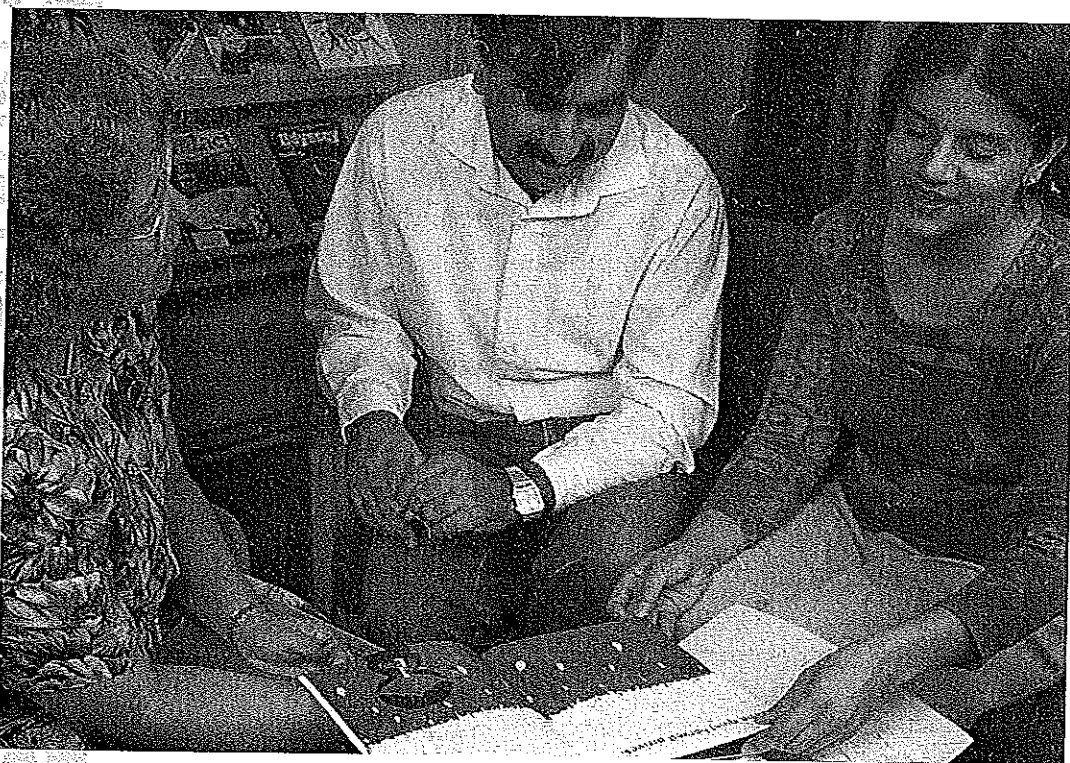


# 5

## Pedagogy for English Learners

*Parents provide vital  
resources for culturally  
responsive teaching.*



### expectations

Each prospective teacher . . .

- Knows and applies pedagogical theories, principles, and instructional practices for comprehensive instruction of English learners. *(Element 7.1 of the California Teaching Performance Expectations)*
- Uses English that extends students' current levels of development yet is still comprehensible. *(Element 7.8 of the California Teaching Performance Expectations)*
- Uses questioning strategies that model or represent familiar grammatical constructions. *(Element 7.13 of the California Teaching Performance Expectations)*
- Makes learning strategies explicit. *(Element 7.14 of the California Teaching Performance Expectations. Reprinted by permission of the California Commission on Teacher Credentialing.)*

Teachers cannot teach what they do not know. To teach with integrity, teachers must be skilled in their craft by having expertise in the necessary aspects of their work. What is pedagogy for English learners—what do teachers of English learners need to *know* and *do* to teach effectively? This chapter addresses how to provide effective, comprehensive instruction for English learners.

Implementing a pedagogy grounded in democratic principles can occur only when teachers know and honor what the learner brings to teaching and learning. This issue is addressed in this chapter, as well as the view that bilingualism is an asset and that a humanistic approach to classroom management is a necessity. Second, the chapter addresses pedagogy for English learners by focusing on issues of curriculum design, culturally responsive teaching, cognitive academic language proficiency (CALP), adapted instruction, questioning techniques, and learning strategies as core elements in a comprehensive approach to teaching English-language development and content area knowledge. Last, the chapter includes a focus on two additional pedagogical features: service learning and computer-assisted learning.

Figure 2.2 (see page 34) presents a model of instruction that shows pedagogy as a critical element of the foundations of instruction.

## Key Assumptions Underlying Effective Pedagogy

### *Clarity in How and What to Teach*

Teachers make a difference. Both common sense and research support this position (Balderama, 2001). This assumption is at the core of the pedagogy-for-English-learners model, suggesting that it is the teacher (with family support) who is in the best position to promote students' classroom success. For this reason, teachers must understand the centrality of their role in designing curriculum that not only is comprehensive, humane, and empowering but also teaches students to "read the English word" and the English-speaking world.

### *More Than Methods and Good Intentions*

Good intentions are not sufficient. Teachers practicing pedagogy for English learners must take a critical stance, reflect critically, and, if necessary, make adaptations in their own behaviors and attitudes. Bartolomé (1994) identified this as a humanizing pedagogy that requires a shift in perspective so that teachers do not get bogged down in seeking the solution to their students' underachievement *solely* through methods, but instead realize that "by robbing students of their culture, language, history and values, schools often reduce these students to the status of subhumans who need to be rescued from their 'savage selves'" (p. 233). Bartolomé (1994) further suggested that "any discussion having to do with the improvement of subordinated students' academic standing is incomplete if it does not address those discriminatory school practices that lead to dehumanization" (p. 233).

Thus pedagogical knowledge is more than a collection of "how-to" methods to teach English and academic knowledge. A much broader definition of pedagogy for the English learner places the English learner at the center of the curriculum while also taking into consideration the macro level or larger issues that may affect teaching the English learner. In short, pedagogy does not exist in a vacuum, and teachers with integrity and clarity of vision maintain a vigilant stance about the implications of specific pedagogies, techniques, or

methods they have chosen to use with English learners. Teachers with clarity of vision do not compromise humanity for the sake of methods.

The most advanced technological tools or the most innovative curriculum will fail if the teacher is unable to show and convince students that they are seen as humans first and students, or English learners, second. This statement is often contested, however, particularly in the secondary context; some secondary school teachers are unwilling to accept this position, believing that teaching the subject matter is their primary role and that they are not there to “coddle” their students. Prospective teachers often claim that they are supposed to “teach the subject, not the student.”

Humanizing pedagogy does not “coddle.” To the contrary, a pedagogy that sees students as full partners in the teaching and learning experience does not place students in a subordinate role, but instead accepts them in a status that is fair and equal. It also places students in a position in which their humanity is more important than the subject matter: Teachers teach the student first, *then* the subject matter. Pedagogy for the English learner is grounded in a commitment to honor and respect the integrity of individual English learners, their families, and their communities.

### *Democratic Practices as Pedagogy*

Another principle is that pedagogy for English learners must incorporate a multicultural curriculum emphasizing social justice and critical thinking skills. Nieto’s (2002) definition describes how multicultural teaching frames the pedagogy for English learners:

Multicultural education is a process of comprehensive school reform and basic education for all students. It challenges and rejects racism and other forms of discrimination in schools and society and accepts and affirms the pluralism (ethnic, racial, linguistic, religious, economic, and gender among others) that students, their communities, and teachers reflect. Multicultural education permeates the schools’ curriculum and instructional strategies as well as the interactions among teachers, students, and families, and the very way that schools conceptualize the nature of teaching and learning. Because it uses critical pedagogy as its underlying philosophy and focuses on knowledge, reflection, and action (praxis) as the basis for social change, multicultural education promotes democratic principles of social justice. (pp. 29–30)

This definition of **multicultural education**, although not explicitly naming it, has teaching with integrity at its core because it assumes that the teacher is a political actor within a social system (schooling) that is connected with a broader reality, or society. By recognizing this, the teacher with integrity accepts the role and the responsibility of teaching for social change and justice, and with that, the active pursuit of democratic principles.

