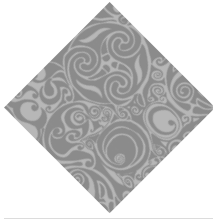




**P A R T**

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**PERSPECTIVES FOR CLASSROOM PRACTICE:  
THEORY AND CULTURE**



# THEORETICAL CONSIDERATIONS

The director of the United States Census Bureau, Robert Groves, was asked, “What do you think will be the most surprising information the [2010] Census will reveal?” This was his reply:

What’s going to . . . surprise us all is the dispersion of new ethnic groups all over the country. Immigration doesn’t just come to the East Coast or to the West Coast the way it did in earlier generations. It’s everywhere now.” (“10 Questions,” 2010)

Teachers will undoubtedly not find this quite so surprising. A year earlier, the *New York Times* wrote:

Students learning English, labeled as English Language Learners by education officials, are among the nation’s fastest-growing group of students. In recent years these students have flooded small towns and suburban school districts in states like Arkansas, Georgia and North Carolina, which have little experience with immigrants. (“New to English,” 2009)

Indeed, school districts in every state in the nation face the challenge of developing programs and services to help these students learn English, as well as math, science, social studies, and language arts. Schools and teachers are held accountable to demonstrate yearly progress for all students, including the English language learners (ELLs). The challenge affects teachers of every grade level and subject area. The challenge is hard, and stakes are high—each year they seem to get harder and higher.

## WHY CONTENT TEACHERS CAN HELP

Learning content is difficult for ELLs for reasons discussed later in this chapter and in Chapter 2. Teachers who are aware of these challenges and use techniques to make their content material more learnable can make a real difference in the academic lives of the ELLs in their classrooms by helping them begin to experience success as learners. Content teachers can help ELLs develop an I-can-do-it attitude toward learning that promotes their self-confidence and increases their motivation to learn. Thinking you can do it goes a long way toward academic success, and success breeds more success.

## HOW CONTENT TEACHERS CAN HELP

Content teachers can help by using instructional strategies that increase the comprehensibility of the content they teach and by choosing assignment and assessment strategies that separate content knowledge from English language knowledge. These are the strategies presented in this text. However, to choose and use the strategies that work best for you, your content, and your students, you will first need a set of basic theoretical understandings.

## THEORETICAL FOUNDATIONS

Good teachers make good choices, and good choices are grounded in theory. The theories, hypotheses, and principles of these six theorists inform the strategies presented in this text:

- Cummins's differentiation between social and academic language
- Krashen's separate concepts of the affective filter and comprehensible input
- Vygotsky's zone of proximal development
- Swain's ideas about meaningful interaction
- Brown's principles of language teaching and language learning
- Bloom's taxonomy classifying levels of cognitive challenge

The sections that follow examine each of these important contributions. A final section shows how together they form a cohesive support system for teaching content to ELLs.

### **Cummins: Differentiation of Social and Academic Language**

Jim Cummins (1984) contributed the concept that *academic language*, the language of the classroom, requires more cognitively demanding language skills than *social language*, the language of the outside world. This differentiation forms a foundation for understanding why the process and product of content instruction are challenging for ELLs. The concept of academic language underlies virtually every strategy in this text and deserves to be examined in detail.

#### **Understanding Social Language**

Language is a social construct: The purpose of language is communication. In a process closely resembling first-language acquisition, children learning English as a second language communicate to make friends with other children and to participate in the youth culture of sports, music, movies, TV, video games, Internet, fads, and fashion. They develop the social language skills of everyday activities through a process of natural acquisition by becoming immersed in the English-language-rich environments surrounding these activities. They learn to retell events, describe activities, express personal opinions, and maintain conversation. Children learning English develop these social language skills with an apparent ease that often awes adult learners. Because these children are so immersed in an English-speaking environment, it takes only six months to two years for them to develop this type of language competence (Cummins, 1981).

#### **Understanding Academic Language**

Schools have traditionally judged the proficiency level of ELLs by assessing their oral language communication skills, an often highly misleading indicator. Students can function at high levels in face-to-face social interaction and yet lack critical language skills for learning academic content.

