledge teachers can seek out for professional collaboration. These specialists can support teacher growth and student advocacy efforts:

- literacy specialist or coach
- math specialist or coach
- gifted-education specialist
- education-technology specialist
- English-Language Learner (ELL) specialist
- librarian
- counselor
- nurse
- psychologist
- special education teacher
- social worker
- speech-language pathologist
- physical therapist
- occupational therapist

The list above is not exhaustive, and roles may have slightly different titles in different places. Schools have evolved to include specialized roles like the ones listed above in acknowledgement that the classroom teacher cannot effectively be all of these things on their own. Therefore, remember to seek and utilize specialists; they are there for you and your students.

Finally, collaborative and co-teaching is often intertwined with the sources of professional interaction discussed above. Collaborative and co-teaching allows the opportunity for parallel and shared teacher growththat is enriched by the coordination with other professionals. In their book, *Interactions: Collaboration Skills for School Professionals*, Friend and Cook (2004) share six basic models for co-teaching:

1. One Teach, One Observe—In this model, one person teaches while the other conducts targeted observations of the teaching and learning.
2. One Teach, One Assist—In this approach, one person has primary teaching responsibility while the other circulates to assist students.
3. Parallel Teaching—For this form of co-teaching, two teachers deliver the same instruction at the same time and divide the students to benefit from smaller class size.
4. Station Teaching—Teachers may capitalize on their specific strengths by assuming responsibility of teaching different objectives. A group of students would be taught something by one teacher and then something different by the other teacher.
5. Alternative Teaching—Sometimes particular students benefit from specialized attention. In this model one teacher has primary teaching responsibility, and the other teacher pulls students for specialized attention.
6. Team Teaching—In team teaching, both teachers work together to deliver the same content at the same time.

Collaborative and co-teaching is another way to benefit from the knowledge and support of other professional educators. Learning with and from each other will inevitably promote positive teacher change.

For Further Information

During the past decade, a number of national and state efforts—such as those by the National Council of Teachers of Mathematics (NCTM), the International Literacy Association (ILA), and others—have sought to define the knowledge and performance for students or teachers in particular subject areas. The Mid-continent Regional Educational Laboratory (McREL) has created a large database that synthesizes many of these efforts. Visit their website to learn more about standards.

The following is a case history and test preparation exercise intended to help you prepare for the licensure exam, which may be required by your teacher preparation program and your state for certification and licensing. You will find similar case histories at the end of each chapter. Based on the objectives and content of the Praxis II: Principles of Learning and Teaching exam and the InTASC and NBPTS standards, these in-depth case histories represent key concepts in the chapter. (See Figure 1.5 for the composition of the Praxis II.) When you have completed the test preparation exercises, you will find a rubric and examples of scored student responses for the short-answer question, the correct answer and an explanation for each multiple-choice question, and additional questions pertaining to licensure test content. Although not intended as a comprehensive assessment of chapter content, these questions provide a targeted rehearsal for preparing you for the level of pedagogical knowledge and question formats that will be expected of you on the Praxis II exam and other exams that may be required at the end of your teacher preparation program.

Case History

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This Case History provides an authentic context for you to read and reflect on. What effective teaching methods did you read about in this chapter that you find demonstrated in the Case History? What recommendations or next steps can you think of based on what you learned in this chapter? Additional examination of this Case History is provided as an Application Exercise.

Mrs. Travis teaches seventh-grade English to a class of 29 students. In this class, there is a balance of boys and girls from low to high performing. Several students are mainstreamed, a few have limited English-speaking skills, and several are designated gifted. The majority perform at the average level. This case focuses in particular on the following three students.

Brady is a student with special needs who is new to the district. Her official classification is "emotional disability," but some of her standardized test scores—particularly those for reading comprehension and vocabulary—put her near the gifted level. Her assigned seat is in the rear corner of the classroom, and she seems to enjoy the detachment it offers. Much of the time, Brady is reading a novel; her current choice is Franz Kafka's *Metamorphosis*.

Dalia is an honor roll student whose high motivation and study habits, rather than her test scores, underlie her achievement. She is always the first to class and begins on the daily warm-up even before the bell rings. Dalia is painstaking about her writing and anxious to get everything right. Often she stays after class or school to ask additional questions about an upcoming assignment. She is intent on becoming the first of her family to go to college.

Jim, an average student, is tall and outgoing and very excited that he has made the school football team. He has a good sense of humor and often jokes with fellow classmates. Although he has good attendance and is never late for class, his study habits are not very good. Sometimes he forgets his book or brings the wrong notebook, which he often uses as an excuse to "take the day off." When he is on task, he often talks without raising his hand or interrupts other students in a burst of enthusiasm.