### *Bilingualism as an Asset*

The use of multiple languages in teaching and learning is another tenet of this book. Bilingualism is an asset, and all languages are created equal. Students’ linguistic repertoires are varied, and their dialects should be honored, respected, and used as a linguistic bridge toward their acquisition of English. This pedagogical stance affirms that the use and maintenance of a child’s primary or home language is essential to maintaining the child’s and family’s integrity.

Because classrooms are complex social systems that include many individuals, learning is a social enterprise. Teachers tap into the resources of this social system, providing and orchestrating ample opportunities for students to talk, work, and learn together around academic tasks. The pedagogy for English learners acknowledges that two languages can be used and practiced in numerous contexts.

Comprehensive instruction for English learners requires that teachers use strategies that develop English-language skills (listening, speaking, reading, and writing) and content area knowledge. Chapter 7 addresses numerous strategies for teaching academic and content area knowledge in elementary and secondary settings, and Chapter 8 focuses on English-language development strategies.

## Pedagogical Theories, Principles, and Practices for Comprehensive Instruction of English Learners

The following sections address specific pedagogical strategies effective in working with English learners, including curriculum that builds on knowledge available in the learner's home and community, adaptation to the learner's family and cultural background, and culturally modified techniques of discipline and management.

### *Community-Sensitive Curriculum: Funds of Knowledge*

Last year I was teaching a methods class to secondary school teachers, and the discussion centered on what resources students bring with them to school. A science teacher in the group raised his hand and stated that he did not believe English learners, or other students for that matter, came to school with much prior knowledge. "I don't expect my students to know much when they come to my classroom," he stated, "and English learners know even less since they do not speak English." Many in the class were speechless, finding it hard to believe that someone within the teaching profession could hold the archaic belief that students are "blank slates" when they enter the classroom, and that students are deficient if they do not speak English. (MVB)

Contrary to the beliefs evident in this anecdote, a major assumption underlying the contents of this book, including the theoretical framework of teaching with integrity, is that all students, including English learners, bring extensive prior knowledge to the classroom. This assumption aligns with a pedagogical stance grounded in Freire's (1970) work whereby teaching and learning are viewed and practiced as reciprocal processes. Teaching and learning are two-way activities: Students (or learners) bring much to the table, and they too are teachers.

**Local Community Knowledge as a Resource.** Inspired by Lev Vygotsky's work, and intentionally moving away from the cultural deficit model, Moll and González (1997) tapped into the cultural resources of local communities, primarily working-class households, to develop pedagogies that view this knowledge as a resource, or funds of knowledge. He suggested that teachers can intentionally plan and create "activity settings" that combine cultural

practices and resources, thus providing opportunities for students to contribute and integrate their knowledge into schooling and classroom tasks.

The focus in this curricular approach is on what students know and bring to school, regardless of their English-language proficiency levels. Teachers visit their students' homes and communities as learners, seeking to understand the households, and particularly the practices of life, as a way to gain a "deep appreciation of how people use resources of all kinds, most prominently their funds of knowledge to engage life" (Moll, 2001, p. 17). Questions are addressed, such as, "What do the activities of a household reveal about a family's knowledge base? What are the family networks, labor history, educational history, language use, and child-rearing practices? How do households function within the broader socioeconomic context, and how do individual members obtain and distribute their material and intellectual resources?"

**The Responsive Curriculum.** The intent of the funds of knowledge approach is to render the cultural resources of households visible and explicit so that teachers can use these as starting points for their curricular planning and for creating strategic connections with classroom instruction. Moll (2001) describes how one teacher built a curriculum unit based on the information she obtained from visiting many of her students' households:

One teacher built a curriculum unit based on the information that many of her students' households had extensive knowledge of the medicinal value of plants and herbs. She was able to draw on this ethnobotanical knowledge in formulating a theme unit that reflected local knowledge of the curative properties of plants. Other teachers have created similar units with a variety of content. In some instances, individuals met during the household visits became participants, visiting the classrooms to contribute in English or Spanish their knowledge or experiences. (p. 19)

**Linking Knowledge and Biliteracy.** The funds of knowledge approach to the curriculum can also be instrumental in the development of biliteracy competencies. Moll (2001) suggested that knowing what funds of local knowledge exist in a household or community can provide teachers with opportunities to create meaningful connections between classroom learning, literacy, and modes of engagement. That is, if teachers are cognizant of the breadth and depth of local knowledge a child brings to the classroom, literacy experiences can address and tap into this knowledge to make literacy a meaningful and useful activity. In this way, the funds of knowledge approach can extend student experiences and enrich awareness while also building on what students already have in their cultural repertoire.

### *Teaching Responsively to Learners' Family and Cultural Backgrounds*

A prevalent mythology in schools is that one can teach the individual child without needing to know about a child's cultural background. This is a position taken frequently by those who oppose multicultural education. In taking this position, teachers may think they can avoid facing cultural issues. What one finds, particularly in secondary school settings, is that teachers' knowledge about their learners' backgrounds is limited. Thus, ignorance about other cultures is compounded by linguistic miscommunication between teachers and English learners. The resulting cultural and linguistic chasms undermine the academic success of English learners.

**Knowledge about Students' Cultures.** Teachers with integrity must be informed about their students. Knowing students' familial, cultural, and linguistic backgrounds is essential to effective planning within a humanizing and academically challenging pedagogy. Furthermore, the role of the teacher as intercultural educator is central to teaching with integrity because learning builds on previous learning. If teachers do not know what their students already know, it is difficult to teach by building on these funds of knowledge.

Although an individual's identity comprises many factors, perhaps the most important influence is that of the family. Basic patterns of living and existence are learned in the context of the household. For example, verbal, nonverbal, and age- and gender-appropriate behaviors are learned from observing models within the immediate household or family. Interpersonal relationships, expression of emotions, use of personal space, cooperation, competitiveness, and even conceptions of time are all cultural patterns learned within the family.

These values are learned in many ways: through the patterns of daily life, through creative expression (art, music, and dance), through contact with nature, through care for living things (children, relatives, pets, gardens). Language is also acquired within this context. The home and community are places that have taught students how to use language with all of its multiple functions (Halliday, 1978). When is it appropriate to speak, and when to listen? When is it appropriate to talk about oneself and others and to share feelings, beliefs, and values? All of these issues are learned within the context of the family and must be acknowledged because they affect teaching and learning.

Culture provides a road map of life for human beings and is an essential tool for giving meaning to the world. The household or home is the cultural system with which an individual first comes in contact, and thus it is the foundation for learning in and of the world. No child is culturally deficient or deprived, because all cultures provide an adequate pattern of living and survival for their children. Although some students may come from homes where there is economic deprivation, or speak a dialect or language different from that of Standard American English, this does not mean that these students lack culture. What these students lack are middle-class resources, which if provided can bridge gaps in knowledge or experience. And because culture affects learning, teachers must go beyond merely recognizing cultural differences (Chapter 3).

Intercultural educators have cultural knowledge about themselves and others and use this knowledge to organize their classrooms and teaching to incorporate students' cultural backgrounds. Table 5.1 outlines some fundamentals that teachers need to know about their students in order to begin to plan and deliver effective pedagogy for English learners.

**Finding Out about Students' Cultures.** Effective teachers are skillful observers of their classrooms and their students. They learn to look beyond the surface of what they see, suspend judgment, and instead use a unique lens—the ethnographic lens—that allows them to perceive and understand a particular situation, gain insight into student behavior, and even enhance their own understanding of why they view or react to a specific situation as they do. George and Louise Spindler (Spindler, 1982; Spindler & Spindler, 1963), cultural anthropologists, were some of the first to begin to use ethnographic study to understand the cultural processes underlying schools, school customs, and student behavior. The Spindlers suggested that teachers use a cultural lens—a different way of seeing—to understand and identify patterns and practices of life within classrooms.

table 5.1 Fundamentals That Teachers Should Know about Their Students

Category	Sample Questions
Basic and daily living patterns	Where does the student live? Who is present in the home? What are the routines in the home (waking/sleeping hours, for example)? What are the values about the extended family (the role of grandparents, other relatives living in the home, for example)?
Attitudes toward language usage	What language(s) are spoken in the home; who speaks which language(s) and to whom? How does the family/student see the role of primary language? How does the family value learning to speak English?
Literacy	Does the student read/write in native/primary language? What are the levels of literacy of household members? Are books or other printed materials present in the home? In which languages? Does the student have a library card?
Family occupation	What is the socioeconomic status or occupation of household members? Do both parents/guardians work?
Values	What role does "education" (various levels, elementary, secondary, higher) play in the household? How is success defined? How is ability or intelligence defined?
Social customs	What are the views of "time and space"? How are punctuality and speed in completing assignments viewed? Which activities do students complete quickly? How is personal space used in relation to self and others?
Symbolic systems	How does the student dress, comb hair, use accessories? Does student appearance reflect differences for male/female? What is culturally appropriate dress?
Rituals, ceremonies	Which celebrations (religious and otherwise) are celebrated, and how? What are the rituals important to students and families?
View of nature	How do students see themselves in relationship to nature? What is their behavior during natural phenomena such as lightning, earthquakes, and thunder?
Leisure	How do the individual and family members use their spare time?
Health and medicine	How is health viewed? How is disease treated? Does the family have non-Western approaches to healing and medication?
Interaction with institutions	Are the student and family familiar with how social institutions (educational, judicial, health) operate? Does student/family see social institutions as supportive and accessible to their needs? How is "authority" viewed?

