SEVENTH EDITION

INSTRUCTION
A Models Approach

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Instruction

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Teachers today are under pressure from all sides. Everyone, it seems, is an expert on teaching and on what to teach. Advice, mandates, and legislation speak with authority, telling teachers what to do in classrooms. In a sense, everyone *is* an expert on teaching. After all, didn't everyone go to school for many years and leave with the full knowledge of how school should have been? What has changed is that the cacophony of voices has become louder and more distracting to individual teachers.

Over the last several years, schools have changed. The student population is more diverse, the curriculum is more standardized, there is increased emphasis on teacher and school accountability, and the importance of prior knowledge and experience in learning is more apparent. In addition, budgets at the local and state level are tight and resources are thin. This seventh edition has responded to these changes by providing the newest research on student learning, access to linked video and Web resources for each model, and easier access to specific knowledge for teaching with instructional models through the identification of basic and advanced models and a glossary. Since the first edition of this text, many experienced teachers and teachers in training have found it to be useful. In fact, many teachers have told us that this book has become part of their permanent professional collections. We have reorganized the text to provide targeted support for novice and experienced teachers by organizing the models into basic and advanced sections. Readers can determine their own needs and chart their own progress as they master the specific models that are described in the text. Whenever possible, we have incorporated into this edition the excellent ideas and valuable corrections we have received from classroom teachers who use the models daily. These changes and those detailed in the New to This Edition list allow more opportunities to construct new concepts and principles of instruction.

New to This Edition

The seventh edition includes a number of noteworthy changes:

- Infusion of recent literature on student learning and teacher behaviors
- Implementation charts detailing teacher behaviors and student responses
- Linked videos* and Web resources with all presented instructional models
- A new elementary case study that demonstrates the use of instructional models in a mathematics teaching unit
- Detailed explanation of the connections between instructional strategies and instructional models
- Correlations to the Common Core State Standards
- Addition of the 5E Learning Cycle approach to Chapter Twelve's coverage of the problem-based inquiry model
- Updated references throughout the text and a comprehensive list of references at the end of the text representing the most relevant new literature and research
- A major revision of the Chapter Two information on planning for instruction
- A stronger focus on moving from standards to classroom objectives, and directions for how to accomplish this
- Invigorate learning with the Enhanced Pearson eText

- The Enhanced Pearson eText provides a rich, interactive learning environment designed to improve student mastery of content with embedded videos. The Enhanced Pearson eText is also available without a print version of the textbook.
- Instructors, visit pearsonhighered.com/etextbooks to register for your digital examination copy.

*Video clips are accessible in the Enhanced Pearson eText only, and not other third-party eTexts such as CourseSmart and Kindle.

Instruction

There is a sense in which everyone is a teacher. The root meaning of the word *teach* is "to show, to tell, to point out." Everyone teaches others, and so everyone is a teacher, at least in the amateur sense. This doesn't mean that everyone can be an *effective* teacher, however. If we look at the word *teach* in its professional sense, in relation to the word *instruction,* a more complex picture emerges. The meaning of the word *instruct* derives from "to build" or "to structure." Professional teachers not only *teach* in the usual sense of the word, they also instruct. They *structure* classroom environments and *build* experiences for a diverse group of students. Whereas parents, doctors, and others usually teach spontaneously by telling, pointing out, or showing, professional educators must carefully design and plan for their teaching. In fact, in our opinion, you are not teaching unless your instruction is helping students learn. There is a natural analogy between instruction and building based on the process of structuring environments. The teacher, as an instructor, is comparable to the builder in three ways:

1. *Planning for a specific audience.* Both builders and teachers must first figure out the needs of their clients or students. The house required for a single person with a large collection of automobiles should be different from that of a family of six with four dogs, three cats, two hamsters, and a rabbit. Similarly, the instructional design for a freshman conceptual physics class will be different from the design of the AP physics class. The background knowledge of the students and the challenge of the content require different approaches. Both the builder and the teacher must consider their clients, and they need to know how to formulate a plan that will be sound, original, and functional.

A good design for teaching grows out of a clear understanding of the needs of learners and the goals of education. Each design that a professional teacher creates is unique because different groups of learners have individual needs, and different types of learning require specific instructional approaches.

