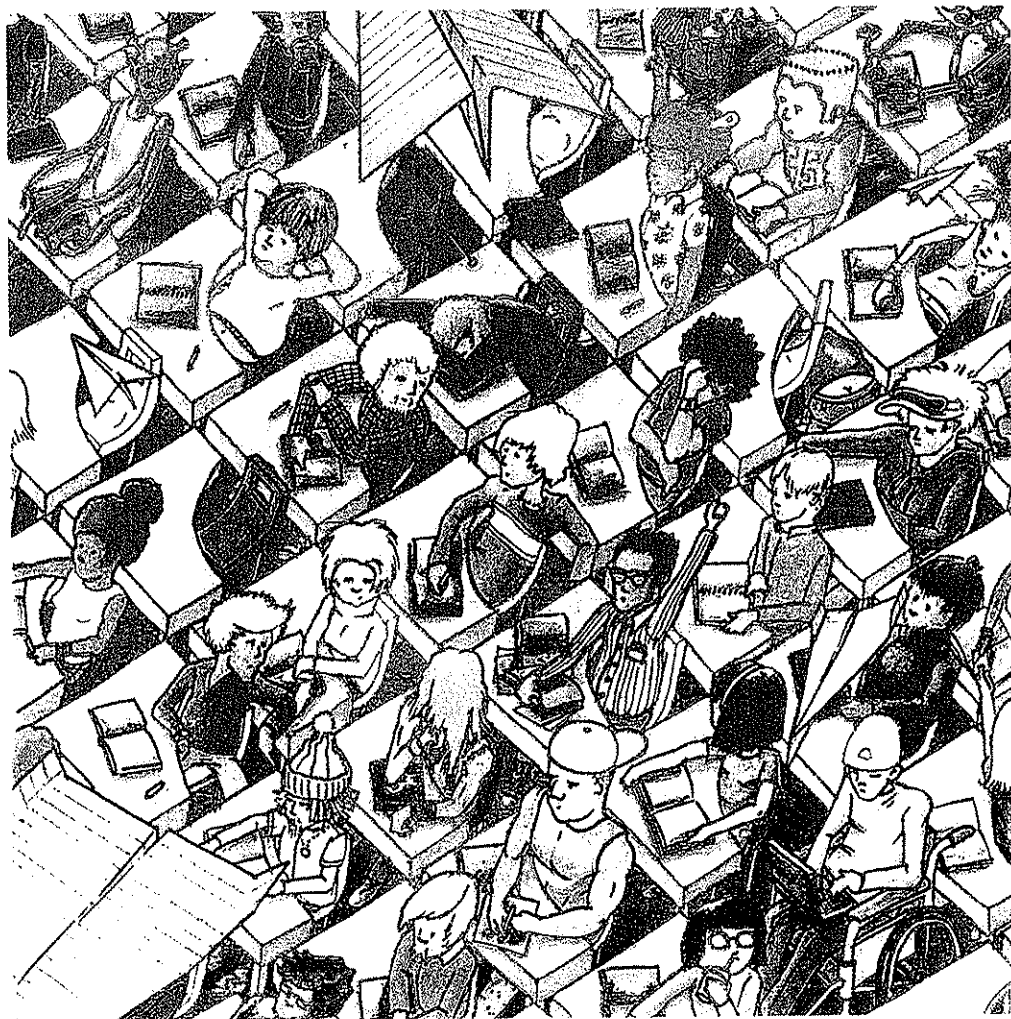# TEACHING CONTENT TO ALL

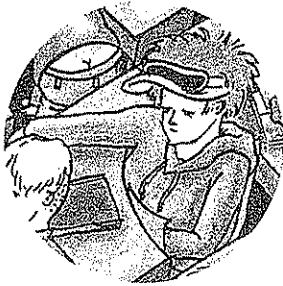## TO ALL

Evidence-Based Inclusive Practices in Middle and Secondary Schools

B. Keith Lenz • Donald D. Deshler

with Brenda R. Kissam

3

SMARTER Planning for Academic Diversity

B. Keith Lenz
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Critical Self-Test Questions

- How do teachers decide what to teach?
- What does it mean to select critical outcomes?
- Why is selecting critical outcomes important in academically diverse classrooms?
- How can you go about selecting critical outcomes?
- What is SMARTER planning?
- How will SMARTER planning help teachers address the learning needs of all students?

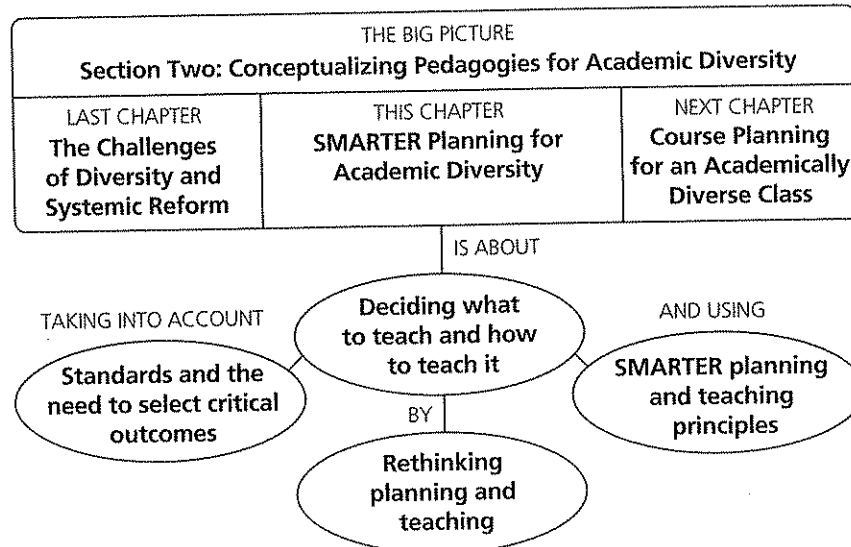*Planning shapes the broad outlines of what is possible or likely to occur while teaching.*

—C. M. Clark and R. J. Yinger, *Teacher Planning* (1987), p. 95

One of the major planning dilemmas you will face as a teacher is deciding what to teach. State and local standards, in addition to school system guidelines, curricula, and textbooks, are all sources that are used. The troubling reality is that there is much more potentially important information to teach than you can feasibly target in a meaningful way. The question of depth versus breadth frames the planning conundrum. As the information base of any course of study grows, the time allotted to a course in secondary schools usually remains the same. Educational reformers plead the case for "less is more" (Sizer, 1996). This means targeting fewer, but the most essential and relevant, concepts and processes for in-depth study, rather than choosing *more*, which means introducing students to more material, which can be processed only superficially.

Research on teacher planning for inclusive classrooms tells us that a reality of teacher planning is that secondary teachers have limited planning time, considering the instructional challenges they face (Joint Committee on Teacher Planning for Students with Disabilities, 1995). Planning time in schools is often taken up with administrative duties, appointments, and unexpected demands. In much of their planning, teachers target activities to engage and motivate students, rather than thinking in terms of larger outcomes, that is, what students need to know and understand. This is why curriculum standards are important: They help us maintain a focus on what students should be learning.

As you begin to think about teaching a course, you might assume that your role in developing curriculum is minimal, that these decisions have already been defined for you in state or local curriculum guidelines. However, teachers can and do make decisions every day that have a major

FIGURE 3.1
Graphic Organizer

THE BIG PICTURE
Section Two: Conceptualizing Pedagogies for Academic Diversity

LAST CHAPTER	THIS CHAPTER	NEXT CHAPTER
The Challenges of Diversity and Systemic Reform	SMARTER Planning for Academic Diversity	Course Planning for an Academically Diverse Class

IS ABOUT

TAKING INTO ACCOUNT

Deciding what to teach and how to teach it

AND USING

Standards and the need to select critical outcomes

SMARTER planning and teaching principles

BY

Rethinking planning and teaching

impact on the curriculum their students are taught and learn. Therefore, unless you understand the curriculum process and your role in it, you may not succeed in effectively teaching all students.

FOUNDATIONS AND PRINCIPLES

Researchers have suggested that teacher planning influences both content coverage and students' opportunity to learn (Clark & Yinger, 1987). Teachers translate and adapt the curriculum into instructional activities for many types of students. One of the first planning decisions teachers make that has an impact on *all* student learning is *selecting the critical outcomes*—identifying what it is they want students to learn in their classes. A critical outcome

▪ Scenario

Mary Cochran and the rest of the social studies faculty from Franklin High School arrived on Friday morning for their weekly department meeting. It was the last month of the school year, and they had agreed to see whether they could get a handle on how to tie the state standards into classroom practice. Expectations about being more responsive to student learning needs were finally reaching the high school. The teachers were concerned about how to meet these expectations and about how their courses would be affected by new district initiatives to increase reading and writing achievement test scores. Some teachers had trouble every year just covering the content they believed they were supposed to teach. American history teachers rarely taught much further than World War II by the end of the school year. All the teachers worried that they would cover even less content if they were required to provide remedial instruction for some students.

for a biology course might be that students understand and be able to describe how groups of organisms are organized. A critical outcome for a U.S. history course might be identifying significant technological advances and describing their impact on American society and the economy.

Many students have difficulty understanding how particular facts are related to broader ideas or concepts and often lack the background knowledge necessary to connect pieces of information. When students have trouble making such connections—and many students do face this problem, even high-achieving students—it is essential that teachers be prepared to support student learning by being very clear about the critical outcomes, or "big ideas," in a course.

Selecting Critical Outcomes

Many teachers appear to think of the process of selecting critical learning outcomes as selecting critical *content*. But the two processes are not the same (Zahorik, 1975). The problem with planning that is based initially on content rather than learning outcomes is that instruction tends to center on discrete topics rather than the broader concepts and ideas that connect topics and give them meaning (Goodlad, 1984). For example, in the study of U.S. history, learning when the cotton gin was invented and by whom are not particularly important pieces of knowledge in and of themselves. What is important is the impact of this invention on the cotton industry, the institution of slavery, and the economy of the South (see, for example, Foner & Garraty, 1991). If the invention of the cotton gin is not discussed within this context and if student learning about this invention is not evaluated on the basis of this connection, learners will not understand the significance of the invention nor, in most cases, are they likely to find it very interesting or memorable.

Too Much Information, Too Little Learning

Newmann and Associates (1996) argue that for many students, learning isolated bits of information is difficult and does not engage their interest or attention. They suggest that a better approach is to limit the amount of fact-based content and pursue fewer topics in depth. Similarly, Fensham (1992) has reported that in science classrooms, concepts are often taught in a manner similar to the teaching of facts, disconnected from a broader "appreciation of how these concepts originated in the data of science or of their usefulness in applications in the real world" (p. 794). Racing through factual content provides no opportunity for students to think about what they are being asked to learn, nor does it allow students to master the skills and strategies essential to understanding and retaining content information (Good & Brophy, 1994; Parker, 1991). A curriculum structure that has "greater depth and less superficial coverage" helps students better understand and retain new knowledge (Glatthorn & Jailall, 2000, p. 108). In addition, if curriculum goals are to teach thinking and decision-making skills, then, as Parker (1991) observes, these objectives are best achieved by "thoughtful learning on a limited number of topics" (p. 353). Parker argued further that the explicit teaching of learning strategies and thinking skills must be a part of such in-depth study so that students will have the cognitive skills needed to "construct and operate on knowledge" (p. 353).