Unlike social language, the language of the classroom requires students to use language that is conceptually demanding and cognitively complex. Academic assignments require students to use different forms of language to do the following:

define	describe	explain
list	order	classify
discuss	compare	contrast
analyze	explain	infer
integrate	predict	deduce
evaluate	justify	defend

The challenge inherent in these uses of academic language for ELLs is increased by the need to apply them in all modalities of communication: speaking, listening, reading,

Social Language	Academic Language
<p>Tell me about the girls in your gymnastics class.            Why do you want to do that?            Is there an easier way to do this?</p> <p>What do you think is going to happen? Why?</p> <p>Who's your favorite teacher? Why?</p>	<p>Compare and contrast the main characters in the book.            Explain what you believe to be the most effective choice.            Can you propose and support an alternative technique to facilitate this procedure?</p> <p>Formulate a hypothesis that predicts the most probable outcome. Explain your reasoning.</p> <p>Which of the characters do you find the most interesting? Justify and explain you choice.</p>

**Figure 1.1** Comparing Social and Academic Language

and writing. The examples in Figure 1.1, which contrast social and academic language usage, illustrate the distinct differences in the choice of words, the way the words are used, and the type of thought processing the two types of usage require.

The complex skills associated with academic language are situation specific, cognitively challenging, and context reduced. Academic language is *situation specific* because it is used exclusively in a classroom environment and must be learned. Students cannot acquire it naturally through immersion in activities of everyday life. With such limited exposure, it takes from five to seven years to reach full development (Cummins, 1981). More recent research has shown that this type of language competence can take up to 10 years to develop in language learners, depending on the amount of formal schooling students have received in their first language (Thomas & Collier, 1995).

Academic language is *cognitively challenging* because it deals largely with abstract concepts. It is beyond the realm of the here-and-now—those concrete personal experiences and activities that make social language easier to understand.

And finally, it is *context reduced* because oral and written academic tasks frequently lack the environmental clues to meaning that facilitate comprehension of social language.

### **Making Academic Language More Comprehensible**

Cummins next addressed the issue of how to make the cognitive challenge of classroom oral and written academic language more comprehensible for ELLs. Embedding academic language in context, he found, provides the support of environmental clues to make cognitively demanding content easier for ELLs to understand. This concept is reminiscent of the adage “A picture is worth a thousand words.”

Figure 1.2 shows the graphic framework Cummins created to show what makes language easier or more difficult for these students. Difficulty is based on the relationship between two factors: the degree of *cognitive demand* and the amount of available *contextual support*.

The cognitive challenge of oral or written tasks is represented in the framework as undemanding (easy) in the two quadrants across the top of Cummins’s chart or demanding (difficult) in the two lower quadrants. *Cognitively undemanding* tasks are either largely social or simply academically easy; *cognitively demanding* tasks are academically difficult, requiring higher levels of thought processing and language skills.

Contextual support, the second factor in Cummins’s framework, assists comprehension by providing clues to the meanings of words. The more that spoken and written words are supported, or embedded, in context, the easier they are to understand. Contextual support for oral tasks comes from supplementing spoken language with facial expressions, gestures, body language, demonstration, and graphic and visual representation. Contextual support for written tasks comes from supplementing text with pictures,

<b>I</b> Cognitively Undemanding + Context Embedded	<b>II</b> Cognitively Undemanding + Context Reduced
<b>III</b> Cognitively Demanding + Context Embedded	<b>IV</b> Cognitively Demanding + Context Reduced

**Figure I.2** Cummins' Framework for Evaluating Language Demand in Content Activities (Modified Format)

Cummins, J. (1984). *Bilingualism and Special Education: Issues in Assessment and Pedogogy*. San Francisco, CA: College-Hill Press. Used with permission.

graphs, charts, tables, and other textbook aids. Tasks—both oral and written—with a high level of contextual support are *context embedded*. Tasks in which students must derive meaning solely from the spoken or written words themselves are *context reduced*.

The two quadrants on the left side of Cummins's chart represent tasks that are highly embedded and contextually supported. Tasks in the two quadrants on the right side are those that are context reduced. Combining the two elements of cognitive challenge and contextual support, the quadrants move in difficulty from I to IV. ELLs will generally find Quadrant I tasks easy because they are low in cognitive demand and high in contextual support. Quadrant IV tasks, at the other end of the spectrum, will be difficult for ELLs because they are academically demanding and lack contextual support.