During the first several minutes of class, Mrs. Travis takes the roll while the class completes its usual warm-up, writing down the quote of the day, looking up synonyms for key underlined words, and finally paraphrasing the quote. Students also copy the daily lesson and homework assignment from the front board. A few students who have been absent go to the class calendar on the bulletin board to learn about makeup assignments.

Mrs. Travis asks Jim to read the quote: "The roots of education are bitter, but the fruit is sweet. Aristotle."

Jim reads from the board rather than his notebook, which he has forgotten today. Since he has not written down a synonym for the word *roots,* Mrs. Travis waits for him to look one up in the thesaurus. Jim takes his time but finally says, "Base."

"That's a good choice," Mrs. Travis tells Jim. While she calls on others, she quietly slips Jim a blank page and suggests he write down the warm-up now so he can transfer it to his notebook at home. She remains standing next to his desk as she asks for more synonyms from the class. Reluctantly, Jim begins to write.

Throughout the discussion of the quotation, Brady has been reading her novel. When Mrs. Travis asks her to read her paraphrase of the quote, she replies without hesitation: "The underlying foundation of learning can be difficult or harsh, but the rewards are immense and joyous." Brady is about to go back to her book, but Mrs. Travis probes.

"Can you give some examples of those 'bitter roots,' Brady?"

"Well, having to do lesson warm-ups, for example, keeping a notebook, and putting up with someone who can hardly read." She stares at Jim.

Mrs. Travis admits that schoolwork can be difficult. "Those are some examples, Brady. Now tell us about some of the 'sweet fruit.'"

There is no reply. After about ten seconds, Mrs. Travis probes, "Is reading a Kafka book sweet fruit?"

Brady responds with only a shrug. Mrs. Travis continues, "Well, if you like *The Metamorphosis,* I'd recommend you read *The Judgment* next." Brady looks up from her reading and stares at Mrs. Travis, a look of surprise stamped on her face. Then she writes down the title on her hand.

After a discussion, the class gives several examples of the "bitter roots" of education they would rather do without. The examples of the "sweet fruits" are a little more difficult to elicit, so Mrs. Travis changes gears.

"Well, maybe now you don't see too much 'sweet fruit' because you are in the midst of it, but what about when you graduate from high school or college? What rewards will your education provide?"

"I want to be first in my family to go to college," Dalia says.

"I'm going to get a football scholarship," adds Jim. Several others mention the cars they plan to buy when they finish their education. Just as the shared enthusiasm is on the edge of getting too noisy, Mrs. Travis directs students to a ten-minute writing assignment on today's lesson: The Rewards of Education.

For the next ten minutes, students write while Mrs. Travis walks around the room to monitor their progress and make suggestions. Even Brady lays aside the novel she has been reading to write.

Summing Up

Learning Outcome 1.1

- Early definitions of effective teaching focused primarily on a teacher's goodness as a person and only secondarily on his or her behavior in the classroom.
- Most modern definitions of effective teaching identify patterns of teacher-student interaction in the classroom that influence the cognitive and affective performance of students.
- Many studies found patterns of interaction between teacher and learner that consistently produced desirable student outcomes in the form of greater motivation to learn, higher achievement, increased problem solving, and improved learning skills.

Learning Outcome 1.2

- Five key behaviors for effective teaching and some indicators pertaining to them are the following:

  1. *Lesson clarity:* Logical, step-by-step order; clear and audible delivery free of distracting mannerisms
  2. *Instructional variety:* Variability in instructional materials, questioning, types of feedback, and teaching strategies
  3. *Task orientation:* Achievement (content) orientation as opposed to process orientation, maximum content coverage, and time devoted to instruction
  4. *Student engagement:* Limiting opportunities for distraction and getting students to work on, think through, and inquire about the content
  5. *Success rate:* An estimated 60 percent to 70 percent of time spent on tasks that afford moderate to high levels of success, especially during expository or didactic instruction

Learning Outcome 1.3

- Five helping behaviors for effective teaching and some indicators pertaining to them are the following:

  1. *Using student ideas and contributions:* Using students' responses to foster the goals of the lesson and getting students to elaborate on and extend learned content using their own ideas, experiences, and thought patterns
  2. *Structuring:* Providing advance organizers and cognitive or mental strategies at the beginning of a lesson

and creating activity structures with varied demands
3. *Questioning:* Using both content (direct) and process (indirect) questions to convey facts and to encourage inquiry and problem solving
4. *Probing:* Eliciting clarification, soliciting additional information, and redirecting when needed
5. *Teacher affect:* Exhibiting vigor, involvement, excitement, and interest during classroom presentations through vocal inflection, gesturing, eye contact, and animation, all of which communicate a warm and nurturing relationship to the learner

- Culturally responsive teaching is a pedagogy devoted to identifying and removing barriers that may interfere with access to learning for students with any diverse learning needs.