Focus and Reflect

Try your hand at translating one or more state standards in your content area into course goals and related instructional activities. Do your course goals encompass a focus or overarching idea that ties discrete content topics together? (State standards are accessible from Web sites provided at the end of this chapter.)

KNOWING AND DOING

Rethinking Planning and Teaching

The way curriculum is currently conceptualized and implemented is a big obstacle to developing an inclusive learning environment in the secondary setting. Too often the goal has been to promote content coverage rather than learning. Wiggins and McTighe (1998) described this approach as "teaching by mentioning it," or covering topics and ideas by drawing attention to them without developing them with students.

The first step to reaching more students is to dramatically change the way we think about curriculum and what students should know and do as a result of curriculum experiences. Wiggins and McTighe have argued for an approach to curriculum planning called "backward design," whereby teachers rethink their approach to curriculum planning and teaching by deciding what to teach based on sorting information into three levels: "enduring understanding," "important to know and do," and "worth being familiar with" (Wiggins & McTighe, 1998, pp. 9–10). Other educators over the last three decades have made similar suggestions (e.g., Beane, 1995; Blythe & Associates, 1998; Bruner, 1960; Caine & Caine, 1997; Perkins, 1992), and these suggestions are slowly beginning to shape how high schools deliver the core curriculum (see Erikson, 1998).

However, important questions must be answered as we think about implementing this approach. One question is, what happens when secondary teachers move to a more conceptual approach to curriculum design as a framework for making decisions about what to require of all students in their classes? While it is clear that a concept-centered approach can be effective, it is critical that teachers be prepared to guide students with limited background knowledge and skills to profit from this type of teaching. There may be a big difference between the highly conceptual national, state, and professional standards that teachers are expected to teach and the specific day-to-day instructional activities that they plan and implement with students. And, in fact, studies have shown that teachers do not consistently use learning activities and assignments that focus on concepts and skills contained in state standards. In some cases, teachers thought they were using activities to support conceptual learning, but they were not because they had not recognized "the full complexity of the skills being measured on the state assessment" (McDonnell, McLaughlin, & Morison, 1997, p. 43). Certainly, if all students are to meet higher standards that include conceptual learning, teachers must be prepared to help them by planning appropriate learning activities.

Teaching Difficulties   Other issues arise as teachers think about curriculum planning. If teachers move to an abstract level of instruction, access to the content becomes even more difficult for some students. This can happen when teachers try to teach critical thinking without a good understanding of how students learn and practice critical thinking. Teachers also may not be prepared for the explicitness, time, and effort required to lead many students to understanding critical ideas. Furthermore, textbooks may not help them organize information around critical ideas. Finally, teachers may not believe that all students can learn all the content of a particular lesson.

(Hence the commonly heard response: "You want us to develop a lesson in which all the students will 'get it?' That never happens; there are always some students who will never get it.")

These difficulties are understandable. As we have watched secondary teachers struggle to teach content to academically diverse groups of students, we have developed a new paradigm for curriculum design that provides guidance on how to plan to teach critical content that all students will learn. This new approach is based on the idea that addressing the diverse learning needs of students begins with the selection of critical learning outcomes—what do you want students to know and be able to do after completing a given lesson, unit, or course? This new approach then provides a structured way to plan for instruction that is organized, explicit, and examined.


Focus and Reflect

- What do you think is meant by the "teaching by mentioning it" approach to content coverage?
- Using a textbook in your content area or a state standard available from one of the many Web sites listed at the end of this chapter, choose a unit topic and develop a list of the important ideas, concepts, or information students should learn in that unit. Then, using Wiggins and McTighe's approach to curriculum planning, classify the unit information as (a) important for students to know in order to have an "enduring understanding" of the topic, (b) important for students to "know and do," or (c) "worth being familiar with."

Exploring the Curriculum

Approaches to promoting more inclusive planning have been proposed by some researchers. For example, Wiggins and McTighe (1998) argued for selecting content that all students should know based on whether or not the information helps students understand an overarching idea or concept in a course. This is consistent with what Carnine (1994) and Woodward (1994) have described as teaching through "big ideas," or the generative principles and concepts that help students develop holistic understandings of content. An example of such an idea or principle might be an examination of economic roles and responsibilities of capitalists in late nineteenth century U.S. history. Should we regard men like John D. Rockefeller and Cornelius Vanderbilt as "captains of industry" or "robber barons?" The different characterizations of these men convey different views of political and economic developments in the United States at that time, and could provide the opportunity to present engaging big ideas, as well as organizing concepts to structure learning.

Building on what we know about curriculum, teaching, and diversity, teachers must approach planning in smarter ways, an approach that is in line with the "backward design" curriculum framework proposed by Wiggins and McTighe (1998). We believe that "smarter" planning involves three components: content, process, and integration. First, it requires us to think differently about how we select *content* to reflect learning expectations specified in state and local standards. Second, smarter planning can be accomplished more efficiently when we develop a *process* for thinking about curriculum planning decisions. In this chapter, we will introduce this planning process and in the next chapter, we will outline the steps used to implement it. This smarter planning process will be revisited in many of the remaining chapters of this book as it is *integrated* in planning at the course, unit, and lesson levels. Chapters 6, 7, and 8 will focus on planning at each of these levels and Chapters 9 and 10 will focus on teaching practices to enhance learning.

FIGURE 3.2
Curriculum Knowledge
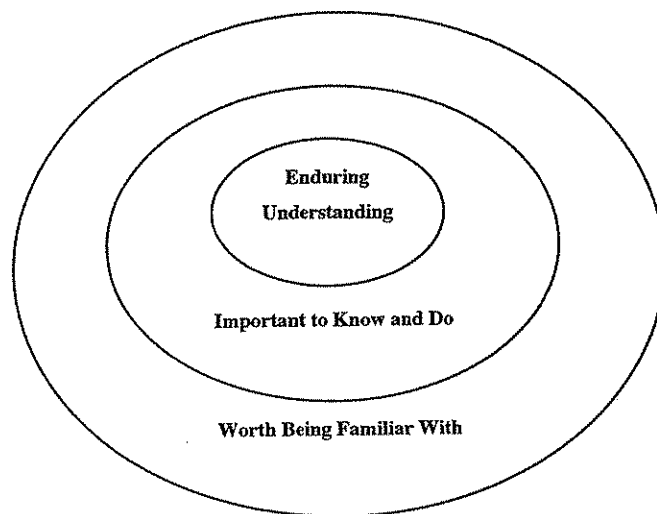
Enduring Understanding

Important to Know and Do

Worth Being Familiar With

As mentioned, Wiggins and McTighe (1998) proposed that we think of the curriculum as consisting of knowledge that contributes "enduring understanding," is "important to know and do," and/or is "worth being familiar with." They depict this continuum in a visual consisting of three progressively wider circles (see Figure 3.2). This framework helps us think about curriculum in light of the standards movement because it provides a way of sorting information according to its importance to the learner. However, it falls short of helping us understand what should be mastered by all students, given the realties of the secondary classroom. For example, what should *all* students be expected to know and be able to do and what should *most* students be expected to know and be able to do? And is there a part of the content we should not necessarily expect all students to master because it is not critical to an understanding of the important ideas in a course?

We can begin to examine what content to emphasize by thinking about the continuum represented in Figure 3.3. Let's start by considering the body of knowledge that represents the field of social studies. Social studies incorporates a vast amount of information covering the entire development of all the civilizations of the world. Curriculum developers group this information into disciplines, such as history, civics, geography, and so forth, in order to focus learning. Within the discipline of history, courses focusing on the history of the world or on specific countries (e.g., History of the United States or History of Canada) are created. More specialized courses may focus on state history (e.g., Kansas State History). So, for all knowledge related to social studies, decisions are made about what information should be grouped to create courses about history.

The many dots in Figure 3.3 represent all known information about social studies. The outer circle groups information related to the field of history. Moving inward, the next circle represents the set of information that could be grouped as relating primarily to United States history. However, because we cannot teach everything about the history of the United States, the next inner circle represents information about the United States that might be included in a high school history class. A United States history class taught in a middle school would require another inner circle, and a

FIGURE 3.3
Social Studies
Knowledge

History

United States History

High School U.S. History

Middle School U.S. History

Elementary U.S. History
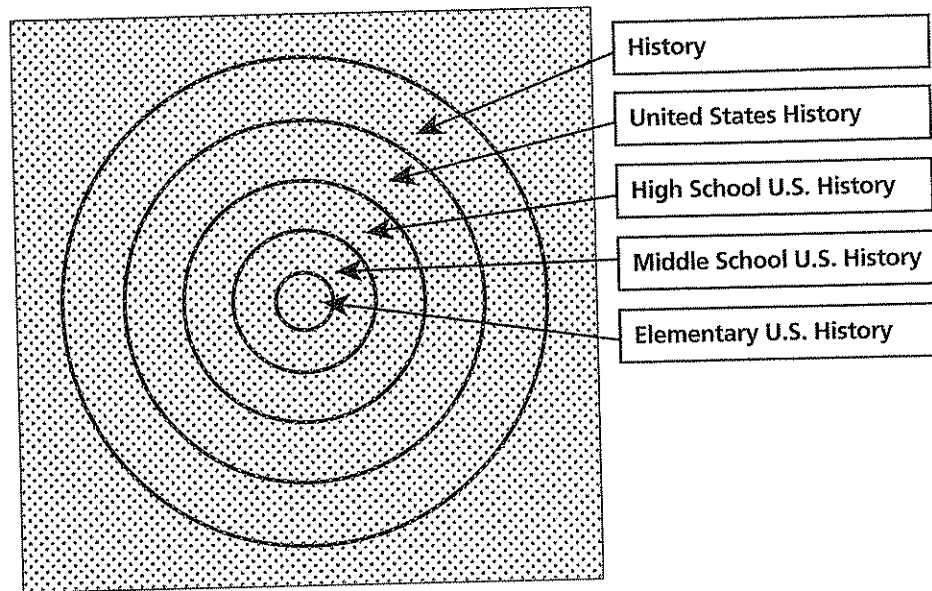
course taught in an elementary classroom would require yet another, and even smaller, circle. The point is that, because of the sheer quantity of information that exists, we are constantly required to determine what to include in a specific course.

The question for historians and curriculum makers, however, is what makes United States history worth knowing. We create courses to help us teach important sets of information, linked by big ideas, that organize and help us understand a body of knowledge thought to be important. Courses that are considered to be most important are "required," and all students must take them. Elective courses are judged as important for some students, and enrollment is optional or "elective."

Now let's take a look at how we can think about course design. Earlier we described a course as a set of information selected from a larger subject area and targeted at a particular grade level of students. We use a circle (Figure 3.4) to cluster the information that would be included in a course. As we consider the information within this circle, we need to remember that a course is based on or revolves around a set of critical ideas, represented by stars in Figure 3.4, that define how the larger set of information should be organized and understood. Figure 3.5 shows these ideas as a set of stars clustered at the center or core of the circle. These ideas should be drawn from content-area standards set at the national, state, district, school, department, or classroom level. They represent what is essential for all students to learn, and they often represent enduring understandings. However, more important, they must represent what is critical for all students to know in our society, and they must provide an anchor for all the other information that is presented in the various units in a course. In addition, decisions related to instruction, activities, and evaluation must revolve around ensuring mastery of this critical information for all students.