Examples of tasks in each of the four quadrants, as shown in Figure 1.3, help to clarify Cummins's chart. Face-to-face conversation is classified as a Quadrant I task because the

<b>I</b> Cognitively Undemanding + Context Embedded  <b>Example</b> Engaging in face-to-face social conversation with peers	<b>II</b> Cognitively Undemanding + Context Reduced  <b>Example</b> Engaging in social conversation on the telephone
<b>III</b> Cognitively Demanding + Context Embedded  <b>Example</b> Solving math word problems using manipulatives and/or pictures	<b>IV</b> Cognitively Demanding + Context Reduced  <b>Example</b> Solving math word problems without manipulatives or pictures

**Figure I.3** Cummins' Framework with Examples of Tasks for Each Quadrant

Cummins, J. (1984). *Bilingualism and Special Education: Issues in Assessment and Pedogogy*. San Francisco, CA: College-Hill Press. Used with permission.

cognitive demand is low (most conversation is purely social) and the contextual support is high (observing the speaker's lips, facial expressions, and body language). The task moves to Quadrant II when the same conversation takes place over the telephone. The task is still social and, thus, cognitively undemanding, but here the listener loses the speaker's contextual support and must rely completely on auditory input for comprehension.

The tasks illustrating Quadrants III and IV are similar. On the lower half of the chart, the tasks are cognitively challenging. ELLs (and other students) will find mathematical word problems that offer the contextual support of manipulatives, graphics, and/or pictures easier to solve than problems without these environmental clues. Again, the level of difficulty changes in accordance with the degree to which words are embedded in context.

Not every task can be neatly placed in a quadrant. Variables within a task or within a student's prior knowledge or experience can affect its placement on the chart. Solving simple computational problems in math, for example, would normally be considered a Quadrant III task. However, it would move to Quadrant IV if a student's native language used a different system of notation for writing numerals.

An even more complex example involves students' participation in physical education classes. Demonstrating how to play a sports game is clearly a Quadrant I task. However, it would fall into Quadrant II if the rules of play were explained orally with no accompanying demonstration. Reading and discussing complex rules and regulations of play or the history of a sport would move these tasks into the cognitively demanding quadrants. And whether they fell in Quadrant III or Quadrant IV would depend upon the amount of available contextual support.

### **Using Cummins' Principles**

Strategies to embed academic tasks in context—to move them from Quadrant IV to Quadrant III—are commonly called *scaffolded instruction*, or simply *scaffolding*. The term derives from the construction trades, in which temporary external structures, *scaffolds*, provide support for workers as they construct a building. These scaffolds allow access to parts of the construction that would otherwise be impossible to reach. So, too, it is with scaffolded instruction. In academics, scaffolds provide ELLs with the support they need to learn content while they are developing their English language skills. In ways figuratively similar to those of construction, these scaffolding strategies allow language learners better access to content material and are then progressively dismantled and discarded as they are no longer needed for support.

Scaffolding strategies facilitate comprehension for ELLs by moving academic tasks from Cummins's Quadrant IV to Quadrant III. For example, consider the Quadrant IV task of reading about materials that conduct electricity. Science teachers can shift this to Quadrant III by using the direct inquiry process. In class, students test materials such as plastics, woods, metals, and glass in a closed-circuit battery experiment to discover which materials are good conductors of electricity and which are not. Manipulating real-life objects turns abstract concepts into concrete academic tasks. It is a scaffolding strategy that allows students to formulate their own conclusions; real learning is taking place, independent of English language knowledge.

This example also illustrates the goal of maintaining a high level of cognitive challenge for ELLs. Direct inquiry learning of this type does not water down the curriculum. Embedding content in context maintains high levels of cognitive demand at the same time that it facilitates comprehension of important academic concepts.

Learning tasks in content classrooms frequently fall into Quadrant IV because they are cognitively demanding and context reduced. ELLs (and struggling readers, as well) typically find these tasks overwhelming and frustrating. Teachers can use the dual perspectives of cognitive challenge and contextual support to evaluate the difficulty of class instruction, activities, assignments, and assessments for their ELLs. This approach offers teachers a valuable tool to assist in selecting, planning, and using appropriate strategies to scaffold content learning, moving it from Quadrant IV to Quadrant III.

**Krashen: The Affective Filter**

As part of his five-hypothesis monitor model of second language acquisition, Stephen Krashen (1982) proposed the existence of an emotional filter that influences how much actual learning takes place in relation to input. The strength of the filter itself is determined by affective factors of learner anxiety, self-confidence, and motivation.