Learning Outcome 1.4

- Governed by a board of directors, the majority of whom are classroom teachers, the National Board for Professional Teaching Standards (NBPTS) offers five propositions essential to effective teaching.
- The Interstate New Teacher Assessment and Support Consortium (InTASC) standards are written as ten standards, which are further described in terms of teacher knowledge, dispositions, and performances to indicate what a beginning teacher should know and be able to do.

Learning Outcome 1.5

- Fuller (1969) postulated three stages of concerns through which teachers pass on the way to becoming a professional: concern for self, concern for the teaching task, and concern for their impact on learners.
- Guskey (1986) captured the teacher change cycle in four phases: professional development, change in classroom practice, change in student outcomes, and change in teacher beliefs and attitudes.

Key Terms

Common Core
Constructivist teaching strategies
Culturally responsive teaching
Engaged learning time
Helping behaviors
Instructional variety
InTASC standards
Key behaviors
Lesson clarity
Professional learning community (PLC)
Socioeconomic status (SES)
Student success rate
Teacher-mediated dialogue
Teacher task orientation
Teaching concerns
Wait time

Vignette Application Activity

At the beginning of Chapter 1 we read about a kindergarten through second grade vertical team engaged in professional development together. The implementation of their phonics curriculum was effective, but there was a gap in the development of basic comprehension strategies. Apply your learning from this chapter to respond to the following questions and prompts.

1. Revisit the key behaviors and helping behaviors. Identify one way each key behavior could be considered when planning for an effective comprehension think-aloud lesson. Then explain how each helping behavior could contribute to the effectiveness of a comprehension think-aloud lesson. (To make this task more focused, first identify a text and target comprehension strategy for the think-aloud lesson.)
2. How might teacher concerns and perspectives differ within the Apple Grove vertical team based on Fuller's concerns theory?
3. Identify the types of professional interaction the Apple Grove vertical team has utilized. What other professional interactions might support their efforts?

Discussion and Practice Questions

Questions marked with an asterisk are answered in Appendix B.

*1. In the following list, write the number 1 beside each indicator that likely would appear in an early definition of effective teaching based on either the characteristics of a good person or on the perceived psychological characteristics of a good teacher. Write the number 2 beside each indicator that likely would appear in the modern definition of effective teaching, based on the interaction patterns of teachers and students.

_____ Is always on time for work
_____ Is "intelligent"
_____ Stays after class to help students
_____ Works well with those in authority
_____ Has plenty of experience at his or her grade level
_____ Varies higher-level with lower-level questions
_____ Likes his or her job
_____ Uses attention-gaining devices to engage students in the learning task
_____ Is open to criticism
_____ Shows vitality when presenting
_____ Has worked with difficult students before
_____ Always allows students to experience moderate to high levels of success
_____ Matches the class content closely with the curriculum guide

2. In your opinion, which of the following helping behaviors on the right would be most helpful in implementing the key behaviors on the left? More than a single helping behavior may be used for a given key behavior. Compare your results with those of a classmate, and discuss the reasons for any differences.

1. _____ Lesson clarity	a. Student ideas
2. _____ Instructional variety	b. Structuring
3. _____ Task orientation	c. Questioning
4. _____ Engagement in the learning task	d. Probing
5. _____ Success rate	e. Enthusiasm

3. Identify two behaviors for effective teaching that you would emphasize if you were teaching fifth-grade mathematics. Identify two you would emphasize when teaching fifth-grade reading. Justify your choices using the summary research tables in this chapter.

4. Indicate your perceived strengths in exhibiting the five key and five helping behaviors using the following technique. First, notice the number assigned to each of the key behaviors:

1. lesson clarity
2. instructional variety
3. teacher task orientation
4. student engagement in the learning process
5. student success rate

Now, for each of the following ten choices, circle the number representing the key behavior in which you perceive yourself to have the greater strength:

1 versus 2	2 versus 4
1 versus 3	2 versus 5
1 versus 4	3 versus 4
1 versus 5	3 versus 5
2 versus 3	4 versus 5

Count how many times you circled a 1, how many times you circled a 2, and so on, and write the frequencies on the following lines:

_____ 1
_____ 2
_____ 3
_____ 4
_____ 5

Your perceived greatest strength is the key behavior that has the highest frequency. Your perceived weakest strength is the key behavior with the lowest frequency.