Using the image of a circle or pie to represent the curriculum of a course, we can then extend our thinking about curriculum design to the unit level. Figure 3.6 shows the circle or pie sliced into pieces that may be thought of as
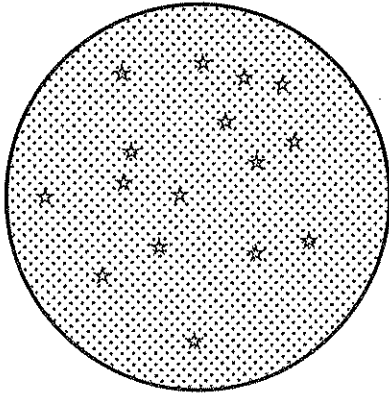
FIGURE 3.4
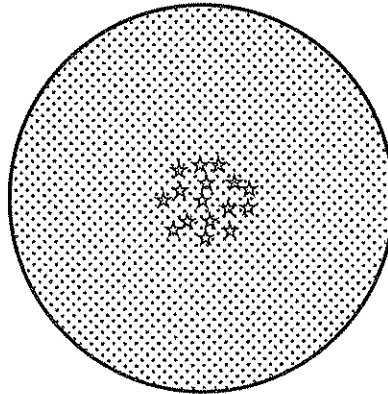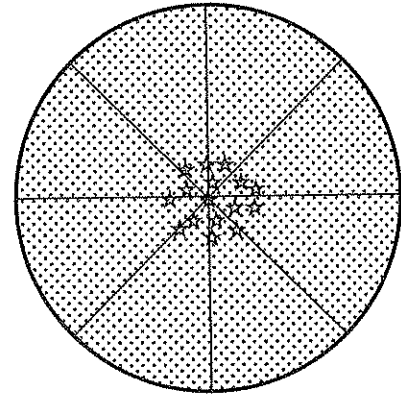Course Knowledge

FIGURE 3.5
Critical Course Knowledge

FIGURE 3.6
Course Knowledge Divided
into Units

units in a course. Notice the stars at the small end of every slice (unit) of the course pie. The stars represent critical ideas of a unit that anchor the rest of the information in the unit.
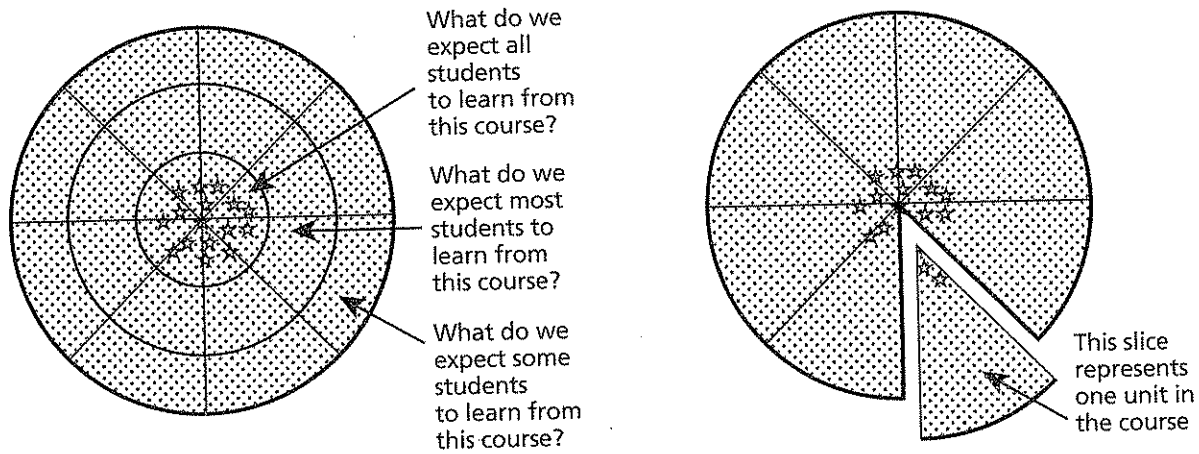
The Unit: A Slice of the Course Pie   A slice of the course pie representing a unit is shown in Figures 3.7 and 3.8. At the unit level, we can begin to think in more detail about how we will organize curriculum experiences for students. The point or narrowest part of the slice represents the critical content that all students should be expected to know and demonstrate. At the very center of this narrow area we use a star to indicate that the content in this unit should be selected based on the degree to which it supports understanding of a critical idea, concept, or, as Wiggins and McTighe propose, an "enduring understanding" that rests at the heart of the discipline.

If all students should be able to master this content, what percentage of the content do you think this would be? It is important to remember that as classes become more diverse, it will take us longer to teach the same content. Therefore, it is important to select the set of concepts that helps organize the rest of the information in the unit and then to identify the supporting content that is absolutely critical for unlocking the discipline and the rest of the content included in the unit. Therefore, the critical ideas and content in the narrowest portion of the slice should be thought of as the content that unlocks understanding of the larger body of knowledge at the broader end of the slice that all students must master. As an example, in Figure 3.8, 10 percent of the content may be designated as critical. The part of the content that includes concepts or themes, and supporting ideas and information, designated as critical may be relatively small, because a unit is often constructed around only one or two critical ideas. We could expect student work that demonstrates mastery of the critical ideas and content at this level to be evaluated as "C" work, the average or expected level of performance in a secondary school curriculum.
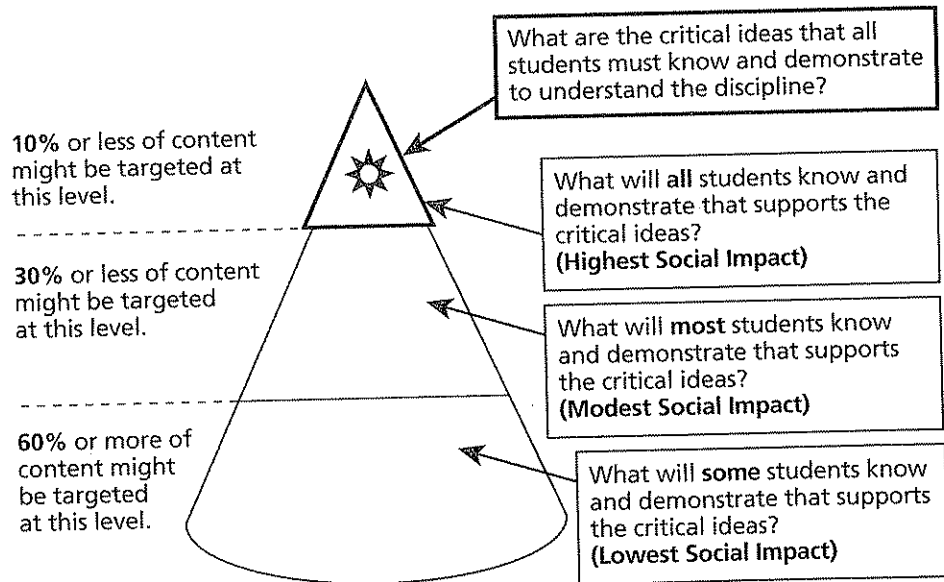
Focus and Reflect

Using a textbook in your content area or a set of state standards available from one of the many Web sites listed at the end of this chapter, identify a course you might teach. Using Figures 3.4 and 3.7, consider what you believe students should learn in this course. Identify first the Course Knowledge and then the Critical Course Knowledge.

FIGURE 3.7   Units as Slices of the Course Curriculum Pie

What do we expect all students to learn from this course?

What do we expect most students to learn from this course?

What do we expect some students to learn from this course?

This slice represents one unit in the course

In a unit on the causes of the Civil War, a critical idea that unlocks understanding might be the concept of "sectionalism"—conflicts that arose because of differences between geographical sections of the country. If a teacher believes that "sectionalism" is an important idea that is at the heart of understanding the Civil War, then this is a critical idea that will guide instruction for other content in this unit. Therefore, we must now determine what all students must know about sectionalism as a cause of the Civil War. A teacher might decide that all students must understand how economic, social, and political differences led to sectionalism. Having made this decision, a teacher would then need to make choices about what information is critical to understanding these differences. For example, do students need

FIGURE 3.8
Prioritizing Content for Instruction in High School Core Curriculum Courses

10% or less of content might be targeted at this level.

30% or less of content might be targeted at this level.

60% or more of content might be targeted at this level.

What are the critical ideas that all students must know and demonstrate to understand the discipline?

What will **all** students know and demonstrate that supports the critical ideas?
(Highest Social Impact)

What will **most** students know and demonstrate that supports the critical ideas?
(Modest Social Impact)

What will **some** students know and demonstrate that supports the critical ideas?
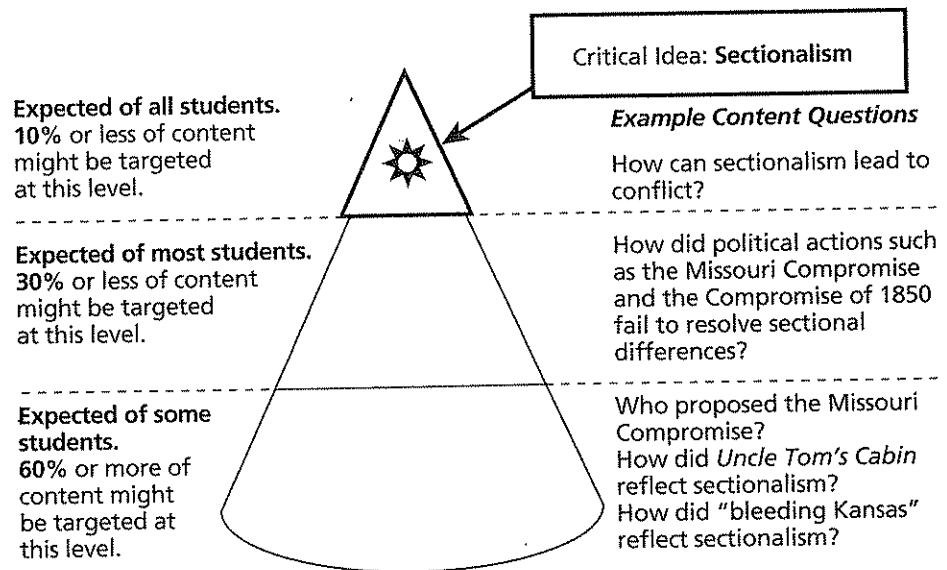**(Lowest Social Impact)**

to know about the invention of the cotton gin? Do students need to know how the invention of the cotton gin affected the economy of the South? Is this information important in understanding the economic differences noted above? Is this something all students should know?

Because it may be argued that the invention of the cotton gin "revolutionized" the economy of the South and "helped perpetuate slavery" (Foner & Garraty, 1991), it might be considered an important idea in a study of sectional differences in the United States. In order for students to appreciate its significance, it would be critical for them to know that this invention permitted cotton growers in the South to increase cotton production. Students would also need to understand that increased cotton production required more slaves to provide labor, and that the South became ever more dependent on slavery as their growing economic wealth became dependent on the cultivation of cotton.

Figure 3.9 illustrates how content related to a unit on the causes of the Civil War might be sorted out. The middle area of the unit slice represents what *most* students should know and demonstrate about the critical idea represented by the star at the top of the slice. The percentage of information at this level of the pie increases, but it is still limited because we want most students to acquire this information. In other words, we judge it to be important, but not critical. We could expect the work of students that meets the stated mastery criteria for the critical ideas and content at both the top and the middle part of the curriculum pie to be evaluated as "B" work—above average or greater than the expected level of performance in a high school curriculum.

The broadest, lowest area of the pie represents the content in a unit that some students should know and demonstrate. The quantity of information at this level is the most extensive and, to a large degree, is highly personalized. That is, there is more information here than all students need to know in order to understand the big ideas of the unit. What students focus on

FIGURE 3.9

Example of Prioritized Content

Prioritized Content for "Causes of The Civil War"

Expected of all students. 10% or less of content might be targeted at this level.