The affective filter may be conceived of as an emotional wall that blocks input from reaching the brain. Students who experience high learner anxiety, low self-confidence, and low motivation are said to have high affective filters that prevent them from successfully processing input. At the other extreme are learners with low affective filters who, with little anxiety, good self-confidence, and high motivation, will learn much more from the same amount of input.

**Using the Affective Filter Concept**

Content teachers who use the strategies in this text give their ELLs the opportunity to experience academic success. With every small success comes an increase in a student's self-confidence. The greater the gain in self-confidence, the more motivated the student becomes to continue learning. Increased self-confidence and motivation lower the affective filter and allow more academic input to be processed. The rewards of being a good learner are self-perpetuating.

**Krashen: The Comprehensible Input Hypothesis**

Krashen's second hypothesis that impacts content teaching deals with the concept of comprehensible input. He represented his idea in the formula  $i + 1$ , in which  $i$  is input—meaningful input based on real communication that is immediately comprehensible to the language learner—and  $+ 1$  is the next level at which language is advanced just enough so that the learner is challenged by it but is able to learn it. This is the teachable/learnable area—the area between a student's actual and potential language development.

Extending the formula by logical implication, it is apparent that  $i + 2$  would present too much challenge to be learnable and  $i + 0$  would present no challenge toward more advanced levels of language development at all. To successfully advance language learning, then, comprehensible language input ideally should be  $i + 1$ .

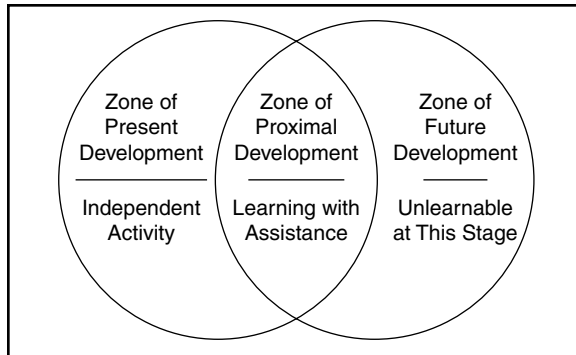
Krashen's concept of language development can be compared to the experience of tennis players who, wanting to improve their skills, arrange games with players whose skill level is slightly more advanced than their own. The challenge motivates the less skilled players, and the effort is rewarding. Playing only with those whose skills are equal offers little input that might lead to improvement; playing with those whose skills are substantially higher leads to feelings of frustration and defeat. As with language learning, tennis skills develop best in an environment of  $i + 1$ .

**Using  $i + 1$** 

Teachers can facilitate comprehension for ELLs by incorporating strategies that expand the area between students' actual and potential levels of language ability. Scaffolding strategies that embed language in context use the  $i + 1$  concept to allow students to advance to the next level of achievement.

**Vygotsky: Zone of Proximal Development**

Lev Vygotsky (1978) contributed the concept of the zone of proximal development (ZPD), which he defines as “the distance between [a student's] actual developmental level as determined by independent problem solving, and the level of potential development as determined through problem solving under adult guidance or in collaboration with



**Figure 1.4** Understanding Vygotsky's Zone of Proximal Development

more capable peers” (p. 87). Figure 1.4 shows the three zones of possible development: the first, in which a learner can solve problems independently; the middle, in which the learner can solve them with assistance; and the third, in which the learner is unable to solve them at all because they are too advanced. Within the middle zone, according to Vygotsky, learning occurs only when teachers offer opportunities for students to actively interact with their academic environment.

Although Vygotsky's ZPD and Krashen's  $i + 1$  appear similar in content, the two differ in focus. Krashen applied his ideas narrowly to second-language skill development and focused on the need to make language input comprehensible. Vygotsky applied his ideas more broadly to learning in general and focused on the importance of meaningful interaction with others who are more advanced. Both concepts are useful for content teachers with ELLs in their classrooms.

#### **Using the Zone of Proximal Development**

Applying the ZPD to the content classroom addresses process issues rather than product issues. Students learn most effectively by becoming active participants in their own learning through interaction in the classroom. Students will progress to their fullest potential when teachers scaffold instruction with activity and assignment strategies that encourage working with teachers and peers, individually and in groups, in an atmosphere of guidance and collaboration.