Using an "ethnographic lens" also allows the teacher to shift perspective and begin to see and understand behavior from an insider's point of view. Henry Trueba (1989) was one of the first ethnographers to use this lens to examine specific student populations such as Mexican and Asian students. Delgado-Gaitan and Trueba (1991) also used ethnographies in their work with immigrant students and their families. This perspective is a powerful way for teachers to view the classroom, the lesson, or life in general from the perspective of a child who is learning to speak English.

A useful, clear source for conducting ethnographies is *Ethnographic Eyes: A Teacher's Guide to Classroom Observation* (Frank, 1999). Frank defined the ethnographic perspective

as the study of culture based on multiple perspectives. Ethnographies are written descriptions of culture that allow teachers to open their eyes to other meanings of culture. The insights thus provided help teachers develop awareness and consciousness of a new way of thinking, leading to a change in their thinking about themselves and their own cultures. Ethnographic research and observation allow for an understanding that reality is not fixed, given, and objective, but rather is socially constructed, learned, and heavily dependent on perspective. It helps make explicit the role of language in shaping reality. This observational skill is an important tool in the pedagogical repertoire of the teacher of English learners.

For example, the questions in Table 5.1 can be useful in beginning to generate ethnographic data about a particular student. These questions can guide the teacher interested in finding out specific information about a child, which can later be used to inform his or her teaching.

**Cultural Accommodation.** Culturally relevant teaching acknowledges the role that culture plays in teaching and learning, and is a way to bridge what students bring to school and the teaching practices found in schools. To make instruction culturally relevant, teachers use teaching strategies and methods that recognize and build on the way students have been taught to learn, behave, and use language. This model of responsive teaching also suggests that teachers examine the shortcomings of the Eurocentric cultural perspective—the learning styles, values, and academic content—that may create a cultural incongruence between teachers and English learners. Instructional accommodation allows students and teachers to meet halfway. This examination includes attaining clarity about the use of American Standard English.

### *Classroom Management Aligned with Humanistic Education*

Pedagogy grounded in humanity and rooted in democratic principles is provided optimal conditions in a classroom that is also managed humanistically. Larrivee's work *Authentic Classroom Management* (1999) is an exemplar of a humanistic model of management that dramatically shifts the paradigm away from the view that student behavior is problematic or in need of reform. Larrivee's approach to management rests on the assumption that "effective classroom management begins with teacher self-awareness, self-control and self-reflection, not with the students" (p. viii).

Larrivee supported this position by suggesting that teacher responses to student behaviors reveal how secure and competent teachers feel as teachers. If teachers feel confident in their potential to be effective, they tend to solve problems and use management strategies that humanize, rather than dehumanize, students. Larrivee (1999) advocated that classroom management be humanizing and reinforced the idea that, like effective pedagogy, effective classroom management is more than a collection of skills and strategies, but instead a deliberate philosophical and ethical code of conduct:

If teachers latch onto techniques for handling student behavior without examination of what kinds of responses to students would be congruent with their beliefs, aligned with their designated teaching structures and harmonious with their personal styles, they will just have a bag of tricks. (p. ix)

Although recognizing the challenge of managing today's classroom, Larrivee further explained, "The path cannot be preplanned—it must be lived. Meeting the challenge calls



for teachers to resist establishing a culture of control in order to create an authentic community of learners” (p. ix).

**Management That Creates a Community of Learners.** The classroom is a community; in a classroom that encourages humanistic behavior, students and teacher build relationships based on mutual respect and integrity. Student–teacher classroom interaction patterns are collaborative and equitable, with minimal favoritism. Daily routines and tasks are proactively planned so that classroom practices and teaching–learning structures promote acceptance of students from all cultural, social, and linguistic backgrounds.

Classrooms with low-achieving students (and English learners are often erroneously perceived as such because of their level of English proficiency) may have a restricted focus on interactions related to classroom behavior and may feature teacher–student interactions that reduce genuinely intellectual activities. Unfortunately, English learners are often perceived as “low status” and less able or competent to participate in class discussions or group projects. Teachers with integrity must be vigilant about the interactions in their classrooms and constantly reflect on how opportunities to talk and participate are structured.

Classrooms dominated by a few privileged students obstruct the possibilities for creating a community of learners. The community must involve all students authentically. Creating a community of learners involves the following factors:

- Becoming a reflective practitioner
- Planning that is preventive, not reactive
- Building democratic learning communities
- Communicating by keeping channels open
- Managing collaborative decision making
- Promoting student self-management and responsibility

**Building Relationships.** Effective classroom management that is authentic and inclusive of all students requires more than discipline, rules, and routines. It includes building relationships between students and students, and between students and teacher, and is characterized by a safe and caring environment. A community of learners is grounded in integrity and collaboration, and students’ emotional and personal needs are concurrently addressed along with their academic and social needs.

Such a classroom tends to focus on shared views of power and is less hierarchical and teacher-centered. Power is used collaboratively instead of coercively (Cummins, 1996). The role of the teacher is redefined as the teacher moves from manager to facilitator. Larrivee (1999) suggested that the shift in teacher role has tremendous implications and possibilities for transforming student–teacher interaction patterns.

**An Adaptive Model of Classroom Management.** Hoover and Collier’s (1986) model of classroom management, which is based on interactions and adaptations of classroom elements also provides a useful tool for creating communities of learners. Their model has been used primarily in classrooms comprising minority students and minority students with learning disabilities, but it is also applicable to classrooms in general. It integrates classroom management and curricular adaptations of four basic elements: content, instructional strategies, instructional settings, and student behaviors.

table 5.2 Adapting Instruction to Facilitate Classroom Management

Adaptation	Implementation
Response alternatives	Provide alternate modes of response, such as oral, rather than written, visual, or graphic.
Segmentation of assignments	Shorten assignments by dividing complex tasks into segments.
Student input, ownership	Incorporate students into the curricular planning process and decision making.
Student choice	Provide options for students—alternative assignments and activities.
Primary-language options	Provide opportunities for students to use primary language as they work.
Explicit communication	Communicate academic and behavioral expectations explicitly and repeatedly; restating in different ways if necessary.

Source: Hoover and Collier (1986).

Hoover and Collier (1986) proposed that curricular elements (choices made by the teacher) have important consequences for management. Thus, content, classroom setting, strategies, and student behavior are interdependent, and change in one will affect the others. Although Hoover and Collier did not focus on the teacher's role explicitly, their model posited implicitly the centrality of the teacher in planning and organizing a curriculum that is student-centered. Table 5.2 presents some of the techniques they suggest for adapting instruction.

Both Larrivee (1999) and Hoover and Collier's (1986) models of management support the idea that effective classroom managers are teachers with integrity. Classrooms characterized by respect and learning are student-centered, without the assumption that students must be controlled and managed by a set of rules that rest on coercive and dehumanizing power. Instead, teachers are facilitators and experts in human relationships—in being fully human—as well as in academic content, and they are able to create learning environments that honor and maintain their integrity as well as that of the students.

### Conversational versus Academic Language

One of the most important theoretical concepts for teachers of English learners is that language plays a variety of roles in instruction. Language varies in difficulty depending on the functions for which it is used and the skill needed to use language in these various ways.