Expected of most students. 30% or less of content might be targeted at this level.

Expected of some students. 60% or more of content might be targeted at this level.

Critical Idea: **Sectionalism**

Example Content Questions

How can sectionalism lead to conflict?

How did political actions such as the Missouri Compromise and the Compromise of 1850 fail to resolve sectional differences?

Who proposed the Missouri Compromise?
How did *Uncle Tom's Cabin* reflect sectionalism?
How did "bleeding Kansas" reflect sectionalism?

may, to some extent, be a function of their interests or curiosity. This area of the pie does not represent information that is unimportant or trivial; it may be interesting information, and it might ignite the imagination of some students. As such, the information here may be helpful to students doing research projects or reports, or for students who want to extend their learning to a more detailed level. However, our expectations as teachers should be that, because this content is not essential for understanding the big ideas and supporting information of a unit, smaller amounts of instructional time should be devoted to it than to the critical ideas and information of the course. Similarly, it should not represent a significant share of the assessment of student mastery of the unit content.

Returning to our example of the economic causes of the Civil War and the invention of the cotton gin, a teacher might decide that information at the lowest, broadest level of the unit slice might include details such as the date when the cotton gin was invented and how it worked. This information is not central to understanding the important role of this invention in the economic development of the South, and therefore we have the least social investment in all, or even most, students being held accountable for this level of detail. We would expect the work of students meeting the stated mastery criteria for the critical ideas and content at all three levels of the pie to be evaluated as "A" work, well above average, or the highest level of expected performance in a high school curriculum.

It is very important to note that while we cannot expect all or even most students to become proficient at this level, *all* students should have access to information here. For example, the information may spark the interest of individual students, prompting them to want to explore topics or ideas further. The information in this area of the pie is worth knowing; however, in terms of planning for instruction and assessment in the real world of limited time and resources, information at this level of the curriculum slice is not critical for understanding the important ideas of a unit. Students should have the opportunity to learn it, but not all students should be held accountable for it in terms of passing or failing.

However you choose to select critical content, it remains an essential step in planning and an essential process for including all students in learning. If choices about critical content are not made at this early stage, you run the risk that instructional time, focus, and energy will evaporate as you try to cover everything. And, in trying to cover everything, you run the risk that instruction and learning will be superficial for all students. This is not an effective way to include all students in learning.

Ways of Thinking   In addition to prioritizing content for purposes of instruction and assessment, it is important to think about the different ways students will be expected to think about and use the knowledge they will be learning. These ways of thinking are often discussed in preservice texts in the context of Bloom's taxonomy of cognitive objectives (see, for example, Sadker & Sadker, 1999). We have found in talking to teachers over the years that, in practice, they find the six levels of Bloom's taxonomy cumbersome, and that the levels overlap a great deal. We have reconfigured the taxonomy of cognitive objectives to three levels: acquisition, manipulation, and generalization. Acquisition corresponds to Bloom's levels of knowledge and comprehension; manipulation corresponds to application, analysis, and synthesis; and generalization corresponds to evaluation.

Focus and Reflect
Take the course knowledge you have identified in the previous Focus and Reflect activity and break it down into units. For each unit, identify the critical course knowledge. Look at Figures 3.6 and 3.7 to help you conceptualize this process.

▨ Scenario Revisited

Mary Cochran and the rest of the social studies faculty from Franklin High School had just spent three days at a workshop on curriculum planning with other department teams from their school. During the workshop, they had worked on planning. The principal had agreed to pay for several days of team planning time over the summer, and to invest in some follow-up training and support in August and throughout the following year. The team agreed to work individually at first and report progress at the weekly department meetings that would be held during the last five weeks of the school year.

Over the weekend, Ms. Cochran spread the materials from the workshop out on her dining room table. The workshop guidelines for planning suggested that she should begin by focusing on curriculum planning. First, she pulled out the list of state standards. She worked to cluster the benchmarks and the ideas that were embedded in them. After digesting what the standards were really getting at, she looked in her textbook to see where and how the standards might be taught and learned. She also thought about whether the standards would help organize or tie together information in the textbook.

Teaching with both the state standards in mind and a goal of reaching all students was clearly going to be a challenge. While Ms. Cochran had always made choices about what she would teach, she had let the textbook be her guide in selecting and organizing topics to teach. As she looked at the textbook in light of the standards, she realized that the textbook did not really set out many good organizing themes or big ideas to tie together the chunks of information. Consequently, she was going to have to think carefully about what she would teach now and how she would teach it.
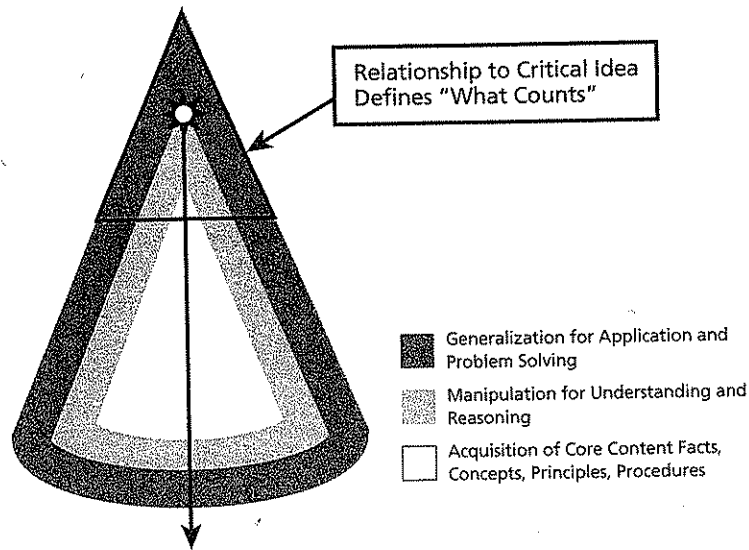

Focus and Reflect

Take one of the units you have identified in the previous Focus and Reflect activity and choose one part of the critical content of that unit. Describe the critical content and then outline instructional activities designed to help students acquire, manipulate, and generalize that content, as described above and shown in Figure 3.10.

Figure 3.10 applies these ways of knowing to the unit slice we have been discussing. The white interior area of the slice represents student performances, demonstrating student acquisition of facts and concepts. Moving outward from the center area is the next layer, shaded light gray, which represents student manipulation of information. The outermost layer, shaded darker gray, represents student performances where there is generalization of content knowledge so that it may be applied and used. Note that all three ways of thinking—acquisition, manipulation, and generalization—are addressed in all three content sections of the slice. At the top of the unit slice, the important ideas and information of the unit may comprise a small portion of the total amount of content information to be learned, but all students will be expected to successfully use cognitive processes of acquisition, manipulation, and generalization to process that knowledge. Acquisition of the content knowledge in this top slice, as well as manipulation and generalization in using this content, will result in students attaining a passing grade (commonly associated with a "C" performance).

Assessing Competence   Standards-based reform requires that we think about what we teach (the content standards) and how we want students to demonstrate competence (performance standards). The discussion up to this point has focused on what to teach and how to make decisions about where to focus instructional time and resources. However, we must also think about how we want students to demonstrate what they have learned and how to develop assessment tasks.
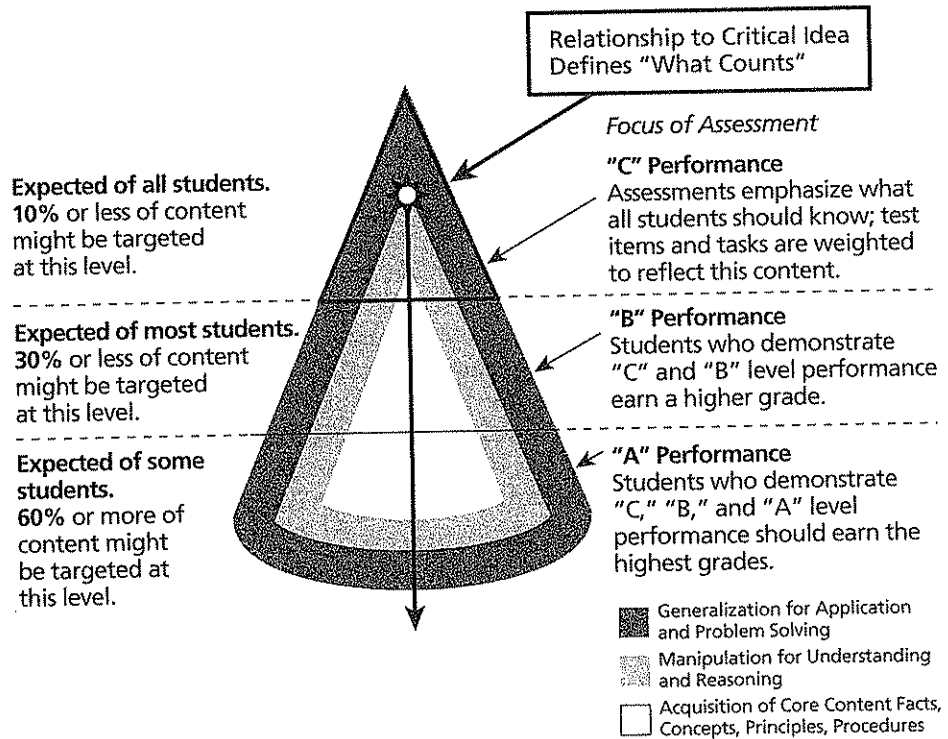
FIGURE 3.10

Linking Teaching and Assessment

Assessment Focus Is on the Type of Outcome Expected

Relationship to Critical Idea Defines "What Counts"

■ Generalization for Application and Problem Solving

▨ Manipulation for Understanding and Reasoning

□ Acquisition of Core Content Facts, Concepts, Principles, Procedures

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Let's continue to use the image of a slice of the course pie and the unit as our focus to explore how we can think about competence in terms of both content knowledge and ways of thinking. Figure 3.11, in addition to showing how the slice of the course pie can be divided to show how content is prioritized, may also be divided into layers from the inside out (as in Figure 3.10) to indicate how we can develop expectations about student performance in manipulating content.

FIGURE 3.11

Linking Teaching and Assessment

Assessment Focus Is on the Type of Outcome Expected

Relationship to Critical Idea Defines "What Counts"

Focus of Assessment

Expected of all students.
10% or less of content might be targeted at this level.

Expected of most students.
30% or less of content might be targeted at this level.

Expected of some students.
60% or more of content might be targeted at this level.

"C" Performance
Assessments emphasize what all students should know; test items and tasks are weighted to reflect this content.

"B" Performance
Students who demonstrate "C" and "B" level performance earn a higher grade.

"A" Performance
Students who demonstrate "C," "B," and "A" level performance should earn the highest grades.

■ Generalization for Application and Problem Solving

▨ Manipulation for Understanding and Reasoning

□ Acquisition of Core Content Facts, Concepts, Principles, Procedures

The white, innermost area within the top section of the unit slice represents the information that students need to know so other learning can occur (e.g., What is democracy? What is a simple sentence? How do you measure a room? What is a mammal?). At this level, teachers assess whether students have *acquired* knowledge of facts, concepts, principles, and procedures. In assessments of this type, students may be asked to identify, state, define, or summarize the information they have acquired. This allows us to determine whether students know facts and understand concepts, principles, and procedures, and whether they comprehend the information at a level that allows them to explain or summarize the information in their own words.