5. Repeat the paired comparison technique (see item 4) in the same manner for the five helping behaviors.

1. use of student ideas
2. structuring
3. questioning
4. probing
5. enthusiasm

1 versus 2	2 versus 4
1 versus 3	2 versus 5
1 versus 4	3 versus 4
1 versus 5	3 versus 5
2 versus 3	4 versus 5

_____ 1
_____ 2
_____ 3
_____ 4
_____ 5

Professional Practice

Field Experience and Practice Activities

1. Recall a particularly effective teacher you had during your high school years—and a less effective one. Try to form a mental image of each teacher. Now rate each teacher on the five key behaviors in the following list. Use 1 to indicate strength in that behavior, 2 to indicate average performance, and 3 to indicate weakness in that behavior. Are the behavioral profiles of the two teachers different? How?

Behavior	Teacher X (more effective)	Teacher Y (less effective)
Lesson clarity	_____	_____
Instructional variety	_____	_____
Task orientation	_____	_____
Engagement in the learning process	_____	_____
Success rate	_____	_____

2. Now rate the same two teachers across the five helping behaviors. Is the pattern the same? What differences in ratings, if any, do you find across key and helping behaviors for the same teacher? How would you account for any differences that occurred?

Digital Portfolio Activities

The following digital portfolio activities relate to InTASC Standard 9:

- *What is a digital portfolio?* A digital portfolio contains materials captured, organized, saved, and presented in a digital format. There are many advantages to being able to save and present important information relevant to your professional development in a digital format. First, a digital portfolio of your professional development can contain all the entries you might want to show a prospective employer in a fraction of the space that an accordion file, file box, or even binder would consume. Second, it can provide immediate access to exactly what you need at the time you need it to respond to a specific request for information without your having to clumsily rummage through reams of information. Third, it can place audio, video, graphics, and text at your fingertips in seconds. Accessibility, ease of duplication, minimal storage space, and portability make a digital portfolio the most advanced and efficient means of saving and displaying your professional accomplishments. Each chapter of this text will suggest what you should consider placing in your digital portfolio to present your professional skills and experiences and start you toward your first teaching job.
- *How do I start a digital portfolio?* You can start your digital portfolio using your personal computer and commonly available software, such as Microsoft PowerPoint or OneNote. However, using any of several specific software applications for a professional portfolio, identified on the Web or in Costantino, De Lorenzo, and Tirrell-Corbin (2008) and Adams-Bullock and Hawk (2010), can make the task even easier. Also, remember to frequently back up your digital portfolio by using one of the free cloud services such as Dropbox or Google Drive.

Now here are some suggestions for creating your first portfolio entries that relate to InTASC Standard 9:

1. This activity is designed to give you experience in creating a two-minute video in which you state your philosophy of teaching—often required for your first job interview. This will give you the opportunity to introduce yourself on your laptop, rather than having to speak unrehearsed at what might be a stressful moment in an interview. You will need an inexpensive web camera, which will come with appropriate software. You may want to write out your two-minute talk and use it as a guide to what you will say extemporaneously. Your objectives are to look natural and relaxed, to speak clearly, and to look directly into the camera. View your first trial and repeat the process as necessary until you give a confident picture of yourself. If you do not have the opportunity to use a web cam, simply save your statement in a folder on your computer labeled "Teaching Philosophy."
2. Complete the Teacher Concerns Checklist in Appendix A if you have not already done so. Set up and date a new spreadsheet file with the name "Teacher Concerns," and place it in a folder with your scores for concerns for self, concerns for task, and concerns for impact. As your professional experience grows, retake the Teacher Concerns Checklist (e.g. at the end of this course and occasionally thereafter) and place your new scores for these dimensions side by side with your previous scores. Over time, note how your scores shift from self-concerns to concerns for the teaching task and finally to concerns about your impact on students.

2 Understanding Your Students

Learning Outcomes

By the end of this chapter, you will learn and be able to:

- **2.1** Understand the importance of becoming a reflective teacher who can adapt instruction to accommodate individual learning needs.
- **2.2** Avoid common misconceptions about the role of intelligence.
- **2.3** Use instructional models and strategies to differentiate for the needs of students who are culturally, socially, and linguistically diverse.
- **2.4** Foster ways to promote family-school partnerships.
- **2.5** Recognize personal biases that can harm the teacher-learner relationship.