2. *Formulating objectives and evaluation procedures.* Both the builder and the teacher specify the intended outcome of their work as clearly as possible. No builder would think of starting a construction project without having a clear picture of how the final product should look. To get halfway through the project only to realize that what was emerging was not what the client wanted or needed would be professionally embarrassing and costly. The teacher who works without a careful design also leaves too much to chance, not providing appropriate supports that help students learn. As a professional, the teacher must plan how to achieve specific, intended learning outcomes. Otherwise, valuable instructional time can go to waste, and students will not have the appropriate experiences for success on the assessments for which they are accountable.

An essential part of setting objectives is determining effective assessment procedures to make certain that what was intended is taking place. Like the builder who must constantly check on the construction, the teacher must determine whether students are reaching the intended results. It would be foolish to wait until a building

has been completed to check on the quality of the work and to determine whether all is proceeding as planned. Likewise, a teacher must use effective formative and summative assessment procedures throughout the teaching process.

Evaluation is continual, forming the basis of all decisions at every step: determining needs, formulating objectives, designing aligned assessments and instructional methods, and selecting materials. Evaluation is the process of continually asking questions: Where are we going? How do we get there? How far along are we? The teacher must continually collect information from students to determine whether the instruction is appropriate and effective. Thus, evaluation showing the intermediate and ultimate effects of instruction (formative and summative assessment) must be used to reform the process of teaching. Continual evaluation makes this possible.

3. *Selecting materials and procedures.* The builder has available a variety of materials and techniques from which to choose and must decide which combination will produce the structure most nearly like the one intended. Each project must be analyzed to determine the appropriate combinations; for instance, not every house is built only of wood or brick. Likewise, each student is an individual with his or her own needs, strengths, and interests. Moreover, each class is unique in terms of the dynamics of a particular group. Therefore, the teacher needs to have at hand a variety of approaches and techniques to accomplish specific instructional objectives and to manage problems as they arise. Unfortunately, there are classrooms in which there is no instructional variety, leading to monotony and boredom. The teacher who uses the same instructional technique is like the builder who will build only one type of house. The builder may become expert at building that house, but the house will not meet the needs of a wide variety of clients. A repertoire of instructional and management strategies is necessary to meet the varied needs of learners.

A Models Approach

We believe that the process of instruction unites all teachers as professional educators. Our intended audience includes teachers of any subject who teach or plan to teach learners of any age. Teaching is challenging and complex. Models of instruction can help teachers deal with the demanding environment of the classroom.

This text is not a rule or recipe book but an invitation to consider the opportunities for professional educators as instructional decisions are made. Progress toward mastery teaching is a continuous process of learning and adapting, modifying, and changing. With each group of students, teachers must make different instructional decisions, solve different problems, and meet different needs. We offer information that will help teachers make more appropriate and effective choices as they plan and implement instruction.

We have divided this text into four parts. Part One, Planning for Instruction, describes the process of integrating standards into written objectives, assessment, and instruction. A teacher must first decide what is to be learned in the classroom before considering how to present the material through the instruction. A thorough discussion of moving from standards to focused objectives is presented in this section. Once objectives are identified and aligned, a variety of instructional models can be considered.

Part Two, Basic Instructional Models, presents a selected group of what we have termed basic instructional models along with illustrations of how they can be used in the design process. These basic instructional models are aligned with the types of objectives and assessments that are frequently used in classrooms and are supported by a preponderance of evidence as to their effectiveness. Direct instruction, concept attainment, concept development, cause and effect, and vocabulary acquisition meet a variety of content and skill needs in all classrooms and provide basic instructional skills to teachers on which they can build and integrate a number of instructional patterns.

Part Three, Teaching with Advanced Instructional Models, extends the models approach. These models (the integrative model, Socratic seminar, cooperative learning, inquiry, and synectics) provide a structure for student learning and help teachers meet many content and skill goals, but they also require a more sophisticated understanding of classroom processes. When implemented, these models make a larger ripple in the classroom—there are more ramifications and possible difficulties involved, so their use requires more practice and attention.

Part Four, Putting It All Together, contains four chapters. Three are case studies that describe how teachers match objectives, assessments, and instruction in the design process and use a variety of models in service of an instructional unit. Part Four concludes with a chapter that suggests ways of creating a positive environment for learning in the classroom.