#### **Swain: Meaningful Output**

Merrill Swain's 1985 concept of meaningful output supports Vygotsky's ZPD and enriches Krashen's comprehensible input. Swain views meaningful output as central to the process of language acquisition because it provides learners with opportunities to work with developing language in contextualized, meaningful situations. Swain believes that “it is not input per se that is important to second language acquisition but input that occurs in interaction where meaning is negotiated” (1985, p. 246).

The concept of *negotiated meaning* comes from the way people communicate with each other. To clarify meaning in conversation, native speakers often participate in a series of back-and-forth exchanges that lead to more complete understanding. However, when native and *nonnative* speakers converse, they engage in a series of trial-and-error exchanges in which language becomes successively modified until both parties understand the communication. Nonnative speakers receive input from their conversational partners. If words are not understood, language learners request more comprehensible input by asking for repetition or clarification, causing the native speaker to paraphrase or offer environmental clues—for example, gestures, facial expressions, drawings—to make meaning clearer. This is how meaning is negotiated through interaction.

#### **Using Meaningful Output**

Swain's concept of meaningful output has direct bearing on learning in content classrooms. The concept highlights the importance of small group interaction in long-term



retention of both language and conceptual knowledge. Content teachers can choose strategies that encourage students to negotiate meaning through paired or small group discussion. ELLs, in meaningful academic conversation with their peers, receive input and feedback that allow them to compare their language use (vocabulary, pronunciation, structures) and their conceptual understandings with those of their native-speaking peers. Manipulating language in meaningful classroom interaction clarifies input and makes it more comprehensible for ELLs.

### **Brown: Principles of Language Teaching and Learning**

Of the 12 language teaching and learning principles upon which H. Douglas Brown (2007) based his entire methodology, five have direct bearing on teaching content to ELLs. In some you will recognize the tribute he pays to the theorists discussed in the preceding sections.

Principle 2, *meaningful learning*, is the conceptual opposite of rote learning. Unlike the isolated, memorized facts of rote learning, meaningful learning promotes long-term retention of knowledge. Brown says that learning can be made meaningful for ELLs by appealing to their interests, by associating new topics and concepts with their existing knowledge and experience, by making abstract learning more concrete, and by choosing activities and assignments that go beyond drill and memorization (Brown, 2007, p. 66).

Principle 4, the *intrinsic motivation principle*, says that all human beings work, act, or behave in anticipation of a reward, but “the most powerful rewards are those that are intrinsically motivated within the learner” (Brown, 2007, p. 68). When one’s own needs, wants, and/or desires are the source of behavior, the behavior itself becomes self-rewarding. Tangible rewards of praise and grades motivate students, but more long-term learning takes place when students are motivated to learn because they perceive classroom activities and assignments to be “fun, interesting, useful, or challenging” (Brown, 2007, p. 68).

Principle 5, *strategic investment*, says that successful learning largely depends on the learner developing a set of strategies for understanding and producing the language involved in content learning. The greater the variety of strategies a learner can develop for processing information, the greater the possibility of academic success. Because students vary in their abilities to use individual strategies, teachers need to create opportunities to unlock the “secrets” of learning as a means of promoting academic success among students.

Principle 8, *willingness to communicate*, combines the closely related concepts of self-confidence and risk-taking. When language learners develop an I-can-do-it attitude, they will be more willing to risk using language “for meaningful purposes, to ask questions, and to assert themselves” (Brown, 2007, p. 73). Most educational research has shown that willingness to communicate leads to increased long-term retention and intrinsic motivation. This concept is particularly interesting in light of certain academic cultures that instead encourage correctness and discourage even educated guesses.

Teachers can build student confidence and encourage risk-taking behavior by using verbal and nonverbal approval and encouragement and by assigning tasks in sequence from easier to more difficult. Early successes motivate students to deal with successively more challenging tasks. In addition, students will be more willing to take language risks when the classroom atmosphere “encourages students to try out language [and] to venture a response” (Brown, 2007, p. 74). Teachers need to reward students’ attempts with a response that encourages future attempts. ELLs who feel assured that language errors are a normal part of language learning will ultimately be more successful learners.

Principle 9, the *language–culture connection*, presents the concept that learning a new language involves learning a new culture: all the customs, beliefs, and values that deal with ways of thinking, feeling, and acting. Content teachers who are aware that culture determines expectations of “proper” classroom behavior will avoid misinterpretation by recognizing that the way ELLs act in class may be rooted in strong cultural components.