Moving outward through the layers of performance expectations, the next layer (gray) indicates expectations related to how we want students to manipulate the content core, and how we want them to think about and explore information (e.g., Why do people value democracy? How are simple and compound sentences alike and different? How can measuring wrong affect construction costs? How are mammals different from birds?). In assessments of this type, students may be asked to analyze the characteristics of concepts, compare or contrast information, or cluster information based on similarities of characteristics. They may also be asked to apply information they have learned in the content area.

The outermost layer indicates teacher expectations related to application of information to the real world in the form of novel problem solving and generalization (e.g., How has creating a democracy affected the people of Russia? Write a letter to persuade the mayor about something that is important to you. What kind of apartment can you afford in this neighborhood on the salary that you plan to earn when you graduate? How will recycling affect your taxes and environment over the next ten years?). At this level, teachers may ask students to use the information they have acquired in new situations, that is, to *generalize* their knowledge to new challenges. This may involve creating new solutions or plans, solving ill-defined problems, evaluating materials or methods, making decisions, persuading others of their opinions, or inferring patterns.

To summarize, using Figure 3.11 can help you visualize how to select and prioritize content that students will learn. It can also help you visualize what your expectations are about how students will process content. For each level of content, from the essential ideas and information all students must master to the information and ideas that are less essential, all students will be expected to process information at each of the three levels of acquisition, manipulation, and generalization. Because the information selected for assessment will not be limited to any one type of content information (i.e., from any one level of prioritized content), instruction should result in all students being able to meet performance standards for all three types of knowledge.

SMARTER Planning and Teaching Principles

Content selection is fundamental to planning for inclusive instruction, along with maintaining the integrity of the content. The integrity of the content is maintained when it is not watered down and the critical information remains as the central message of instruction. You, as the teacher, have the primary responsibility for differentiating critical information from less criti-

▣ *Scenario Revisited*

As Mary Cochran developed her plans, she tried to think about assessment as well as critical content. For each critical idea that Ms. Cochran identified in her planning, she thought about different ways to assess student learning. She wanted students to learn some factual information, because they needed a base on which to build more complex understandings of ideas and concepts. This kind of knowledge was easy enough to assess with objective tests, and she could have students practice learning the information through classroom games like Jeopardy—they always enjoyed that!

Ms. Cochran also wanted students to be able to reason about the big ideas of the course. For example, in the unit on exploration of the New World, she had tentatively decided that a critical idea was the importance of technological innovation in spurring exploration. The invention of better instruments and sailing ships could be explored with students, and parallels could be drawn to modern-day inventions that spurred space exploration. In the process of guiding students in learning about these developments, she wanted to structure activities along with assessments that would require students to ask

and answer questions such as, Why did European explorers risk everything to sail into the unknown? Why did they risk it at this particular time in history? Perhaps these could be research projects or group projects. She would have to think about that some more.

To help make history come alive for her students, Ms. Cochran also wanted to have students take what they were learning and apply it to different situations to gain insights about current political and social developments. For example, in the unit on exploration, perhaps students could discuss the exploits of Christopher Columbus in light of current views on his accomplishments. What has influenced the attitudes of some today in the United States toward Columbus? This was an interesting idea, but perhaps it is not tied to a critical idea for the course. Perhaps she would incorporate this at a lower level in her prioritizing of content. This was a complicated business, sorting out content and how to guide and challenge students to think about it in different ways. Ms. Cochran recognized that she would never have had the time—or energy!—to do this kind of thinking during the school year.

cal information and building instruction around important ideas. In addition, critical elements must be transformed to meet the needs of the group, as well as individual students. You have the responsibility to transform content in ways that students will be able to understand, organize, remember, and respond to expectations to use the information. As a process that includes all these elements, inclusive planning is indeed a challenge. To meet that challenge we propose a process that can help you select critical content, transform it to make it accessible to students, plan to accommodate the diverse learning styles of students, and use appropriate assessments. In the remainder of this chapter we will discuss the broad outlines of the SMARTER planning process.

As we discuss this planning process, we urge you to tolerate a degree of "cognitive dissonance" which, according to Thompson and Zeuli (1999), is a first requirement for real change in professional practice. The methods described in this text represent a new approach to inclusive planning and teaching. However, if you are unwilling to question old ways—if you cannot tolerate some cognitive dissonance—then you may not implement this new planning process in the manner shown by research to make it effective and instead may merely "tinker" with your practice, say Thompson and Zeuli, rather than transform it.

Although the SMARTER planning process incorporates a new planning paradigm, it also incorporates more traditional ways to teach inclusively. In this chapter we paint the "big picture" of the new planning paradigm with the SMARTER planning process. Then, in later chapters, and especially in Chapter 9, "Teaching Content in an Academically Diverse Classroom," we elaborate on methods that may be incorporated in the SMARTER planning approach, some of which have been used as tools over the years to accommodate differences among learners. The key in transforming practice is that the content planning must be done up front to make traditional techniques and methods most effective.

The SMARTER planning process provides a structure for reflective planning that will help you shape critical questions about your content, organize content in a graphic map, analyze that content for learning difficulties it may pose, reach decisions about how to enhance your teaching to overcome learning difficulties students may have, teach strategically to help students learn how to learn, and then evaluate student mastery of your content and revisit learning outcomes. We discuss all seven parts of the process, but since this chapter is about curriculum planning, we will focus here on curricular issues. Other parts of the process related to teaching methods will be developed in more detail in subsequent chapters.

Just as we will not present all of the SMARTER planning process in this one chapter, so too should you avoid trying to implement all parts of this process in a single "chapter" of your teaching. Be patient with implementation of these new ideas. We suggest—and continue to suggest throughout the book—that you choose a few basic ideas and methods to begin with and then add other parts of the process to your planning and teaching repertoires as you come to understand more fully how the SMARTER planning process works and how it can help you involve more students in learning.

Shape the Critical Questions   Teachers commonly are required to adhere to state-specified standards. Such standards include many sets of objectives or "essential learnings" that have been generated by a state educational agency, the local school district, a professional organization, or the publisher of the textbook or instructional materials used in a classroom. The teacher's task is to know the standards and transform the expectations into a functional and meaningful set of learning goals and activities. To do this, you must stand back and consider the expected outcomes in a way that will help you stay focused and translate learning goals to students. Failing to select and focus on the critical outcomes is likely to result in simply covering a myriad of pieces of information at a surface level.

An effective way to achieve learning goals is to translate the critical outcomes into a small set of "big idea" questions that reflect what is critical in and about the content to be learned. You can shape these critical questions by asking yourself what is really critical for all students to know and understand in whatever course, unit, or lesson you are planning to teach. How can learning outcomes be cast as critical questions that capture the essence of what students need to learn? And, just as importantly, what are the central or big ideas that tie all of this information together?

Critical questions should meet several criteria in order to be considered good questions. In general, they should be broad questions, not objectives or commands, that use words like "how" and "why." (It is easy to make the mistake of writing critical questions the same way you write learning

objectives.) They should be in a form that requires an extended verbal explanation. At the course level, the questions should not only be broad but conversational (see examples in sidebar); at the unit level, the questions are targeted at mastery of unit content and need to be more specific; at the lesson level, the questions need to be more concrete and lead to mastery of unit questions. In math or language arts, a final outcome task that requires computing or writing should be accompanied by a "how" or "what" question. For example, a critical question might be, "What is good writing and how can it help you achieve your goals?" While good questions do not always have to begin with these words, it frequently helps if they do. Questions that can be answered by providing one word, a definition, or a list are usually poor questions.

Critical questions should identify ways in which students should understand the information to be learned. Questions must communicate how the teacher wants students to think about content and ideas. If an expected learning outcome is to be able to compare two concepts, then a question simply asking students to define each concept is inadequate. A critical question should prompt the performance level that is expected. An example of this kind of question might be: "What is a democracy and what is a republic and how are they similar and different?"

Course Questions for a Middle School Spanish Course

1. How are Spanish and American cultures alike and different?
2. Why is it important to memorize certain expressions?
3. How is pronunciation the same in English and Spanish?
4. How is pronunciation different in English and Spanish?
5. What are good ways to practice new words and phrases?
6. What are some of the advantages of learning a foreign language?
7. Where is Spanish spoken in the world?
8. How are reading and writing in Spanish and English alike and different?

Well-constructed critical questions can help students think not only about the content but also about how the content is meaningful or important. Questions that are worth discussing usually have some relationship to life other than "the teacher made me learn it." Thus, questions should prompt students to relate learning to life or to other learning. For example, "What are the systems in the body?" is not as good a question as "How do the systems of the body work together to keep us healthy?" Of course, the first question is part of the second, larger question and students need to be able to answer the first question before they can answer the second, broader question. However, the bigger "context" question is the critical question because it communicates context and meaning for learning.

Good critical questions should help students organize information to be learned, because they should be tied to the supporting information and help students make connections. Once the question "How do the systems of the body work together to keep us healthy?" is posed, students should expect that they will be spending a significant amount of learning time understanding different systems, remembering what they are, and then describing how they work together. In other words, all the information to be presented about body systems will be tied to answering this single question. If the question does not help the student tie learning together, make associations, and help them organize, the question is flawed.

Critical questions may include expectations for learning how to learn the content, as well as what content to learn. Outcome questions can address *how* a student should learn, as well as *what* a student should learn. For example, if learning a strategy for developing good writing skills or writing good paragraphs is to be part of an English course, then learning

that strategy should be part of a critical course question. Such a question might be: "How do you write a great paragraph using the paragraph writing strategy?" If *how* a student is to learn the content is important, then that should be reflected in the critical questions.

Critical questions should help students identify the critical concepts or ideas to be learned and help them to do well on outcome evaluations. The questions should focus student attention on what is important and communicate to the student where most study time should be spent. Of course, critical questions should be linked to the tests or performance measures that will be used to evaluate learning. If a set of outcome measures have already been selected to evaluate learning, then the tests should be used as a guide in constructing the critical questions.

For course planning, teachers should develop about 10 questions that every student in a class will be able to answer by the end of the year. Once the questions are developed, they are given to students who can use them to guide course progress as the units in the course are taught and learned. (More examples of course questions may be found in Appendix B, in which four scenarios describe teachers using critical questions in their planning.)

Map the Critical Content   While keeping the critical questions in mind, construct a content map to provide a graphic representation of how the content might be organized or sequenced. By constructing such a map, you can help students visualize a way to think about the content. Clear statements of the unit titles, essential points, and key vocabulary set the stage for an overview of the entire course.

Each chapter in this book begins with a content map (graphic organizer) showing the major topics to be discussed and how they are related to one another. In the content map for this chapter, the three major topics are: Standards and the Need to Select Critical Outcomes, Rethinking Planning and Teaching, and SMARTER Planning and Teaching Principles. At the end of each chapter is another, expanded content map showing the main subtopics. For example, in this chapter, under SMARTER Planning, the seven steps of this planning process are set out, both indicating how this fits into the overall plan for this unit of instruction and providing a review sheet of the topics covered. If you look at the critical questions presented at the beginning of this chapter, you will see that the elements of the content map are all related to the critical questions.

Organizing the content of a course for students can provide a scaffold on which they can "hang" newly learned content. Textbooks do not necessarily provide this structure or scaffolding. Studies have found that many students have trouble reading and understanding textbooks, and that textbooks often present information in ways that confuse students (Anrig & Lapointe, 1989; Doyle, 1992). In organizing course content, you need to think not only about how to sequence topics but also what the connections and relationships are between topics, ideas, and concepts. While the critical questions help focus attention on what to learn, it is still necessary to help students think about the content in ways that allow them to answer the critical questions. As the content expert, you have the responsibility to help students think about the content in meaningful ways.