The content of this text reflects a process of learning by doing. Thus, ample opportunity must be provided for practice and feedback, ideally including peers reviewing videos of practice sequences. No one can learn these models simply from reading about them or memorizing the steps, just as no one can learn to drive a car simply by reading an owner's manual.

We have each had the opportunity to interact with both preservice teachers and experienced teachers who are discovering the possibilities of growing professionally through the use of instructional models. We have seen how the models approach provides tools for professional decisions about instruction that can be shared among professional instructors through a common body of knowledge.

Retained Features

The following features of previous editions are retained:

- A comprehensive approach to organizing content and skills and developing aligned instruction in planning
- Specific instruction in developing classroom objectives from state standards
- In-depth discussion of the steps and benefits of more than 10 different instructional models
- Attention to how the models can be used to meet individual needs
- Suggestions as to how models can be used to assess student learning
- Associated instructional strategies that can be used within and across different instructional models

Acknowledgments

Planning for Instruction

An old farmer was asked how his family happened to settle in a remote section of Arkansas. He replied, "Well, we were heading for California when Pap took a wrong turn at the Mississippi River."

Pity these travelers, crossing a continent with no map and only a vague notion of their destination. Likewise, many students and teachers traveling across unfamiliar intellectual terrain experience wrong turns in the classroom. Too often, students and teachers work without a map in the form of specific plans and without clearly defined objectives for their travels. At the end of a poorly planned lesson or unit, students are often let down, not having the support to reach the teacher's intended destination. In the classroom, careful planning is essential if students are to enjoy a successful journey toward knowledge and understanding.

The planning process we describe in the following chapters will guide both teacher and student behavior in ways that will provide students the opportunity to succeed in the classroom. Aligning objectives, assessments, and instruction gives students the chance to process new information and skills and relate them to prior knowledge. Aligned instruction also allows teachers to plan a variety of instructional and assessment opportunities. Although there is no exact formula or recipe for good instruction, it is known that good instruction depends on good planning.

Based on what is known about student learning, we recommend the following approach to instructional planning:

1. Study state and national standards.
2. Collect and reflect on individual and collective needs of students.
3. Define and state objectives in the form of what you want students to understand, know, and be able to do.
4. Construct assessments that allow students to demonstrate that they have reached the stated objectives and will be able to perform important transfer tasks at the end of the unit.
5. Create lessons and units that support students as they learn the necessary knowledge and skills to be successful on the assessments.
6. Use a variety of instructional models in lessons to meet a variety of learner needs.

These steps are discussed thoroughly in the next two chapters. We examine broad educational goals; the organization of instruction; and how to align objectives, assessment, and instruction in planning. Planning for instruction is a continual process, and the steps of planning overlap—based on the experience and background knowledge of the teacher and the needs and prior learning of the student. Some procedures for

instructional design that can help in this process are covered in Part One. It is each reader's responsibility to determine the ways in which he or she will implement these procedures. What is not optional is the incorporation of a serious planning process into every teacher's approach to instruction.

1 Standards and Content in Schools

📖 *Chapter Objectives*

You Will Know

- The importance of planning
- How learning happens
- Student characteristics that affect learning
- The relationship between standards and academic content
- How to analyze content
- How to order content
- The elements of instructional planning

You Will Understand That

- Standards are the basis of instructional decisions that result in student learning
- Planning increases the likelihood of student learning

You Will Be Able To

- Explain the role of standards in determining school content
- Describe what we know about how learners learn
- Discuss the relationship between unit and lesson planning and the need for instructional alignment

Teaching is challenging and difficult. Learners come into classrooms with unique knowledge and experiences, interests, and learning preferences, making each classroom diverse and increasing the difficulties and complexities of determining appropriate decisions in planning for student learning. All students deserve the opportunity to learn and be successful in school. This chapter will provide information that will serve as the foundation for designing good instruction in your classroom.

> ▶ Josh Anderson, the 2011 Chief State School Officers Teacher of the Year, shares his views regarding the challenges of teaching, his reasons for being a teacher, and his vision for schools. This is an inspiring video, not to be missed.