<b>Meaningful Learning</b>	Make learning meaningful and interesting to promote long-term retention of knowledge
<b>Intrinsic Motivation</b>	Motivate student learning by making it interesting, useful, challenging, and fun
<b>Strategic Investment</b>	Teach learners <i>how</i> to learn by actively teaching a variety of learning strategies
<b>Willingness to Communicate</b>	Encourage communication by building student self-confidence, by supporting students' efforts to use language in meaningful ways, and by fostering students' understanding that errors are a normal part of the learning process
<b>Language–Culture Connection</b>	Recognize that learning a new language involves learning a new culture and new ways of thinking, feeling, and acting

**Figure 1.5** Brown's Principles at a Glance

Indeed, culture can even lead ELLs to confusion about particular concepts or topics. Brown suggests that teachers “discuss cross-cultural differences with [their] students . . . [and] make explicit to [the] students what [the teachers] may take for granted in [their] own culture” (Brown, 2007, p. 75).

### Using Brown's Principles

Brown's principles, shown in summary form in Figure 1.5, form a humanistic foundation for teaching language and, by extension, for teaching content. They serve as a guide to understanding, evaluating, and selecting sets of strategies to make the content you teach more accessible and enjoyable for the ELLs in your classroom.

### Bloom: Taxonomy

Benjamin Bloom (Bloom & Krathwohl, 1977) examined teacher question patterns and devised a system to categorize them according to the degree of cognitive challenge they posed. He identified six levels of question types in his taxonomy and termed them *knowledge*, *comprehension*, *application*, *analysis*, *synthesis*, and *evaluation*. Questions at the knowledge and comprehension levels are simple and concrete, requiring only rote learning. Increasing in cognitive challenge, questions designated as application, analysis, synthesis, and evaluation are more abstract and increasingly complex. These are the questions that encourage critical thinking.

At the lower levels of cognitive challenge, *knowledge questions* demand only isolated, memorized facts as answers, testing recall and recognition of information. Questions of this type often start with *who*, *what*, *when*, and *where*, as in “Who wrote the Declaration of Independence?” *Comprehension questions* ask for short explanations or definitions of basic meaning in the students' own words, as in “What does each part of the Declaration of Independence say?” *Application questions* require students to apply known information to new situations, using rules and principles to produce a result, as in the question “How is the Constitution used today?”

Moving up the ladder of cognitive challenge, *analysis questions* focus on individual elements. They ask students to consider the relationship of the separate parts to each other and to the whole, as in “What qualities did the heroes of the War of Independence have in common? How were they different?” *Synthesis questions* require putting elements together in a novel way, as in “How might life have been different for the colonists if they had lost the War of Independence?” *Evaluation questions*, the most cognitively challenging level, ask students to make, justify, and defend judgments based on the information under consideration. In this category are questions such as this: “Benjamin Franklin was one of the most important people in early American history, but he went to school for only two years. How can you explain this? Could this happen today? Why or why not?” Figure 1.6 summarizes types of thought processing, associated verbs, and additional questions for each of the six levels of cognitive demand.

Level	What Students Are Asked to Do	Useful Verbs	Sample Questions
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>• memorize</li> <li>• recognize</li> <li>• recall</li> <li>• remember</li> <li>• identify</li> </ul>	tell state locate relate list find name choose define label select match	Who, what, when where, how? What happened after _____? How many _____? Which is true or false? Which one shows _____?
<b>Comprehension</b>	<ul style="list-style-type: none"> <li>• interpret</li> <li>• paraphrase</li> <li>• organize facts</li> <li>• classify</li> <li>• condense</li> <li>• compare</li> <li>• contrast</li> <li>• summarize</li> </ul>	explain restate outline compare describe distinguish convert estimate rewrite arrange	What was the main idea? Can you state this in your own words? What do you think is meant by _____? Does X mean the same as Y? What are the differences between _____? Which statements support _____? What information does the graph (table) give?
<b>Application</b>	<ul style="list-style-type: none"> <li>• solve problems</li> <li>• use information to produce a result</li> <li>• extend what is learned to an unknown</li> <li>• make predictions</li> <li>• apply facts, rules, principles</li> </ul>	apply interpret solve use demonstrate dramatize change compute calculate construct modify predict	How is X an example of _____? Why is _____ significant? How is X related to _____? How might you group these _____? What factors would change if _____? What would happen if _____?
<b>Analysis</b>	<ul style="list-style-type: none"> <li>• identify component parts of a whole</li> <li>• examine relationship of parts to whole</li> <li>• understand underlying structures</li> <li>• find patterns</li> <li>• draw conclusions</li> </ul>	analyze separate probe categorize connect arrange	What are the elements of _____? How would you classify _____ according to _____? How does _____ affect the whole? What are some different ways to categorize _____?