There are several criteria for developing a good content map. In general, a good content map should include the "big idea" paraphrase. It should

capture the major point to be learned as the content is taught. For the content map at the beginning of this chapter, for example, the "big idea" paraphrase is "Deciding What to Teach and How to Teach It."

In general, a big idea paraphrase should capture in a few words the main idea or point to be emphasized during instruction. It should be understandable and constructed of vocabulary that can either be understood independently by students, or easily explained, so that all students can understand it. Finally, it should be inclusive so that all learning outcomes can be linked to the paraphrase.

The heart of the content map is a graphic representation of the various elements of the content to be taught and learned. To be effective as a learning guide, the map should be well structured. A good content structure is limiting, connected, linear, hierarchical, labeled, and simple.

1. *Limiting.* The idea of the content map is to show students how to think about and organize the content so they can use the map to recall the information. The map should be limited to help focus student attention on the big ideas that will be used to organize the content. If the map becomes very complex with many parts and connections, you and students will have trouble focusing on the critical ideas of the course. For a unit or lesson, there should be seven or fewer parts. Supporting information can then be organized around these ideas.

2. *Connected.* Each section of the map should be connected with lines to the other sections when an important relationship is to be established. Arrows may be included to show additional relationships.

3. *Linear.* While not all thinking and organizational patterns are linear, the content map should present a linear representation of the order in which the content will be learned or show when the content will be presented and how it is to be mastered. Some content maps may illustrate both. In general, the sections on the left side of the map indicate what will be learned/accomplished first, whereas the sections on the right side show what will be learned/accomplished last.

4. *Hierarchical.* Each section of the map should allow for the development of subtopics and associated details. The connecting lines show the hierarchical relationships between the big idea paraphrase and supporting information. Any subcomponents are linked by lines to the associated topic. Different shapes or colors can be used to show the relationship between a topic and its associated subtopics.

5. *Labeled.* At the unit and lesson level, it is critical to make explicit connections within the content. Consequently, content maps for lessons and units include lines and arrows that are labeled with words to explain the relationship or relationships to be explored during instruction. You can check whether your labels are clear by making sure that a complete sentence can be created by linking the topic, the big idea paraphrase, and each part of the content structure. For example, in the graphic organizer at the beginning of this chapter, the title of the chapter and the big idea paraphrase are connected to the topics of the chapters using labels that make the paraphrase and each of the topics a complete sentence: "SMARTER planning for academic diversity is about deciding what to teach and how to teach it by taking into account standards and the need to select critical outcomes."

6. *Simple.* Think of the K.I.S.S. principle: Keep It Simple for Students. The fewer the parts, the clearer the language and vocabulary, and the fewer the words, the more likely it is that students will be able to use the content map to help organize their ideas as learning progresses.

At the course level, a map of the units in a course helps create a road map for what has been learned and what will be learned. Figure 3.12 shows a map for a U.S. History course. In Figure 3.13 the map focuses on one of the course units—"Expansion," in this case—and illustrates how the mapping process extends identification of the important topics and information at the level of a unit of study. When you are teaching at the unit and lesson levels, a content map can be constructed and shared with students to preview learning, organize instruction as the unit or lesson proceeds, and to review learning at the conclusion of instruction.

Some teachers find that constructing a content map first helps them think about the content in different ways, and then afterward, helps them develop different types of critical questions. Other teachers like to develop the questions first and then construct the content map. Regardless of how you approach the planning task, keep in mind that students should be able to use the content map to answer the course questions you have generated. (Other examples of course maps are included in Chapters 4 and 5 and in the Math Scenario in Appendix B.)

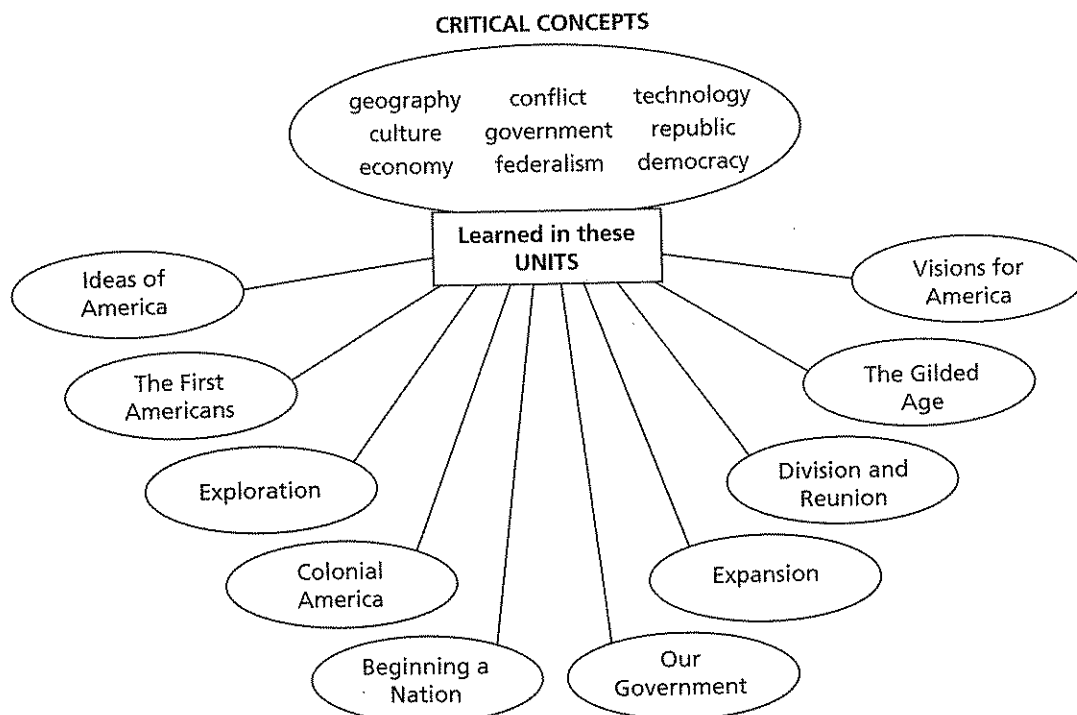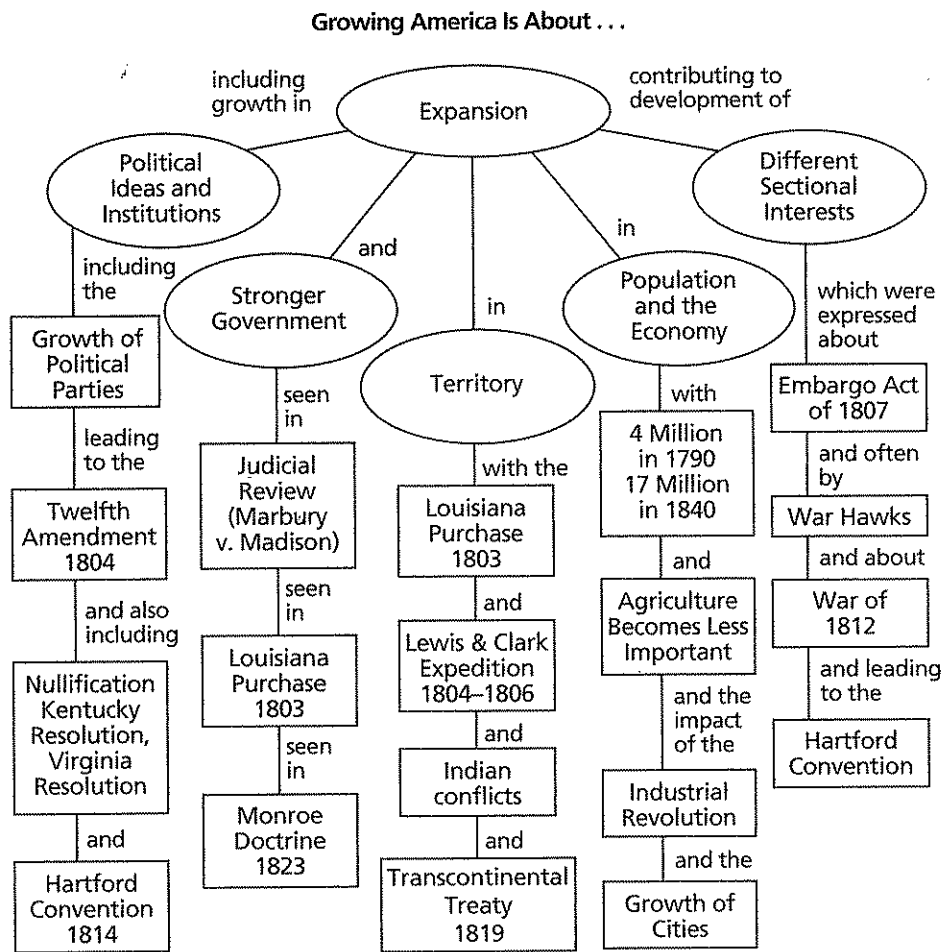**FIGURE 3.12   Course: United States History to 1900**

Source: Adapted from *The Course Organizer Routine*, by Lenz, Schumaker, Deshler, & Bulgren, 1998, p. 72.

FIGURE 3.13
Course: United States
History—Expansion

Growing America Is About . . .

including
growth in

Expansion

contributing to
development of

**Political
Ideas and
Institutions**

and

**Different
Sectional
Interests**

including
the

**Stronger
Government**

in

**Population
and the
Economy**

in

which were
expressed
about

**Growth of
Political
Parties**

Territory

with

**Embargo Act
of 1807**

leading
to the

seen
in

with the

**4 Million
in 1790
17 Million
in 1840**

and often
by

**Twelfth
Amendment
1804**

**Judicial
Review
(Marbury
v. Madison)**

**Louisiana
Purchase
1803**

and

War Hawks

and also
including

seen
in

and

**Agriculture
Becomes Less
Important**

and about

**War of
1812**

**Nullification
Kentucky
Resolution,
Virginia
Resolution**

**Louisiana
Purchase
1803**

**Lewis & Clark
Expedition
1804–1806**

and the
impact
of the

and leading
to the

and

seen
in

and

**Industrial
Revolution**

**Hartford
Convention**

**Hartford
Convention
1814**

**Monroe
Doctrine
1823**

**Indian
conflicts**

and

**Transcontinental
Treaty
1819**

and the

**Growth of
Cities**

Analyze for Learning Difficulties   Once you have selected the critical content and organized it in a content map, you will be in a good position to think about whether students will have difficulties learning the information and ideas in your class. Being able to analyze difficulties that some students may have learning the content you have to teach is based on your knowledge of the content and its complexities. It is also based on your previous experiences in teaching the information and the characteristics of the students in your class.

Knowing the characteristics of the students in your class is particularly important as you establish learning outcomes. Will the content be sufficiently relevant to the lives of all students to engage them in learning? Will all students have the background knowledge necessary to learn the new content? Are certain concepts in the course particularly difficult for some or all students to understand? For example, federalism is an abstract concept that is encountered in history and government courses. How would you teach this concept to students? Comparing and contrasting federalism with, say, the roles and responsibilities of administrators, teachers, and students in a school might be a way to help students understand a new concept within the context of a familiar situation.