#### *Language Functions*

Halliday (1978) distinguished seven functions for language: instrumental, regulatory, representational, interactional, personal, heuristic, and imaginative (see also Chapter 8). More recently, Christie, Enz, and Vukelich (1997) proposed three broad domains of language use, each with specific functions (see Table 5.3.) Teachers of English learners recognize the wide range of language functions and use this knowledge to provide students with multiple opportunities for self-expression and social interaction.

table 5.3 Domains and Purposes of Language

Domain	Purpose
Self	Reveal, assert needs; fulfill personal needs; reach goals; direct and control self/others
Self and others	Interdependence; social interaction; share about self; express feelings
Self, others, world	Create, comprehend, find out, and communicate; expand knowledge, information; pretend, fantasize

Source: Adapted from Christie, Enz, and Vukelich (1997).

The language used in the classroom is a mix of Halliday's seven functions. Language is heuristic when it is used for problem solving, imaginative when art and poetry are evoked, personal and interpersonal when used for informal expression of feelings or relationships, instrumental when teachers use language to organize classroom activities, and regulatory when discipline is necessary. However, the key function of academic language is representational. Knowledge of all sorts is represented, often in abstract ways; students are expected to use language to re-represent knowledge by comparing, inferring, synthesizing, and so forth, developing and using higher-order thinking processes. Language used in these abstract, cognitively demanding ways is called cognitive academic language.

### *Cognitive Academic Language Proficiency*

Cummins (1979, 1980) proposed two different, yet related, language skills: basic interpersonal conversational skills (BICS) and cognitive academic language proficiency (CALP). BICS is the language that allows students to communicate in daily social contexts in school; it is social, everyday, playground or hallway language. The mass media, particularly television viewed by English learners, is filled with BICS-type language; and the language required for classroom chores and social interaction with peers and adults also utilizes BICS.

The BICS-CALP distinction is one of the most useful concepts for teachers of English learners, and it greatly helps to explain student academic performance. The following anecdote by a seventh-grade science teacher, Mr. Sutton, aptly captures the usefulness of this distinction and its application to teaching.

Before I learned about the different types of language, I remember blaming my students because of what I thought was their refusal to speak English in my science classroom. Because I had no explanation for their not speaking in my classroom, I resorted to blaming them.

I recall two students, Tomas and Huey, speaking English in the hallways with their English-speaking peers. They were both sociable students and quite competent. I remember their speaking to me before class; they were polite. Yet once we began to "do science," it was as if they knew nothing, or didn't even know how to speak English. I remember talking about this in the faculty lounge. Mrs. Pointe (a seventh-grade social studies teacher)

commented that she thought Tomas knew English, yet when he came into her social studies classroom he would say little and even refused to participate in most classroom activities.

We attended a seminar for teachers that dealt with the differences between the different types of language we can see in the school setting. The language that students like Tomas needed in English for my classroom was academic, technical, formal language—the language of science. This was very different from the conversational language he was using with his friends. We also learned that this conversational language is acquired and develops much quicker, and that the academic language takes much longer and requires more complex skills because it is used for literacy in the content area. The lights went on for me!

I realized that Tomas and Huey needed my support in acquiring this academic language so that they could function in my science classroom. Everything fell into place for me—or rather for them—after I learned this important distinction. I quickly began to look for ways to teach them this academic language. And more important, I didn't view their not doing science as lack of motivation or unwillingness. I realized they just did not know the language of science and part of my job was to teach them that language.

**More about BICS.** According to Cummins (1981a) and others (Collier, 1987; Hakuta, Butler, & Witt, 2000), BICS can reach nativelike levels within two years of exposure to English. This finding rests on the assumption that the social environment of students is BICS-rich. It follows, then, that this is the linguistic repertoire students acquire first.

Another important aspect of BICS is that it is context embedded, meaning that students can communicate without relying exclusively on the linguistic code. BICS operates and is acquired in socially meaningful settings in which the situation can provide information to enhance or complete the meaning of what is said. For example, communication that takes place between two or more people in their everyday activities may not rely on or require words exclusively.

Thus an English learner can begin to understand that “hi” is an informal greeting because it is also accompanied by a smile or a wave of the hand. The oral expression of “hi,” then, is quickly assimilated and understood because the context has provided much rich information to give it meaning and usefulness. CALP, on the other hand, is more challenging to acquire because it involves context-reduced communication. English learners tend to acquire BICS successfully without any intentional strategies, whereas CALP is taught almost exclusively and explicitly in schools.

**Academic Language for School Tasks.** Performing school tasks successfully requires abstract and decontextualized language. CALP requires language background and knowledge to attain meaning. This linguistic cycle suggests that words cannot be separated from knowledge or learning. It is not possible to understand a topic without first understanding specific terminology relevant to that topic. And in order to learn specific terminology, a person must have some understanding of language. CALP also provides language for fundamental cognitive processes necessary for systematic thought such as categorizing, comparing, analyzing, and accommodating new experiences and knowledge. Content area academic knowledge and CALP tend to coexist—one cannot succeed without the other. Academic literacy

requires in-depth knowledge necessary for college entrance and success; it also characterizes the language of a well-educated citizen in a democracy.

**Transfer of Proficiency.** One of the reasons English learners have difficulty acquiring CALP is that the linguistic resources these students bring through their primary language are not tapped or used. That is, most bilingual education programs transition students into English as quickly as possible based on the erroneous assumption that proficiency in English is separate from proficiency in a primary language, and that content and skills learned through the primary language do not transfer to English. Cummins's (1981b) common underlying proficiency (CUP) assumption is that primary and secondary languages have a shared foundation; this shared foundation provides the basis for transfer of cognitive language from L1 to L2.

An individual has to learn a new concept, and learn to read and write, only once. For example, he or she needs to learn the concept "book" only once; if learned in German (*buch*), for example, the concept does not have to be relearned or taught again—only how to say "book" in other languages. The same holds for literacy in general; acquiring deeper understanding of the functions of reading and writing and their relationship to thought and learning needs to occur only once. Therefore, once a student has a strong linguistic and literacy foundation in the primary language, learning a second language—and learning in general—builds on this foundation, and elements once learned do not need to be relearned. This accelerates acquisition of academic language in English.

## Specially Designed Academic Instruction in English

Specially designed academic instruction in English (SDAIE) (also known as "sheltered instruction") was a response to the growing need for monolingual-English-speaking teachers to adapt and modify instruction for their English learners. As the population of English learners grew yet the number of bilingual teachers did not grow proportionately, teachers and schools had to do something about the "getting behind in content areas" phenomenon. SDAIE emerged in the 1980s to fill this gap under the assumption that if teachers adapted their traditional ways of teaching, English learners would be given access to content area curriculum, and ultimately could be participants in the academic discourse without falling behind in subject matter knowledge.

Students at the intermediate level of fluency or above can benefit if subject area teachers incorporate specific teaching modifications to make a lesson understandable. This provides additional instructional support to English learners rather than allowing them to "sink or swim" in a content class designed for native English speakers (Echevarria, Vogt, & Short, 2000).

What is SDAIE? What does it look like in classrooms? This section attempts to answer these questions and provide examples of adaptations embedded in the SDAIE approach.

### *What Is SDAIE?*

Adapted instruction is intended to meet the needs of English learners in the following ways. According to Echevarria, Vogt, and Short (2000), students

1. Learn grade-appropriate content
2. Master English vocabulary and grammar

3. Learn “academic” English (this includes CALP, as well as ways in which English is used in content subjects)
4. Understand and use appropriate classroom behavior, such as turn taking, participation rules, and established routines

Teachers implementing SDAIE focus on their communication strategies to ensure that the messages used to present content area instruction are comprehensible to English learners. What this implies is that teachers address their students’ language needs and present material by creating opportunities for students to be active learners and by designing curriculum that integrates student interaction, hands-on learning, use of visuals, and other pedagogical practices of good teaching.

Effective SDAIE teachers organize instruction by modifying complex information to demystify and simplify it so that students understand. SDAIE does not mean changing the curriculum; SDAIE means changing how teachers present the curriculum.

**Challenging Students to Perform to their Maximum Potential.** In SDAIE instruction, teachers hold students to high expectations by using academic standards that are not watered down for English learners and that push students into higher zones of proximal development. Regardless of students’ level of English proficiency, SDAIE teachers hold students to the same academic standards and push students to excel. Having limited literacy skills in English does not let students off the hook; instead, SDAIE teachers provide opportunities for students to perform to the limit of their potential on a daily basis.