The Importance of Planning

We begin with the story of Anna, a girl in her sophomore year of high school. This young woman's parents were concerned about her academic achievement. Life at home was marked by dinnertime discussions of wide-ranging topics, though Anna did not participate much in those conversations. She had little interest in current

events or anything that was even vaguely academic. This left Anna feeling like an outsider in her own family. She made up for this by having more friends than she could count, a fact that kept her in school for the sake of close personal associations. This is not uncommon. "Liking for school is aligned with social and emotional factors such as personality and social factors such as the number of friends the individual student has at the specific location" (Hattie & Yates, 2014, p. 4). School can be important to students beyond academics. Anna was strong in what Gardner termed "interpersonal intelligence" (Gardner, 2006). But where does this quality fit in the curriculum of school? How could a teacher capitalize on this capacity in teaching Anna anything? This is a question worth thinking about.

Seeking the help of the high school guidance counselor, Anna's parents visited the school. They discussed Anna's constant need to use her smart phone and how much time she spent fixing her hair. They wondered how these skills would help her be successful. The counselor's response came as a surprise to the parents. For one thing, the counselor told them they were probably underestimating the skills that Anna possessed. She could be a beautician if she wished, but, if that were her choice, she would probably own the shop where she worked and would run a thriving business!

A few years later, after graduating from college with no particular aim in sight, Anna applied for a job in a large mortgage company. This job, in mortgage origination—a type of job Anna had never heard of—required talking to strangers about how they could save money on their house payments by refinancing at a lower interest rate. It also required a great deal of study and test taking to obtain licensure, but neither problem proved the slightest barrier. Anna worked hard at her job, studied, and passed every test. A few years later, she decided that she could do this mortgage origination thing on her own rather than work for someone else. The process was simple in her mind: All she had to do was identify potential customers through public records, fill out some paperwork, and make "new friends" with the real promise of saving them a lot of money. Two years later, she ran her own mortgage brokerage business. She was qualified at the highest levels and suddenly making a lot of money doing something she loved to do.

So how did a mediocre student become such a great success? Here is one possibility we might want to pay attention to: Instruction in school often tends to focus narrowly on knowledge transmission—on teaching content without apparent purpose. Thus, too often the reason to learn is opaque to the learner, resulting in isolated knowledge and superficial understanding and very little transfer outside of school—the true purpose of schooling. When the reason to learn became clear to Anna, her study and instruction resulted in contextualized knowledge and deeper understanding. When Anna and countless others like her cannot see the point of learning what teachers are attempting to teach, learning is *not* visible but exists only in the abstract. Students are unlikely to engage in the work required of them if they see no reason to learn, and they often have little confidence they *can* learn even if they try. By contrast, when students and their teachers visualize and discuss the point of what they are asked to learn and they are engaged in thinking together about the possible effects or consequences of what occurs in school, the outcomes are likely to be much more positive (Hattie, 2012). When Anna finally got to the time and place in her life in which she could see the point of what she was required to learn, her learning problems disappeared. This may not be the answer for all students, but for many of our disengaged and struggling students, showing them the reasons for learning will be helpful. And for many others, there are several concrete and empirically supported strategies that will result in greater school success (Hattie & Yates, 2014).

It is very important to align instruction and assessment with standards, rather than the other way around, as Dr. James Popham describes in this video shot in the classroom of Janine Bright, a third grade teacher.

The planning process we describe will guide both teacher and student behavior in ways that provide students the opportunity to succeed in the classroom. When teachers and students collaborate continuously to align objectives, assessments, and instruction, students have many chances to process new information and skills and relate them to prior knowledge and future goals. Aligned instruction also allows teachers to plan a variety of instructional and assessment opportunities. Although there is no exact formula or recipe for good instruction, we do know that good instruction depends on good planning to ensure that learning is relevant and visible to students. It is unlikely that students will be successful in school without visible learning—understanding why they are learning, how it relates to what they know, and how it may be useful.

To ground our discussion in the larger picture of education in our society, this introductory chapter examines broad educational goals; the need for quality education for students from all income levels; the organization of instruction; and the alignment of objectives, assessment, and instruction in planning. Planning for instruction is a continual process, and the steps of planning overlap. It is each reader's responsibility to determine the ways in which he or she will implement these procedures. What is not optional is the incorporation of a serious planning process related to instruction aimed at ensuring students' learning. Keep in mind that you are likely to have many students like Anna in your classes. You will also have students who come to school with large gaps in knowledge, physical ailments, and hunger. Many will come from homes where English is not spoken and money is tight. All students' intelligences, skills, interests, and needs will determine their learning. The key to success is to keep students engaged in the process of learning and committed to its outcome; this cannot be done without careful, intentional, and skillful planning.