**Figure 1.6** Bloom's Taxonomy (continued)

Level	What Students Are Asked to Do	Useful Verbs	Sample Questions
	<ul style="list-style-type: none"> <li>• distinguish between fact and inference</li> <li>• recognize hidden meaning</li> </ul>	divide dissect deconstruct group compare infer	Why did _____ changes occur? What were the motives behind _____? What assumptions are part of _____? What is the implication of _____?
<b>Synthesis</b>	<ul style="list-style-type: none"> <li>• combine ideas or elements to form a new whole</li> <li>• generalize from given facts</li> <li>• relate knowledge from separate areas</li> <li>• predict, draw conclusions</li> </ul>	combine integrate create design devise invent develop compose modify rearrange reorganize generate propose formulate hypothesize	What if _____? What would you predict from _____? How would you design a _____ to _____? What might happen if you combined _____? What solutions might you offer for _____? What are some unusual ways to use _____? What are some alternative ways to _____?
<b>Evaluation</b>	<ul style="list-style-type: none"> <li>• make value decisions about issues and ideas</li> <li>• compare and discriminate information</li> <li>• verify value of evidence</li> <li>• recognize subjectivity</li> <li>• develop opinions, judgments, and decisions</li> <li>• make and justify choices</li> </ul>	assess appraise evaluate decide rank rate recommend support defend convince judge discriminate prioritize deduce conclude criticize critique	What is your position on _____? Why? Is there a better solution for _____? How would you have handled _____? What evidence supports your position on _____? Do you believe _____ was a positive or negative influence? Why? What criteria are you using to evaluate _____?

**Figure 1.6** Bloom's Taxonomy

**Using Bloom's Taxonomy**

It is discouraging to note that the great majority of teachers' oral and written questions fall into the two lowest levels of Bloom's taxonomy. Developing an awareness of question types focuses teacher attention on the levels of cognitive demand in teacher-directed discussions, classroom activities and assignments, and teacher-made quizzes and tests. An important objective of the strategies in this text is to maintain a high level of critical thinking for ELLs (actually, for all students) while simultaneously facilitating their comprehension.

## APPLYING THE THEORIES AND PRINCIPLES

The theories and principles presented in this chapter individually contribute to the understanding of teaching content to ELLs. However, to be of real value, they must be combined in a way that addresses this central question:

How can content teachers use these theories and principles to promote more effective learning for the ELLs in their classrooms?

The answer lies in distilling the essential elements of these separate theories and principles into a practical application that can guide all aspects of instruction and assessment of ELLs in content classrooms. The *12 Guidelines for Practice* are the outcome of this process.

### THEORY TO APPLICATION: 12 GUIDELINES FOR PRACTICE

1. Use scaffolding strategies with ELLs to facilitate comprehension of the specialized academic language of content classrooms.
  2. Use scaffolding strategies to challenge ELLs to advance beyond their present state of independent activity, into the areas of potential learning in which content is learnable with the assistance of teachers and peers.
  3. Use scaffolding strategies that embed the oral and written language of content material in a context-rich environment to facilitate learning for ELLs.
  4. Use scaffolding strategies that maintain a high level of cognitive challenge, but lower the language demand by embedding it in context.
  5. Maintain a high level of cognitive challenge for ELLs by selecting content material that is meaningful, interesting, and relevant.
  6. Actively teach learning strategies to give students a "menu" of ways to process and learn new information.
  7. Be aware that cultural differences may affect ELLs' models of classroom behavior and interpretation of specific content material.
  8. Activate and develop background knowledge to make new content meaningful and to form a foundation upon which new learning can be built.
  9. Provide opportunities for ELLs to negotiate conceptual understandings and to explore language usage through classroom interaction.
  10. Lower learner anxiety in the classroom to create students who are more willing to participate in class, to become risk takers in the learning process, and ultimately to become more successful learners.
  11. Use scaffolding strategies to assess content knowledge separately from English language knowledge so students can show what they know.
  12. Provide opportunities for students to experience success in the classroom: Success in learning promotes more success by increasing learner motivation, interest, and self-confidence.
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Together, these theory-based guidelines form the cornerstone of effective instruction and assessment of ELLs in content classrooms. They also serve as a solid foundation upon which the strategies in each chapter of this text are based. Let these guidelines inform your choices of strategies to maximize your ELLs' academic achievements.