**Content Plus Language Objectives.** SDAIE also implies that teaching English learners is not an either/or proposition, which is how it has been posed in many secondary schools (that is, they either receive English-language development or they receive content area instruction). Effective sheltered instruction is proof that students can receive *both*, because content area knowledge is provided alongside English-language development.

The only thing that changes is that SDAIE teachers also address language objectives and implement these language goals by adapting the instructional delivery or activities of the lesson.

**Reducing SDAIE to “Just Good Teaching.”** Many student teachers, when presented with SDAIE, regard it as “just good teaching.” This is a myth. Díaz-Rico and Weed (2002) and Echevarria, Vogt, and Short (2001) made the important distinction between SDAIE and good teaching: SDAIE teachers know their students’ English-proficiency levels, acknowledge how these levels affect comprehension of content, and accordingly incorporate techniques that will provide comprehensible input by teaching language as well as content.

Many teachers fail to understand that, for English learners, achievement requires more than “trying hard.” English learners can try their hardest and still encounter academic failure if the teacher does not modify lessons so they can understand what is expected of them in that particular class. SDAIE teachers teach with integrity and understand that it is their duty to adapt and modify their lessons so that all students have access to their rich curriculum. Table 5.4 compares “good teaching,” which tends to exclude English learners, with SDAIE practices, or “good teaching that includes English learners.”

table 5.4 The Myth of “Only Good Teaching” Compared to SDAIE

“Only Good Teaching”	SDAIE
Excludes English learners.	Includes English learners.
Includes academic goals.	Includes academic goals, language goals, and learning goals.
Uses teacher centered teaching.	Uses student-centered teaching and learning.
Talk is teacher dominated.	Opportunities for students to use language are designed and planned.
Learners tend to be passive.	Learners tend to be active.
Students are expected to adapt to the curriculum.	The curriculum is adapted by the teacher.
Modifications are random.	Modifications are planned and guided by students’ language needs.
Curriculum is changed, or watered down, to make it accessible to English learners.	Curriculum remains the same but is modified to make it accessible to English learners.
English-language development issues are not incorporated or made visible in planning.	English-language development issues are incorporated in planning and/or teaching.
Comprehension errors are seen as due solely to content misunderstandings.	Comprehension errors may be due to language misunderstandings.

### *SDAIE: Overview of Core Elements*

The goal of SDAIE is to provide access to content area knowledge through instructional modification and language development. In doing this, teachers know their students’ academic and language needs, respect their humanity by believing that their students can and want to learn, and then begin to plan accordingly. Thus the disposition and attitude of the teacher is critical in setting the stage for a lesson that is successful and supportive of its students.

Teaching must take place in an environment that is rich in mutual respect and based on the belief that English learners have linguistic resources that teachers can tap to teach content and English-language development—these assumptions are the backbone of a successful SDAIE lesson. SDAIE includes the following pedagogical core elements: (1) content, (2) creating meaning through connections, (3) comprehensibility, (4) language interactions, (5) use of L1, (6) assessment, and (7) reflection/critical stance. Table 5.5 presents these core elements.

### *Access to Content*

Content is the heart of a lesson that focuses the teaching and learning goals. Thoughtful planning is guided by content objectives, which ultimately help inform pedagogy and facilitate necessary modifications in the presentation of the curriculum. Language and learning-strategy objectives should reflect content selection and be closely aligned with content goals.

table 5.5 Core Elements of SDAIE

Content	Language Interactions <i>(continued)</i>
Academic Language Learning Materials and resources	Opportunities to use social and academic language Teacher to teacher (team teaching) Teacher to whole class Teacher to student Student to teacher Student to group Student to whole class Student to content or specific discipline Student to self Student to parents
<b>Creating Meaning through Connections</b>	
Prior knowledge (personal background, content-related)	
Connecting to students' lives	Use of L1
Connecting to other lessons, other subjects, schooling, previous learning	Preview content
Linking previous to new knowledge	Clarification
Schema building	Primary-language materials
Scaffolding	Student interaction
Learning strategies	Collaborative work
<b>Comprehensibility</b>	<b>Assessment</b>
Messages with meaning (visuals, gestures, intonations, dramatization)	Informal and formal
Use of multiple intelligences and learning styles	Ongoing comprehension checks
Modeling	Multiple opportunities to show understanding
Speech adjustment	Alternative assessment
	Self-assessment
<b>Language Interactions</b>	<b>Reflection/Critical Stance</b>
Opportunities to use language informally and formally	Strengths
Questioning strategies	Areas for improvement
High expectations for language development by challenging students to perform beyond their potential	

**Academic Content Objectives.** How do teachers know what to teach? Content is guided by content standards in each of the discipline areas according to grade level. The content standards delineate what students are expected to know for each grade level. State committees develop these content standards and publish curricular goals for teachers to adopt. In lesson planning, teachers divide these curricular goals into units of study and then into daily lessons. Objectives are then developed for each lesson.



**Language Objectives.** Traditional lesson planning did not include language objectives. Language arts lessons may have included some aspects of language objectives, but these were not targeted at promoting English-language development for English learners. SDAIE lesson planning takes into account specific language demands in the content areas as well as student language needs and, in recognizing these, incorporates these in the planning. In California the English Language Development Standards provide the specific language standards that should be addressed as teachers plan. These standards are represented by proficiency levels and by grade level. Teachers identify the specific standards and then translate these into language objectives related to the academic goals of the lesson. These language objectives then help the teacher design the language demands of the academic lesson.

**Learning-Strategy Objectives.** Learning strategies are being recognized more and more as an integral part of teaching, an idea made explicit in Chamot and O'Malley's work in CALLA (see the discussion of CALLA later in this chapter). Learning strategies are the "how" of learning that should be made explicit to English learners. How does each student learn, and how do these strategies relate to academic work? By making learning strategies explicit and by developing them into specific objectives, SDAIE teachers can plan to target them in their instruction. This chapter suggests numerous ways in which teachers can select these learning strategies, incorporate them in their teaching, and make them visible to students. Learning strategies are addressed more fully later in this chapter.

**Materials and Resources.** The materials a teacher chooses in order to teach a lesson play a central role in the success of a lesson. Therefore, material selection is an important task when planning an SDAIE lesson and in modifying curriculum for English learners. This is particularly important given the central role that textbooks play in schools. The SDAIE teacher should be familiar with the textbooks used in the content areas, including the reading level required to access the content.

With this knowledge, the teacher can make appropriate modifications or adaptations when using the text and incorporate other resources that can supplement and enhance instruction. Teachers should also check the comprehensibility of the text and identify discourse patterns or jargon that may pose reading or comprehension challenges for English learners. Also, how are graphs, tables, or charts labeled? Is the text user-friendly? Does the text have a glossary? Does it invite the student to open the book and use it?

Many teachers have resource libraries in their classrooms stocked with primary-language materials such as dictionaries (some that are visual), encyclopedias, maps, charts, books, and computers bookmarked to specific sites related to the academic content. Para-educators or tutors often use these resource centers to provide further support to English learners.

### *Creating Meaning through Connections*

Brain-based theory postulates that learners are engaged when the brain is able to create meaning by blending knowledge from previous experiences with that of present experiences. Effective SDAIE teachers thus orchestrate meaning by making connections explicitly instead of leaving this to chance. These connections can be made by tapping into students' prior knowledge, connecting to students' lives, connecting to their previous academic knowledge, and, finally, by linking or anchoring new knowledge to previous knowledge.

**Prior Knowledge.** *Prior* means “occurring before.” In the teaching context, prior knowledge refers to knowledge that students bring with them that can be tapped and built on during the lesson. In the following section we suggest that prior knowledge exists in two forms: (1) that gained from personal or life experiences and (2) academic knowledge that has been learned at school. SDAIE teachers pause in their lessons to create opportunities for students to display prior knowledge in whatever form it occurs, because both can be ultimately linked to academic content.

**Personal Prior Knowledge.** Many English learners have rich backgrounds that have given them extensive funds of prior knowledge they can access and share given the opportunity.