How Learning Happens

Much is known about how people learn and how the brain works to organize experiences. All teachers must understand these processes in order to design effective instruction. The following points summarize a few of the principles of how people learn.

1. *Learning changes the structure of intelligence.* Academic achievement at any level of schooling by learners at any level of verbal and quantitative ability will have the effect of improving thinking. But abilities of learners are not limited to the verbal and quantitative. Neuroscientists have yet to untangle all the intricacies of how we learn and what teachers can do to enhance classroom learning. We do know, however, that we are all capable of learning and that when we learn, our brains change. Because the brain's structure changes with new knowledge, we should be able to enhance academic outcomes for all students by providing them with opportunities for learning (Wilson & Conyers, 2013). Many of our students are living difficult lives. Tough (2012) has identified several qualities that make a difference in school *and* in life. These include persistence, self-control, curiosity, conscientiousness, grit, and self-confidence. Anna has demonstrated these character traits throughout her training and career, as have many successful people. Interestingly, it is believed that these non-cognitive skills can be taught explicitly.

2. *The brains of learners are continually being organized and reorganized.* Learning improves thinking so as to make future learning all the easier. How does this happen? Primarily, it is because changes occur in patterns of cognition as new understandings are woven into the fabric of prior knowledge. David Ausubel said this most clearly and directly (Ausubel, Novak, & Hanesian, 1968, p. 168): "If we had to reduce all of educational psychology to just one principle, we would say this: The most important single factor influencing new learning is what the learner already knows. Ascertain this and teach him accordingly." Teachers need to be skilled in helping students gain

access to new information that is logically linked to prior knowledge (Donovan & Bransford, 2005). Helping students make this connection is one of the most difficult professional tasks of teachers, but with appropriate planning and instructional options, knowledge gaps can be diminished.

3. *The typical pattern of brain development is one of starts and delays.* The synapses of the brain work at processing information from a variety of experiences, and synaptic connections develop at diverse rates. A student may have very rich synaptic connections for literature and more impoverished connections for mathematics. Teaching must reflect that there is not one growth rate for all parts of students' brains and abilities. One facet will inevitably be more developed than another. The result is that a child may be good at one part of the curriculum while struggling with a different discipline, at least for a time, until the weaker "muscles" of learning can be exercised to become stronger. Thus, teachers may need to scaffold learning more for some content and learners than for others.

4. *Memory has different functions.* Sensory memory is temporary and sends information to working memory. Sensory memory may be fleeting and unconscious; working memory requires constant attention. Learners process information in working memory. If that processing includes repetition, details, application, and elaboration, the information is more likely to move into permanent memory. Teachers must keep in mind that students need repetition of skills and information and that knowledge and skills must be detailed and related to other, more familiar skills and information (Willingham, 2009).

5. *Learning must be transferred beyond the narrow contexts of initial learning if it is to be useful.* The purpose of school is to help learners use the knowledge that they acquire in the real world (Bransford, Brown, & Cocking, 2000). Learners often perform well in the context of instruction but fail to evidence this knowledge in practice outside of a particular classroom or in the real world. Other learners may come to understand what they are learning only when they see it in practice. To guard against such disparities, teaching must be explicit, skills must be practiced, the use of the skills must be determined, and understandings must be applied. Most importantly, students must see what it is to be skilled and must be conversant in new knowledge across multiple contexts. Transfer of new learning must occur at a deep level of knowledge—beyond recall. Teachers need to help students see the way new knowledge and skills can be used to solve problems similar to those practiced in the instructional context. What finds no application is soon forgotten by learners (Marzano, 2003). This knowledge of "how to do" will be revisited in Chapter Two. It is the linchpin of knowledge. The importance of applying knowledge—particularly procedural knowledge—cannot be overstated.

6. *Conceptual knowledge is based on facts and helps learners transfer information and skills.* To become a competent learner in any discipline, students must have a deep foundation of information, which is then organized into concepts and generalizations. They must understand the conceptual framework in which facts and examples fit and be able to organize this information so that it can be retrieved when applicable (Willingham, 2009). Individual facts will likely be lost, but generalizations will have more staying power. At least a basic threshold of knowledge must be achieved to support transfer. It takes time and practice to understand complex subject matter, and a satisfactory level of understanding basic elements is essential for successful transfer of information and skills (Bransford et al., 2000).