Is there information that students simply must memorize in order to have the knowledge base upon which to build further learning? Are steps involved that many students frequently have difficulty following? Is there a theme in a textbook that is clearly identified but for which there seems to be little explanation or development? These are all recurrent teaching problems that surface during the year. Since planning at the beginning of the year dictates so much of what teachers are able to attend to in their instruction, it becomes important for teachers to think about and plan for ways to address these learning difficulties early.

Some teachers may plan to incorporate discovery learning in a course. In analyzing the learning difficulties in such an approach, remember that some students may not "discover" underlying themes in content presented to them. If they cannot discover or construct the knowledge, they will be at a disadvantage in organizing and remembering information related to a course, unit, or lesson. You must be the mediator of content learning, manipulating sources of information and explicitly teaching students using techniques to make information accessible and more learning friendly. If learning goals are clear in your mind and explicit in your instruction, all students will benefit. Anticipating students' learning problems early in the planning process is crucial to inclusive instruction, because figuring out how to address such problems may take more thought and time than you will be able to muster during a typically packed school year. Some evidence suggests that planning methods used by teachers before or early in the school year affect the curriculum experienced by their students all year long (Yinger, 1980). Consequently, if you do not plan up front for how you will teach to address learning needs, these needs may not be addressed during instruction.

How to analyze for learning difficulties, as well as how to address those difficulties through reaching teaching-enhancement decisions, will be further developed in Section Four, Teaching Your Course, and also as unit and lesson planning are discussed in Chapters 7 and 8. In addition, scenarios presented in Appendix B provide a snapshot of teachers analyzing learning difficulties in secondary content classrooms.

Reach Enhancement Decisions   Some of the most important planning decisions you will make are about how you can help students learn the content of your class. This is where you decide how to teach in a way that will address the learning problems you have previously identified. Another way to think about this process is to consider how you might compensate for learning skills or background knowledge that some or many of your students may not have developed.

TEACHING DEVICES. As part of an overall instructional plan, review the list of potential learning difficulties and select devices that might be used to guide learning. Teaching devices are techniques to promote learning and are used by good teachers all the time to help students learn. Common devices include using a mnemonic like FACE, to help students remember the notes in the spaces of a musical staff. Another device is using an analogy to relate new information to something students are already familiar with. Graphic organizers, or content maps, that appear in the chapters in this text, are another device used to help the reader see the organization of the ideas and information in the chapter.

Draft, in writing, what devices or other instructional methods you plan to use and what content information they will be used with. If you are going to use devices like graphic organizers, draft what the organizer might look like. Be prepared to modify devices as you learn more about your students' background knowledge and their learning needs. To make the most effective use of teaching devices, plan for and develop procedures to show students how the device can help them learn the new content. Planning for the explicit use of teaching devices is an important step because this is where you "come clean" with students about how to learn, telling them about the "tricks of the trade" used by good learners. For even as you compensate in your teaching for learning skills that your students may lack, you want to help your students become better independent learners.

TEACHING ROUTINES. When you teach students about the devices you are using to help them learn content, you are developing a teaching routine. A teaching routine is a set of integrated instructional procedures used to guide the introduction and learning of large chunks of information in a lesson (Bulgren & Lenz, 1996). Teaching routines can ensure that devices are used effectively. The procedures of a routine are introduced to the whole class explicitly, that is, students' attention is drawn to the fact that learning particular kinds of content can be facilitated when a particular routine is used. For example, a simple kind of teaching routine might consist of teaching students to learn about concepts by comparing and contrasting them. Characteristics of two concepts may be identified and compared and contrasted as a way to develop definitions of each of the concepts. (A concept-comparison teaching routine is described further in Chapter 9, and other teaching routines are briefly summarized in Appendix C.)

Two factors must be considered when teaching routines are prepared: First, students must know how to take advantage of the routine so they can use the device to learn the information. This means that they need to be informed about how the routine works and how they are supposed to use it to facilitate learning. Some routines may be presented to students at the beginning of the school year and used repeatedly throughout the year; others may be presented for a specific unit or lesson and then used regularly thereafter. However, most routines become effective only after students understand them and have had an opportunity to practice learning with them several times.

Second, teachers must provide leadership in helping students use a routine. While a teaching routine can help compensate for students' lack of an effective or efficient learning strategy, you play a critical role in showing students how to use the routine to learn new information. Therefore, you must plan how you will develop a learning partnership with students. This partnership should be based on the goal of working together to co-construct meaning, with both parties bringing something to the learning situation. As the teacher, you bring knowledge of the content, while students bring their prior knowledge, as well as beliefs about the value of the knowledge. When you use teaching routines in partnership with students, you help students construct their own learning.

In later chapters you will learn more about comprehensive teaching routines that can enhance your instruction. These routines can, among other things, help you help students graphically organize information, explore conceptual knowledge in depth, or understand relationships that recur

frequently in a content area. Further information about teaching routines is included in Appendix C, which describes routines that are part of the Content Enhancement series developed at the Center for Research on Learning at the University of Kansas. In the context of this chapter, however, it is important to recognize that developing ways to enhance learning is an essential part of inclusive teaching and should be part of your overall curriculum planning.

Teach Strategically   Using teaching routines will help guide classroom instruction, but once in the classroom and interacting with students, teachers need to adopt a mind-set for making decisions consistent with the principles of strategic teaching. Strategic teaching is defined as instruction that compensates for the fact that students frequently do not have good skills or strategies for learning, and that simultaneously shows students ways to compensate for their lack of skills or strategies to learn information independently. Strategic teaching uses the processes of: (a) explaining, showing, and modeling for students how information will be taught and learned on an ongoing basis; (b) working with students in partnerships to arrive at learning outcomes; and (c) communicating to students the value of learning how to learn. In strategic teaching, you as the teacher take an active role in involving the student in the learning process. This means being explicit about the way you are teaching and the way students can best learn. Strategic teaching creates a partnership between you and your students so that they see that the way you are teaching is designed to help them learn and that strategies you are teaching them to use can improve their performance.

Strategic teaching requires that teachers emphasize the following in their plans and in their spontaneous interactions with students during instruction:

- *Provide informed instruction.* Informed instruction involves teaching students about the routines or methods you will use to promote their learning. Methods or routines should be thoroughly explained to and demonstrated for students through easily understood examples and familiar information. For example, in teaching students how feedback will be provided, you might explain each step of the feedback routine that you will use throughout the year and then demonstrate the process using a humorous or trumped-up situation by asking a student, another teacher, or the principal to dress out of character in messy clothes. You would then model good feedback on the problem and show students how feedback should be used to alter future performance in this situation and in academic situations.
- *Provide explicit instruction.* This means you must be clear about the goals and expected outcomes of instruction and find ways to share these expectations with students. Some students can readily figure out what is expected of them and can successfully fulfill all expectations. Many other students are not as practiced at figuring out what they are expected to do and need clear and explicit guidelines on what is important and what is expected. Organized and sequenced content instruction and guidance on how to perform critical learning and assessment tasks is a must for many students. Explicit instruc-

tion also involves reminding students when teaching routines are being used and then guiding them to effectively participate in the use of the routines to succeed in learning.

A way to remember what is needed in explicit instruction is to use the **Cue-Do-Review** sequence. This sequence is a process used by a teacher that can promote the explicit instruction needed for strategic teaching. To engage students in learning, **cue** the students about important content, the ways you will be teaching to enhance learning, and your expectations regarding attention, note taking, and participation. Then, teach (**do**) the content using the methods, devices, or teaching routines in a partnership with students. Finally, **review** both the content information and the process involved in teaching.

- *Share plans.* When teachers share their plans with students, they allow students to see what and how learning will occur. You can share your plans with students by developing graphic organizers that help them see how information fits with previously learned information and how they might organize or structure information for learning. Used at the beginning of a course, unit, or lesson, graphic organizers can help you lead students to identify the important relationships, strategies, activities, or standards it will be important to keep in mind as learning progresses.
- *Develop learning partnerships.* A learning partnership is created when the teacher assumes the role of instructional leader and actively seeks the involvement of students in shaping instruction so that it is meaningful and relevant for them. The course of instruction is altered as you get to know your students' background and lives by taking an interest in their prior knowledge and experiences. You show respect for students' experiences, beliefs, and values when you develop lessons that build on what students know, giving them a voice in determining how information will be explored and learned.
- *Communicate the value of using strategies.* Once you become more strategic in your teaching, it is important that your students understand that they are expected to take advantage of this type of instruction and put forth effort themselves to use more effective and efficient strategies for learning. You can help students understand the connection between learning content and using good strategies by making sure they realize that using effective learning strategies can help them be more successful learners. (Developing and teaching learning strategies is discussed more fully in Chapter 10.)

Evaluate Mastery An important element in planning to meet the learning needs of all students is evaluating whether critical learning outcomes have been achieved. Having identified the desired outcomes, you need to be certain that your methods of instruction and evaluation in fact help students attain desired learning and that they measure attainment of the learning and not that of other, unstated, or unspecified learning outcomes.

For example, if a social studies teacher decides that a curricular goal will be the development of reasoning, then instructional activities requiring problem solving should be used to help students develop and practice using reasoning abilities. Goodlad (1984) has observed that if students are only asked to read a textbook, listen to lectures, fill out worksheets, and

take quizzes they will not learn how to reason or think critically. Similarly, tests that require only regurgitating memorized information will not demonstrate whether students have learned any critical thinking or reasoning skills.

Goodlad's observations (1984) underscore the importance of the evaluation step in the planning process. Here, teachers are encouraged to step back and consider what learning has occurred in a completed lesson or unit. Without such reflection, deficits in the instructional process are likely to be repeated, rather than rectified, in succeeding instruction. As you seek to address the learning needs of your students, it is important to reevaluate not only "what worked" and what "didn't work" in your classes, but also, whether it worked for *all* students. Evaluating mastery may help you revise what you are teaching and how you are teaching it so you can more successfully achieve your goals.

Therefore, a critical part of SMARTER planning involves shifting the attention of the evaluation process away from an exclusive focus on students and toward evaluating teacher planning and instruction. Evaluation should focus on assessing the outcomes of planning and teaching to help shape future planning decisions. Ask yourself such questions as: If a device was used, was it effective? If a teaching routine was created, did it work? Did I spend enough time developing the routine? Do I need to redo a routine or use a different one? Did all the students learn what was intended? What do I need to do differently next time?

Evaluation of students may be formal or informal. It can be accomplished through a quiz, an assignment, or an oral question to a specific student. However, as you evaluate students, it is important to remember that your goal is not just to assign grades. In the planning process, evaluation is also conducted to help teachers answer the questions: Am I doing a good job? and What should I do differently?

Revisit Outcomes   At the end of instruction, the outcomes chosen in the planning step, Select Critical Outcomes, must be reviewed. If something is critical, that standard should not be compromised. This means that if students have not learned the critical information, additional instruction should be provided. Abandoning standards may compromise the integrity of the curriculum. The pressure to cover the curriculum should never result in compromising the standards and the integrity of the curriculum for any student. Only if teachers are able to revisit outcomes after a unit and identify where instruction needs to be adapted will they be able to plan ahead to modify instruction in the next unit to enhance the learning of all students.

If there are any outcomes that have not been achieved, then you have only two choices:

Choice 1: Reteach for mastery. Provide additional instruction so the outcome is achieved. If the outcome is critical, the instruction cannot move on until the outcome has been achieved. The word "critical" implies a "life-or-death" outcome for the student in terms of future learning and success. Therefore, the list of critical outcomes or questions becomes the standard for deciding whether to move on or to reteach.