A seventh-grade student from the state of Michoacán in Mexico worked with his father raising horses. Manuel began to talk about this one day when the teacher was talking about domestication of animals. After Mr. Thompson explained the concept of animal domestication, he asked the class if anyone knew examples of domestication and/or had experiences. Manuel raised his hand and began to speak about how his father worked with horses. He began to explain at length about raising horses and how his father had told him about how horses, like dogs, had been “tamed” by people, and that this process had taken a long, long time.

Mr. Thompson was surprised to learn about Manuel’s previous life experiences, which provided a natural link or bridge to the academic content of the lesson. He acknowledged the valuable knowledge and insights Manuel had as a result of his experiences with his father, and then selected key points Manuel had made (such as taming horses and history) to expand on the lesson on domestication. (MVB)

This example illustrates how teachers can provide opportunities for open discussion that allow students like Manuel to share experiences with others that not only enrich the academic content but also allow other students to see that English learners are not underachievers and unidimensional, but instead complex human beings with a wide range of experiences.

**Academic-Related Knowledge.** Teachers tend to see prior knowledge primarily as those previous academic experiences students bring to the lesson. And as suggested earlier, some teachers view a lack of English proficiency as synonymous with lack of academic or intellectual knowledge. Many English learners who have had previous schooling possess rich academic knowledge in many content areas. Teachers who know their students’ backgrounds can actively plan to tap into what students already know about the subject and extend this knowledge into the lesson.

**Connecting to Students’ Lives.** Manuel’s experience served as an example of how personal prior knowledge can enhance a lesson by allowing students to share their experiences when discussing the content of a lesson. For example, Mr. Thompson can connect the academic and abstract concept of animal domestication with Manuel by talking about horses as one example of animal domestication. Mr. Thompson also knows that many of his students have

dogs, so he continues connecting this concept to his students' lives. Learners tend to remember what has meaning. By thinking about the numerous ways in which an academic concept can be linked to students' lives, teachers can hook their students into the lesson, as well as involve them in retaining the information.

**Connecting to Other Lessons.** Part of the cycle of teaching and planning is that teachers connect what is to be learned, or today's academic goals, with what has been studied earlier. In this way, students find coherency in their learning and see that concepts and learning are interrelated and interconnected. Again, using Mr. Thompson as an example, we can hear him connect previous lessons to today's lesson on domestication: "Remember last week when we studied about wild animals? Well, today we will study about another type of animal that was once wild but today is tamed or domesticated."

**Linking Previous Knowledge to New Knowledge.** Examples from Mr. Thompson's class suggest that students may have previously acquired knowledge, or schemata, that he can tap in order to teach the lesson on domestication. However, in many instances students lack prior knowledge about the topic and will not succeed without the teacher's intervention and support. Schemata must be created, and this can be done successfully by scaffolding or using instructional techniques on a temporary basis to get the learner to master the content. Scaffolding provides the cognitive links that build new concepts and connect these newly learned concepts with previous knowledge. Scaffolding techniques include semantic mapping, graphic organizers, and discussions that tap into prior knowledge.

### *Comprehensibility*

Krashen (1981, 1982) suggested that people acquire language by getting comprehensible input—messages that have meaning or that the listener understands. Those messages that we hear and do not understand sound like a "blob"—it is hard to hear where words begin and where they end. Knowing this, teachers make efforts to present messages or concepts in more than one way. Variety in the presentation of messages tends to increase comprehensibility; if students fail to get the message through Method A, the teacher can switch to Method B. The message remains the same—all that changes is the delivery.

**Messages with Meaning.** Some messages with meaning provide visuals, holding true to the expression that "a picture is worth a thousand words." Pictures tend to provide a setting or context, which gives the listener cues that increase the meaning of the concept. The concept is introduced alongside the picture, providing a backdrop the listener can use to find meaning in the spoken-language message. Gestures, intonation, and role-playing or dramatization emphasize language by increasing its context and providing additional clues the listener can use for interpretation. Speech adjustment is also important, because many speakers of a foreign language state that they could understand if only the native speaker did not speak so fast. SDAIE teachers adjust their speech by slowing down (which is not the same as using baby talk) and enunciating clearly.

Table 5.6 presents a brief summary of the ways in which teachers modify speech to make themselves more understandable to English learners.

table 5.6 Teachers' Language Modifications in SDAIE

Type of Modification	Definition	Example
Precise articulation	Increased attention to enunciation so that consonants and vowels in words are understandable	"Trade your <i>homework</i> with the person <i>beside</i> you."
Use of gestures	Showing with hands what is to be done	[Make a swapping gesture with papers to act out "trading homework."]
Intonation	Increased stress on important concepts	"The number of <i>correct</i> answers goes at the top of the page."
Simplified syntax	Shorter sentences, with subject-verb-object word order	"Mark the papers. Give them back."
Semantic clarity	More concrete, basic vocabulary; fewer use of idioms	"Turn in your work. I mean, give me your homework."
Pragmatic distinctness	Frequent and longer pauses; slightly slower delivery	"Check the chemicals. . . . Check the list. . . . Be sure your team has all the chemicals for your experiment."
Use of discourse markers	Careful use of transition words, emphasis, and sequence markers	"Note this" to denote importance, or "now," "first," "second," and "last" to mark a sequence.
Use of organizational markers	Clearly indicating change of activity	"It's time for recess; . . . put away your books."
More structured discourse	Main idea easily recognized and supporting information following immediately	"Today we are learning about mole weight. . . . I will show you how to calculate mole weight to make the correct solution."
Use of clarification checks	Stopping instruction to ask students if they understand; monitoring students' comprehension	"Hold your thumb up in front of your chest if you understand how to use the formula for acceleration."
Soliciting written input	Having students write questions on index cards	"I have a card here asking for another explanation of longitude degrees and minutes. OK. . . ."
Repetition	Revisiting key vocabulary terms	" <i>Precipitation</i> means overall rain or snowfall; we are going to study the precipitation cycle."
Use of mini-TPR lessons to preteach key terms	Acting out terms to increase understandability	"'On the other hand': Carlos, stand over here, and Elena, stand here—you are 'on one hand,' he is 'on the other hand.'"
Use of primary language	Saying simple directions in the students' language(s)	"Tsai jher, over here, tsai nar, over there." (Mandarin)

**Use of Multiple Intelligences.** The concept of multiple intelligences opens up additional opportunities for students to participate in a learning task. For example, traditional classrooms tend to be characterized by tasks that require verbal (Standard English) and logical or mathematical abilities. Many English learners are automatically excluded from these learning tasks and consequently denied access to the content area curriculum. Planning for a curriculum that incorporates multiple intelligences (Gardner, 1983, 1993) increases the possibilities of students gaining access to the content area.

In other words, teachers who plan learning tasks that incorporate abilities along the numerous intelligences open the door for many of our students to enter. *Finding Out/ Descubrimiento* (De Avila & Duncan, 1980) is an example of an elementary math and science curriculum that incorporates multiple intelligences in its work.

A relevant question teachers can ask as they plan is the following: How many kinds of intelligences are required to complete this task? The answer provides an accounting of how many opportunities are provided for students to succeed. Use of one intelligence will mean only one way to show success in a learning task, whereas the use of four intelligences will provide at least four opportunities for students to perform well. Teachers can do simple surveys of their students to establish which intelligences may be preferred by a class. In this way, the SDAIE lesson is sure to include all learners in the process.

**Use of L1.** A theme running throughout this book is the importance of coming to know the students, which includes knowledge about their primary-language usage and skills. Teachers use students' primary-language experiences as prior knowledge and linguistic resources that students can tap to learn content area knowledge and improve English-language development. The use of the primary language can be a type of scaffolding that teachers use to introduce new knowledge; unfortunately, this strategy is frequently underutilized.

When a language arts teacher in an eighth-grade classroom introduced the new theme for literature circles, she told the class, "This quarter we will be reading different novels with a central theme on speaking out, and today I will introduce all the books you can choose from." She wrote this theme on the board and asked several ELLs how to say "speaking out" in their language. Some ELLs used their bilingual dictionaries to translate the phrase. This was done in Korean, French, and Spanish. The teacher created a web and wrote students' translations phonetically around the English word, asking the class to repeat after each student. She made references to these words throughout the lesson (Sumaryono & Ortiz, 2004).