7. *Students who monitor their own learning are more successful in academic environments.* Learning is enhanced by *metacognition*—a big word describing the act of thinking about thinking and about oneself as information processor and learner. Metacognitive strategies help students become responsible for their own learning and help them learn beyond recall. Metacognitive strategies (using mnemonics,

summarizing, etc.) are learned and can be explicitly taught in classrooms. To be meta-cognitive, students need to know the goals toward which they are working, and they must receive feedback on how they are progressing toward these goals. This feedback most often stems from diagnostic evaluation and formative evaluation. Formative evaluation should be woven into the process of teaching. Formative assessments are designed to monitor instruction so that students and the teacher receive feedback on how the lesson is going and on whether students are moving toward the lesson's objectives. These assessments help students identify their strengths and weaknesses and target areas that need work, and they help teachers recognize where students are struggling and address problems immediately. With formative information, students can become aware of which behaviors lead to success and which are not as effective for them.

In this video, a distinction is made between instructional and learning strategies. Metacognitive strategies are classified as learning strategies, and specific examples are provided.

8. *Learning is enhanced by challenge and inhibited by threat.* Although challenge is always accompanied by risk to one's self-esteem or success, the learner will thrive in what Caine and Caine (1994) call "relaxed alertness." Students should perceive no risk in what they are asked to learn. Errors are natural in the early stages of learning, and learners need to feel comfortable about making mistakes. Hattie summarizes this idea cogently:

> Expert teachers create classroom climates that welcome admission of errors; they achieve this by developing a climate of trust between teacher and student, and between student and student. The climate is one in which "learning is cool" and worth engaging in, and everyone—teacher and students—is involved in the process of learning. It is a climate in which it is okay to acknowledge that the process of learning is rarely linear, requires commitment and investment of effort, and has many ups and downs in knowing, not knowing, and in building confidence that we can know. It is a climate in which error is welcomed, in which student questioning is high, in which engagement is the norm, and in which students can gain reputations as effective learners. (Hattie, 2012, p. 26)

9. *Each brain is unique.* Though virtually all children are born with the capacity to learn, the experiences they encounter actually shape and alter their brains as learning occurs (Bransford et al., 2000). "The single most powerful statement to come out of brain research in the last twenty-five years is this: We are as different from one another on the inside of our heads as we appear to be from one another on the outside of our heads" (Fulghum, 1989, p. 39). Teachers need to be completely open to infinite possibilities in learners; that is to say, they should expect that there will be great diversity in understandings of what they teach. There is reason to doubt the notion that everyone will have the same answer or that there is only one answer worth having. Teaching and learning activities should be varied, and learners should have multiple opportunities to learn whatever they are taught. The models in Part Two will provide many teaching options to accomplish these goals.

Taken together, these principles reaffirm that there is no one best way to teach, but there are principles of learning that good teaching must adhere to. The most important thing we know about learning is that teachers must use professional knowledge and adapt instruction to the needs of learners.

Student Characteristics That Affect Learning

In every classroom there are children with a variety of needs, including students with physical, mental, and emotional challenges; English language learners; students living in poverty; and gifted students. Some of these needs may shift and change daily. Teachers must respond to each of these students in a respectful and knowledgeable way, one that provides every child the opportunity for success. Our aim in this text is

All classroom teachers need to know the required components of an IEP. This video provides a brief overview of what must be included in an individual education plan.

to provide an assortment of general instructional models for classroom use, each of which can help to accommodate learners with special characteristics.

Because classrooms include students with a variety of special challenges, you may work with a collaborative teacher in your classroom. Each identified special education student will have an individual education plan (IEP) that will help inform classroom decisions.

In addition, we are a diverse nation, and the population of English language learners (ELLs) is growing—in rural, suburban, and urban areas. Although English is the predominant language in America, Spanish is spoken by over 12 percent of the population (Gonzalez-Barrera & Hugo, 2013). This percentage varies greatly depending on the area of the country. English language learners can come from a wide range of ethnic backgrounds and many different background experiences. In all cases, however, schools and classroom teachers are responsible for teaching academic content and language skills alike.