Choice 2: Abandon the outcome. You may choose not to provide additional instruction in an outcome area by admitting that a targeted outcome is not really critical. In essence, by choosing this option, you admit you made a mistake in determining what was critical and that the standards for

instruction need to be altered. This is a legitimate choice, because during the process of teaching, teachers constantly reevaluate what is and what is not important. Sometimes the outcomes will change; some outcomes may be dropped while others may be added.

Doyle (1992) noted that teaching is a curriculum process where content is produced and transformed continuously. Looking at curricular decision making in this way may help you develop a keener awareness of your role as a "curriculum maker." This last step in the SMARTER Planning process provides you with an opportunity to evaluate your curricular decisions

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▣ Scenario Revisited

As Mary Cochran began to plan using the SMARTER planning ideas, she focused first on her course in U.S. history. Pulling out the list of state standards, she thought about what was involved in helping students meet the standards and benchmarks. After digesting what the standards were really getting at, she began to develop a set of 10 critical questions that seemed to capture what she wanted all students to know. For each question, she jotted down subquestions and points to help her remember what was involved with each question.

Next, she began to work on organizing the content. She developed a graphic organizer or content map showing the units she wanted to create. Ms. Cochran quickly realized that the units that captured the critical ideas were not necessarily organized the same way as the textbook for the course. She made notes of the pages of the textbook that seemed to go with the name she had given to each unit. As she developed the map, she listed key ideas and outcomes that supported the course questions and the state benchmarks. At this point she realized that she had spent several hours developing her critical course questions and creating the map of the units in the course. Ms. Cochran knew that the questions were going to change as the summer went on and would probably change throughout the school year as well, but at least she had a running start at selecting what was critical.
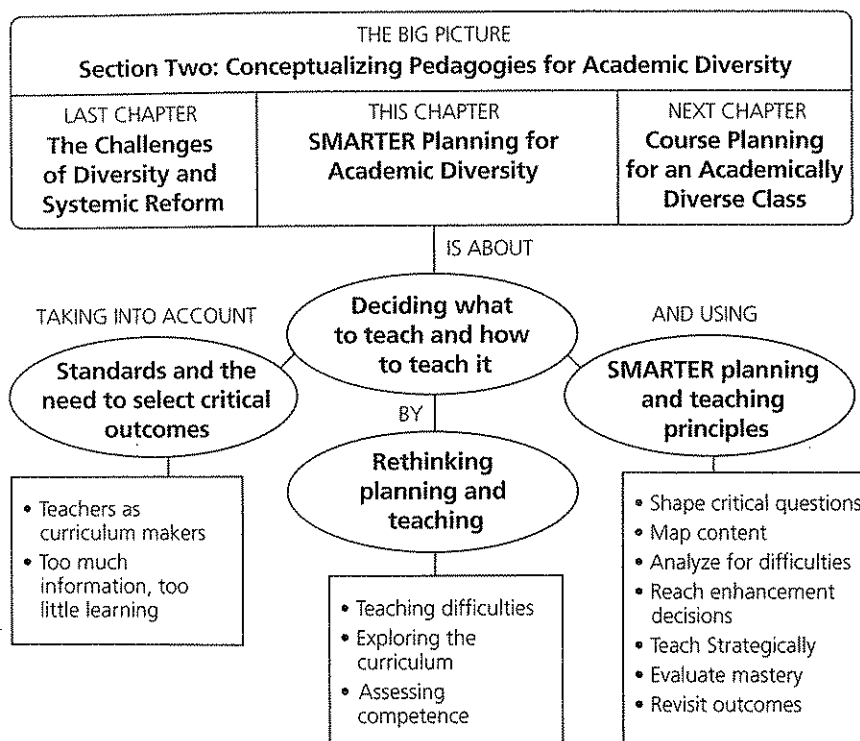
The next day, Ms. Cochran reviewed her course map. She made a few changes and notes. Then, she began to think about what would make this content difficult for students. Well,

she knew the organization of the information in the textbook was a problem. She realized that neither she nor the textbook did a very thorough job of identifying important concepts like federalism and nationalism. She also recalled that separation of powers and checks and balances were difficult ideas for some students to understand well. And, because one of her newly identified "critical outcomes" was that students understand how institutions of the U.S. government evolved and continue to evolve, she tried to think about how she could best teach that idea. As she thought about the concepts and ideas that would pose learning difficulties for many students, she realized that she was identifying themes that would resurface throughout the course. Ms. Cochran looked back at her list of critical questions and her course map to see if these ideas and concepts had all been included. She found that most of them had, but she took some time to refashion her questions and her map to reflect her developing ideas about her course.

Ms. Cochran paused to think about what a challenge this SMARTER planning process was! And what a lot of fun it was to think about the big ideas of her course and how they could best be taught. There was always so much to do during the school year that "big picture" planning simply wasn't on the agenda. Even now during the summer, a small part of her wanted to leave school matters behind and get caught up on her personal life. Now, though, this planning was prompting her to think about a lot of interesting issues, and she was grateful for this structured opportunity for making curriculum.

based on your knowledge and expertise about your students and their learning needs. Some have argued that teachers should adopt a "deliberationist perspective" in curriculum development and view the relationship between curriculum and instruction as dynamic rather than static (McCutcheon, 1988; Thornton, 1991). Such a perspective may lead you to become more reflective about what you are trying to teach (McCutcheon, 1988) and how, given your particular students, your particular classrooms, and your own past teaching experiences, you can best teach it.

FIGURE 3.14
Expanded Graphic
Organizer

THE BIG PICTURE
Section Two: Conceptualizing Pedagogies for Academic Diversity

| LAST CHAPTER **The Challenges of Diversity and Systemic Reform** | THIS CHAPTER **SMARTER Planning for Academic Diversity** | NEXT CHAPTER **Course Planning for an Academically Diverse Class** |

IS ABOUT

TAKING INTO ACCOUNT

Deciding what to teach and how to teach it

AND USING

Standards and the need to select critical outcomes

BY

SMARTER planning and teaching principles

Rethinking planning and teaching

- Teachers as curriculum makers
- Too much information, too little learning

- Teaching difficulties
- Exploring the curriculum
- Assessing competence

- Shape critical questions
- Map content
- Analyze for difficulties
- Reach enhancement decisions
- Teach Strategically
- Evaluate mastery
- Revisit outcomes

SUMMARY

Teachers play an instrumental role in constructing the curriculum that is taught in classrooms. Standards shape only the broad outlines of what students should learn; it is you, the teacher, who determines the specifics of the content to be covered and how learning will be structured and guided. Planning to structure and guide learning that includes all students requires that you carefully think through what you want to teach and how you plan to teach it, and that you do this thinking well before the school year begins.

Using the SMARTER reflective planning process can be a way to do this kind of planning effectively.

Learning may be thought of as a journey. Planning for including all students on that journey starts with a vision of the broader routes and destinations for the journey—the goals and means of reaching them for a course—and moves on to how the course can be organized into meaningful units and revealing experiences that take the form of "lessons learned." As a result, more time

needs to be spent on conceptualizing the big ideas of the course, how they are supported in units, and how students can be helped on a daily basis to understand them.

The curriculum planning process presented in this chapter can be a helpful tool for new and experienced teachers and can help to ensure effective instruction that will accommodate student differences. The course, unit, and lesson-planning routines to follow in Chapters 6, 7, and 8 incorporate the ideas introduced in this chapter. They include planning for instruction that is appropriate for high and low achievers, and that allows teachers to be clear in their own minds and in their plans, about what they want to teach, and what they want and expect students to learn.

MAKING CONNECTIONS:
Implementing SMARTER Planning

SMARTER planning principles are a very effective way to plan to teach. We recognize, however, that the principles and process can be a bit overwhelming, at first. Rather than trying to master and integrate all the principles into your planning at once, you might try to select one principle to implement. Then, as you become comfortable working with that one principle, you can try integrating more of the ideas into your planning and teaching. For example:

1. *Here are the big ideas to get you started:*
   Shape the Critical Questions
   Map the Critical Content
   Analyze for Learning Difficulties
   Reach Enhancement Decisions
   Teach Strategically
   Evaluate Mastery
   Revisit Outcomes

2. *Here's what you need to get started:*
   - A copy of the state standards or local guidelines for the course you will teach or are teaching
   - The textbook for your course

3. *Try this:*
Start by trying to write three of your 10 course questions. Reread the section of this chapter about shaping the critical questions. Remember that the questions should:

- Be broad questions.
- Identify ways in which students should understand the information to be learned.
- Help students identify the critical concepts or ideas to be learned.
- Help students think about the content and how the content fits into other contexts.
- Help students organize information that supports the critical concepts or ideas to be learned.
- Include expectations for learning how to learn the content. If how a student is to learn the content is important, then that should be reflected in the critical questions.
- Lead students to do well on outcome evaluations.

4. *Evaluate your work:*
   - Compare your questions to the state standards for your area. Your questions should provide an umbrella for addressing about a third of your state standards.
   - Compare your questions to unit or chapter headings in your textbook. Does the textbook use meaningful ideas to frame units and chapters?
   - Ask a colleague for feedback on your questions or get together with a fellow teacher and discuss whether your questions capture the big ideas of the course.

5. *Next steps:*
Select *one* of your critical outcome questions. In the chart below, enter the question in the space to the right of "Shape the Critical Questions." Then, for each step of the SMARTER process, record one item in the column on the right. For example, list one topic that would be included in a map of your course, one learning difficulty students might experience trying to answer your course outcome question, one way you might enhance instruction to help students with that learning difficulty, one way you might teach more strategically, one way you would evaluate whether your instruction helped students learn the critical outcome. Under "Revisit Outcomes," you might think back on your experiences in a classroom to describe any instances where not all students learned. Was the critical outcome really critical? How might it have been retaught? Was it retaught?

Shape the Critical Questions	
Map the Critical Content	
Analyze for Learning Difficulties	
Reach Enhancement Decisions	
Teach Strategically	
Evaluate Mastery	
Revisit Outcomes	

SUGGESTED READINGS

Erickson, F., & Shultz, J. (1992). Students' experience of the curriculum. In P. W. Jackson (Ed.). *Handbook of research on curriculum* (pp. 789–829). New York: Macmillan. Includes a telling metaphor about delivery of the curriculum to students, likening it to school lunch, prepackaged and, on occasion, force fed, chopped up into small, predigested bits. Provides perspectives to prompt reflection about curriculum and the role of teachers in developing and delivering it.

Glatthorn, A. A., & Jailall, J. (2000). Curriculum for the new millennium. In R. S. Brandt (Ed.), *Education in a new era* (pp. 97–121). Alexandria, VA: Association for Supervision and Curriculum Development. This essay provides a thoughtful and succinct summary of curriculum movements and developments over the last 50 years in the United States.

Wiggins, G., & McTighe, J. (1998). *Understanding by design.* Alexandria, VA: Association for Supervision and Curriculum Development.

WEB SITES

http://www.cde.ca.gov/board California State Board of Education. This page lists all the content areas for which the state has established standards. When you click on specific content areas you get an overview of California Frameworks, and then you get specific grade-level standards.

http://standards.nctm.org National Council of Teachers of Mathematics Curriculum and Evaluation Standards for School Mathematics

http://www.mcrel.org/standards-benchmarks Content Knowledge–the McREL Standards Database. This is a compendium of standards and benchmarks for K–12.

http://edstandards.org/standards.html Wappingers Central School District—Developing Education Standards. Includes links to standards by state and subject area.

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