**Preview of Content.** The primary language can be useful in previewing content and giving students an academic heads up on what to expect in a future lesson. This alleviates much anxiety because students know what to expect, and they can focus on the content and not on understanding what is being said. SDAIE teachers can plan this by having a para-educator preview material using the students' primary language, or teachers themselves can bring English learners together to preview content the day before the lesson.

**Clarification.** Comprehension implies understanding, and the primary-language materials can be useful in clarifying concepts that may be difficult for students to grasp in English. Visual, multilingual dictionaries are useful in this clarifying process, because it is not unusual for a single word or concept to be a stumbling block in a learning task that may require more time. Student-centered classrooms abound with student-friendly materials that supplement texts and include primary-language materials for English learners.

### *Interaction*

Planning how students will interact and use language in the classroom is important when the goal is both content mastery and language development. Teachers should plan for ongoing student interaction centered on academic tasks. Rather than same-ability grouping, collaborative work in mixed ability or heterogeneous groupings provides ample opportunities for English learners to interact, use language, hear native speakers, and share and learn from their peers in a low-anxiety setting. From these interactions, the SDAIE instructor can glean important information about student progress in both content learning and academic language development.

Group work, for example, allows students to collaborate on learning tasks and use language freely without having to worry about the presence of the teacher. SDAIE teachers recognize that student-centered classrooms provide multiple and ongoing opportunities to use language. One way to plan for language use is to consider the language interaction scenarios in Table 5.5.

Teachers can also have students conduct surveys of language use to identify the opportunities students have to use language in a day or even in a week. This activity can shed light on how students (and teachers) are using language.

**Plans for Language Use.** Teachers might ask, "How am I planning for students to listen, speak, read, and write language on a daily basis?" Allowing students to speak and hear themselves and others is an important step in helping them develop language and acquire content knowledge. Most of us have experienced times when we have read a particular word again and again yet have not had the opportunity to speak it. Once we say the word (even if we pronounce it incorrectly), it takes on a life all its own and ceases to mystify or intimidate us. An analogy can be drawn with English learners when they are given the chance to use language in a low-anxiety environment.

**Using Language Informally and Formally.** Language and the ability to use it remind us that there is a time and a place for certain kinds of language. Social contexts often determine the appropriateness of language, and English learners should be taught how language requirements can vary. Speaking English informally (using BICS), students communicate with their friends. For many classroom functions, however, the setting and content require formality and specific language. Therefore, part of SDAIE planning should include communicating to and modeling for students those certain disciplines that require different types of language. The formal language used in science; for example, is quite different from that used in the social sciences or to talk about historical events. Making these distinctions allows students to understand the complexity of human communication and to not feel intimidated by formal or academic language.

*Assessment: Formal and Informal*

Teachers implementing SDAIE strategies are also aware of the importance of assessing their English learners. Chapter 10 examines assessment of English learners in more depth, whereas the following discussion briefly touches on key considerations teachers need to make in evaluating their students.

Experiences with prospective teachers have shown that informal methods of assessment such as observation often go unrecognized by many SDAIE teachers. Interestingly, many teachers tend to identify assessment only with more formal measures such as quizzes, portfolios, or standardized tests. However, informal methods can be just as informative about students' work and progress if teachers include them in their repertoire and acknowledge them as integral parts of their lessons. Indeed, informal assessments can be useful and practical, particularly in secondary school settings, where a teacher may work with more than 125 students each day, and correcting that many papers on a frequent basis becomes unrealistic.

**Ongoing Comprehension Checks.** Monitoring the progress of English learners involves checking for understanding of the concepts covered. Teachers can conduct ongoing comprehension checks to ensure that students are "with the lesson" and following along. Examples of ongoing comprehension checks include asking students to paraphrase to another student or to a group what is expected or learned in the lesson. Some teachers use hand signals to get a reading of how students are following along. The most important point is that teachers do not wait until the end of the lesson or unit, or until the day of the test, to find out if students are comprehending the lesson, but instead establish a conscious routine that checks for student comprehension. Also, asking students if they understand is not an effective way to check for understanding because most students will respond "yes" even when they do not understand.

**Multiple Opportunities to Show Understanding.** Teachers of English learners should not rely on just one way for students to show that they are learning, but instead use multiple ways to determine whether students show understanding. Beginning students might show understanding by responding to questions with "yes" or "no," and intermediate students might report on their laboratory findings in a brief oral presentation or in a written report. More advanced English learners can participate in dramatizing or role-playing. Students of all levels can show understanding through drawings.

**Alternative Assessment.** Teachers who provide multiple modes of assessing student knowledge are engaging in alternative modes of assessment. Thus teachers do not rely on one measure to determine whether a student has understood and can apply concepts. Alternative assessment includes methods such as authentic assessments that tend to capture what students have been taught and what they have learned in a genuine way.

**Self- and Peer-Assessment.** An integral part of English learners' education is to help them take responsibility for their own learning. In modeling self-assessment and teaching students to self-assess, teachers provide students with an important skill. In this way, teachers can develop activities that help students pause to evaluate themselves to see how they are doing. Monitoring their own progress and learning allows students to become independent

learners and to establish teaching and learning relationships with their teacher that prevent them from being embarrassed to ask for support or clarification.

English learners are quickly socialized to hide their gaps in knowledge and to avoid errors in their English-language development. Encouraging students to practice self-assessment creates learning environments in which not knowing everything is simply part of being a student; this is critical because errors or lack of comprehension can be common occurrences in the life of an English learner.

Peer assessment is also useful. To be useful, however, peer response must be modeled and taught as part of the learning process from the beginning, so that students are aware of ways they can prepare to become more deeply involved in the discussion of ideas and substantive issues. This helps students focus on the communicative content of the project and draws them together in a more respectful sharing of the messages they send.

### *Reflection/Critical Stance*

As suggested in Figure 2.1 (see page 21), teachers with integrity look back and reflect on their teaching, their practices, and their own learning. Successful completion of the cycle of teaching involves taking a critical stance when looking back on the lesson for its strengths—those parts of the lesson that went well—and also those areas that need improvement. Future planning can be modified or enhanced by consciously knowing what needs to be maintained or improved, thus starting the cycle of teaching once again.

## Questioning Strategies for English Learners

Effective questioning skills are closely linked to effective pedagogy. Skill in knowing what questions to ask and how to evaluate the responses is among the most important skills a teacher can have because of the link to cognitive and academic learning gains. Teachers' questions not only develop a framework for the subject matter involved (Woolfolk, 2004) but also set the tone for student engagement and participation (some questions engage students, whereas others disengage) and establish behavioral and cognitive expectations.

Teachers use questions frequently and for several purposes in their teaching. At times it is to check for comprehension, and other times it may be to probe for prior knowledge. The following section focuses exclusively on questioning and provides numerous ideas for teachers as they prepare their questions. What is important to remember is that good questions must be planned and thought out in lessons designed for English learners.

Students become aware of what is expected of them by the kinds of questions that teachers ask. Teachers who have high expectations for their students tend to spend less time on managerial or procedural questions, which focus on whether students know what to do, and dedicate more time to challenging students with more cognitively demanding or higher-order questions.

### *Core Elements and Goals of Good Questions*

Groisser (1964) suggested that all good questions have the following core elements: They are purposeful, clear, brief, natural, thought provoking, limited in scope, and adapted to the level of the class. Furthermore, questions should be guided by specific aims, and teachers should ask themselves what they hope to gain from their questioning. Are questions in-



tended to arouse student interest in the lesson or topic? Do the questions develop insights or provide the teacher with new knowledge? Is the purpose to support and strengthen students' learning, to encourage their thinking to go beyond the lesson or classroom, or to stimulate critical thinking? Is the purpose to test students' preparation, or to see if objectives have been met?

### *Classroom Discourse Patterns*

The traditional discourse pattern for teachers when questioning students consists of a three-part pattern: *initiation* (teacher asks questions), *response* (students answer questions), and *reaction* (the teacher reacts by giving feedback that is praising, corrective, or expands or builds on the student response) (Burbules & Bruce, 2001). Although this tends to be the general pattern that is repeated again and again, what is important on a daily basis is how the teacher "spins" each of these elements of the pattern. In other words, the kinds of questions the teacher asks (not all questions are the same), how the students respond, and how the teacher reacts to the responses (not all responses are the same) will influence, to a high degree, the cognitive gains students make.