This video offers an introduction to the philosophy of Nel Noddings, who has written a great deal about the ethics of care both in and outside of school.
www.youtube.com/
watch?v=sVIZ_mt9l3g

All instruction is improved when there are respectful and caring relationships between students and teachers; when goals and directions are clear; when a variety of instructional strategies and models are used; and when teachers use students' prior experiences, culture, and, in the case of ELL students, language as a basis for presenting new knowledge and skills. Teachers of English language learners need to speak clearly, give attention to key vocabulary, scaffold through chunking and unpacking dense text, and be aware of the students' cultural heritage.

Poverty can also affect instruction. Poor children often have fewer positive academic experiences and thus arrive at school with a diminished set of references they can link with new knowledge. The more we learn, the greater our capacity is to learn, so it is important to enhance the experiences of children from poverty. Poor neighborhoods are often chaotic and unsafe, so children arrive at school fearful, which can make learning more difficult. Poor children may also lack sufficient food and health care, increasing the risk of school difficulties. A cooperative and safe classroom community in which good instruction is common can help children who are stressed by a lack of basic resources.

In addition, boys and girls of the same age have different patterns of development. In a sixth grade classroom, most males still look like little boys, while about half of the females look like young women. In their early teens, girls are usually taller, stronger, and more verbal than boys. As teachers set goals for teaching and learning, they need to be conscious of the many ways in which children differ from one another.

Standards and Academic Content

Standards have become a large part of the educational experience in the United States. All teachers must learn to use the standards to design instruction that meets the needs of diverse learners. Most states have accepted the Common Core State Standards (CCSS) and have developed (or are developing) aligned curriculum frameworks. New assessments that are aligned with the CCSS are in the process of being created as we write this text. It is important that you be familiar with either your

WEB RESOURCE

Common Core

Explore the Common Core State Initiative website at corestandards.org and learn more about the Common Core initiative and the standards that are being used in several states.

state's standards or the CCSS. As you read through those standards, ask yourself the following questions:

1. What would the behavior of a student who had accomplished this standard look like?
2. What are the specific activities and behaviors one might engage in to practice the standard?
3. What specific information and skills does each standard imply?
4. What are the skills and knowledge that should precede this standard?
5. What are the skills and knowledge that will come after students meet this standard?

Standards provide the basis for the instructional decisions you will make in your classroom. To begin unpacking standards for your own use, look carefully at the verbs that describe the standards of learning for each content area you are teaching. You will probably not see many verbs like *remember* or *recall*. On the contrary, you are very likely to see verbs such as *clarify, explain, use knowledge, question, describe, distinguish, evaluate,* and *compare and contrast.* The tests, especially the new assessments aligned with the CCSS, may include questions such as these: "What would happen if . . . ?" "What factors were most important?" "Which statement is best supported by the information given?"

To ensure students are not surprised by being asked to utilize this thinking, the instruction they receive needs to emphasize the same kind of reasoning. If your state's department of education provides sample tests or released test items, examine them carefully to see exactly what a student might need to know or be able to do in order to perform well on the test items. Think of these test items as discrete tasks, each of which can be practiced and mastered. Compare these items with the curriculum guides provided by your school district. With sufficient practice and eventual mastery of the knowledge required by the test, students can perform well on the tests precisely because they do understand what is being asked of them. That will require they be taught in the same way they are to be tested. This is not an appeal to teach to the tests. It is an appeal to teach what you know will be tested. This is referred to as "instructional design with the end in mind." Of course, the tests are only one end. Your district and school will have additional goals that will guide your planning and instruction.

Analyzing Content

The connections between standards and instructional design may not always be apparent, but classroom instruction must be aligned with the state's standards, district curriculum, and associated high-stakes tests in order to provide students the opportunity to be successful. This does not imply that instructional decisions should be geared toward drilling students on anticipated content of the test. Each of the instructional models in this text is designed to help students build connections between what they know and what they are learning. Think of understandings as a complex network of concepts that instruction continuously builds on and reinforces. For example, young children can develop an understanding of city, state, and national governments and the responsibilities of community members by looking at the parallels in how their classroom and their school are organized; but they need the opportunity to reflect on their own role, their classroom, and their school before they can make the connections regarding these concepts. Always start with the known and most obvious, and then move incrementally to the new.

Willingham (2009) makes the case that factual knowledge precedes skill (also known as *procedural knowledge*) and is required for reading and memory has to