Scaffolding strategies offer rewards to students that go beyond just learning the content being taught. These strategies offer students the beginnings of academic success, bringing with it renewed interest and motivation to learn. Students' feelings of self-confidence as learners will grow, and they will begin to view school as a place of positive rewards.

Scaffolding strategies give you, the content teacher, a range and variety of options to help you make better instructional decisions. You will see that using these techniques, ideas, and activities in your classroom makes a real difference in the academic lives of your ELLs. And like your students, you will derive greater satisfaction from your teaching. You will enjoy the renewed confidence that comes with being an even more accomplished professional.

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## QUESTIONS FOR DISCUSSION

1. Locate statistics in your state and/or district for the number of ELLs enrolled in K–12 schools over the last five years. Compare that to the total enrollment in the same time period. What are the enrollment projections for the next five years?
2. Using Cummins' quadrants, how would you classify each of the following tasks? The final three tasks can be placed in more than one quadrant; for those, justify and explain your placement.
  - a. Listening to a tape-recorded presentation about caring for pets
  - b. Listening to a presentation about pet animals that includes pictures and video
  - c. Listening to a lecture on an unfamiliar topic
  - d. Participating in a conversation with friends about politics or economics
  - e. Understanding written text through pictures and graphics
  - f. Understanding written text through small group discussion
  - g. Reading Shakespeare's *Romeo and Juliet* in its original format
  - h. Reading the illustrated (comic book) version of Shakespeare's *Romeo and Juliet*
  - i. Writing research reports on assigned topics in social studies
  - j. Reading a list of required school supplies
  - k. Solving math problems
  - l. Doing a science experiment
3. Observe a content class and keep a written log of the questions the teacher asks. Classify them according to Bloom's taxonomy. What percentage of the total is made up of questions classified as knowledge and comprehension? Make up some additional higher level questions that the teacher could have used in this lesson.
4. If you have ever studied a foreign language, how successful were you in learning it? Can you explain your success or lack of it based on these theories, principles, and guidelines?

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## REFERENCES AND RESOURCES

- Bloom, B. (Ed.). (1956). *Taxonomy of educational objectives: Handbook I—Cognitive domain*. White Plains, NY: Addison Wesley.
- Bloom, B., & Krathwohl, D. (1977). *Taxonomy of educational objectives: Handbook 1—Cognitive domain*. San Diego, CA: College-Hill Press.

- Brown, H. D. (2007). *Teaching by principles: An interactive approach to language pedagogy* (3rd ed.). White Plains, NY: Pearson Education.
- Cummins, J. (1981). The role of primary language development in promoting educational success for language minority students. In California Department of Education (Ed.), *Schooling and language minority students: A theoretical framework* (pp. 3–49). Los Angeles: Evaluation, Dissemination and Assessment Center, California State University.
- Cummins, J. (1984). *Bilingualism and special education: Issues in assessment pedagogy*. San Francisco: College-Hill Press.
- Krashen, S. (1982). *Principles and practice in second language acquisition*. Oxford, England: Pergamon Press.
- Krashen, S. (1985). *The input hypothesis: Issues and implications*. London: Longman.
- New to English. (2009, March 13). *New York Times*. Retrieved May 6, 2010, from <http://www.nytimes.com/interactive/2009/03/13/us/ELL-students.html>
- Richard-Amato, P. A., & Snow, M. A. (Eds.). (2005). *Academic success for English language learners: Strategies for K–12 mainstream teachers*. White Plains, NY: Pearson Education.
- Swain, M. (1985). Communicative competence: Some roles of comprehensible input and comprehensible output in its development. In S. Gass & C. Madden (Eds.), *Input in second language acquisition* (pp. 235–253). Rowley, MA: Newbury House.
- 10 Questions. (2010, April 5). *Time*, 175(13), 2.
- Thomas, W. P., & Collier, V. P. (1995). Language minority student achievement and program effectiveness. *California Association for Bilingual Education Newsletter*, 17(5), 19, 24.
- Vygotsky, L. (1978). *Mind in society: Development of higher psychological processes*. Cambridge, MA: Harvard University Press.