### *Sociocognitive Aspects of Questioning*

According to Woolfolk (2004), questioning strategies play several roles in cognition; they do the following:

- Help students rehearse information for effective recall
- Work to identify gaps in students' knowledge base
- Provoke curiosity and long-term interest
- Initiate cognitive conflict by introducing new knowledge that may contradict previous knowledge
- Serve as cues, tips, or reminders that provide cognitive guidance and facilitation

The English learner benefits from questioning because the context automatically engages the learner in using language in various ways. Listening and speaking skills are immediately activated, shifting the learner into an active role. As they ask English learners questions, teachers challenge them cognitively and linguistically, integrating language skills with academic knowledge. Students are included in the curriculum because they are not allowed to be silent; instead, they are participants in the discussion.

Involvement is particularly important because English learners are frequently relegated to the role of mere observer or voyeur of classroom interaction. If they are questioned, however, their status is sustained with their peers, because students tend to believe that those who are asked and who answer questions are high-status students. Thus, when teachers ask English learners questions, they elevate these students' status within the social system of the classroom.

### *Questions at Various Levels*

Bloom's taxonomy (1956) is a frequently used method for organizing thinking skills in the cognitive domain using a hierarchical system that ranges from lower-level to higher-level thinking skills. Table 5.7 lists the levels of the taxonomy, with a brief explanation and examples of questions within each of the levels.

table 5.7 Bloom's Taxonomy: Explanation and Questions at Each Level

Category	Explanation	Examples
Knowledge	Remembering	"What does <i>perspective</i> mean?" "Define <i>mitosis</i> ."
Comprehension	Understanding and demonstrating understanding by using one's own words	"What does the chart on page 10 suggest?" "Explain the process of mutation in cells."
Application	Applying and using information to solve a problem; usually with a single answer	"Calculate the size of this room." "What would you include in the summary of this story?"
Analysis	Critical thinking; breaking or dividing material into parts and explaining relationships; making inferences	"Who influenced Mark Twain's writing style?" "Why was George Washington chosen to be the first president of the United States?"
Synthesis	Creating a new pattern or structure using original, divergent thinking	"What would you have done if you had been Abraham Lincoln during the Civil War?" "What title would you give this book?"
Evaluation	Using criteria to making judgments; assessing the merits of an idea	"Which story do you believe to be scarier? Why?" "Why do you choose this ending?"

Lower-level questions are referred to as those that include knowledge, comprehension, and application, whereas higher-level questions require analysis, synthesis, and evaluation. The Center for Teaching Excellence–Searle (2005) suggested that lower-level questions are generally appropriate for:

- Evaluating students' preparation and comprehension
- Diagnosing students' strengths and weaknesses
- Reviewing and/or summarizing content

Higher-order questions are usually used for the following:

- Encouraging students to think more deeply and critically
- Problem solving
- Encouraging discussions
- Stimulating students to seek information on their own

Questions can also be categorized as convergent or divergent. Convergent questions tend to be lower-level questions that have only one right answer and usually deal with facts, such as

“When was the first steam engine built?” Divergent questions are viewed as being higher level and have many possible answers, such as “Which president is your favorite, and why?”

### *Questions That Match Student Needs*

How does a teacher decide whether to use high- or low-level questions? In general, this depends on which thinking skills the teacher is trying to develop. With regard to English learners, the kinds of questions asked in English should also be informed by the learner’s level of English proficiency. For example, beginning-level students should be encouraged to practice their English skills and be given opportunities for success by having low-level questions posed that require simple answers and focus on comprehension. This does not mean that students are let off the cognitive questioning hook, because teachers can ask high-level questions in the students’ primary language and challenge English learners to analyze, synthesize, and provide evaluations.

Although questions are categorized as low level or high level, this does not necessarily mean that one type of question is better than the other, particularly when the skilled teacher can use questions intentionally for English-language development. Knowing one’s students is critical, because only the teacher will know what is appropriate questioning in English for each child:

California’s English Language Development Standards and the California English Language Development Test provide useful references about appropriate linguistic expectations for English learners that can inform and guide teacher questioning while encouraging the success of their English learners.

### *Increasing Wait Time*

Wait time is another important aspect of the questioning pattern. Rowe (1974) found in her classic study that teachers wait an average of only one second for students to answer! She also found that by prolonging wait time to five seconds or longer, the length of student responses increased (short wait time, short answers). With more wait time, students used whole sentences with increased confidence, evidenced by their higher tones and increased speculative thinking. If there is a shift from student–teacher to student–student interaction, students’ questions increase; and as teachers benefit by having more time to hear responses and to think, they revise their expectations of students and begin to increase the variety in the kinds of questions they ask.

Extending Rowe’s important findings to English-learner populations, an important adaptation teachers can make in questioning English learners is to allow additional wait time for students to respond. If monolingual English speakers can make such tremendous gains by being given only four additional seconds to respond, we can only imagine how this can benefit English learners, as well as their teachers. Again, teachers need to consider students’ levels of English proficiency because beginning students may need more time to respond to a question than those more advanced in their English skills.

**Teachers’ Reactions to Student Responses.** The way a teacher reacts to students’ answers is also important, because reactions bring closure to the question-and-answer cycle and also give students feedback on the quality or accuracy of their answers. Sadker and Sadker (2003) report that nearly half of teachers’ responses or reactions to student answers are simple

affirmatives, such as “OK,” with little specific feedback provided. To this point, Woolfolk (2004) suggested the following:

If the answer is quick, firm and correct, simply accept the answer or ask another question. If the answer is correct, but hesitant, give the student feedback about why the answer is correct. . . . This allows you to explain the material again. . . . If the answer is partially or completely wrong, but the student has made an honest attempt, you should probe for more information, give clues, simplify the question, review the previous steps or reteach the material. If the student’s answer is silly or careless, it is better simply to correct the answer and go on. (p. 451)

These tips can be useful to teachers of English learners as they encourage their students to practice their language skills, because the teacher’s response focuses on what is said, not how it is said. Furthermore, English learners, like all students, need feedback that is explicit so that they can know about their progress.

### *Questioning Our Questioning*

Research reveals that teachers ask from 30 to 120 questions an hour, or 210 to 840 questions in a seven-hour school day (Sadker & Sadker, 2003). This seems reason enough for teachers to be thoughtful in and mindful about their questioning. Teachers can reflect on and examine their questioning, activities that allow them to know what kinds of questions they are asking.

The Center for Teaching Development suggests four methods for collecting feedback: self-reviewing by video- or audiotaping a lesson, inviting a colleague to observe a mini-lesson, inviting a colleague to a videotape review of a lesson, and asking students about questions asked in class. The center’s Website, [www.oir.uiuc.edu/did/docs/QUESTION/quest4.htm](http://www.oir.uiuc.edu/did/docs/QUESTION/quest4.htm), provides observation and feedback instruments teachers can use, including a sample of a student survey used with university-level students that can be adapted for elementary and secondary levels.

## Challenging Students to Perform to Their Potential

Having high expectations is an important aspect of challenging students to perform to their potential, but this may not be sufficient if teachers fail to purposefully engineer and create opportunities that extend students’ current levels of development. Faltis’s “meaning-making invite” (2001) is a useful model of how teachers can coerce learners into a new knowledge system that challenges and pushes them into a new cognitive and intellectual space: “Meaning-making invite includes (a) language *beyond* what students currently understand and use for communication about academic content and (b) language that invites students to actively participate in the construction of meaning about academic content” (p. 116). Faltis (2001) purposely used the word *coerce* because it is the teacher’s responsibility to make the learning in school enjoyable and challenging rather than boring or frustrating.

Meaning-making utilizes some of Vygotsky’s theories as well as situated learning theories. According to Faltis (2001), Vygotsky found that students could understand more and

communicate better about academic content in interaction with adults than they could on their own. Learning theory from a socially situated perspective suggests that using language and trying new things is socially motivated.

As suggested earlier, English learners must be provided ongoing daily opportunities to participate in second-language activities so that they begin to understand that language has different communicative purposes and can begin to apply this knowledge. As English learners are invited or coerced to participate in the discourse of the academic classroom,

[T]hey have to work to come up with meaning that is precise, coherent, and appropriate to the particular community. In other words they have to negotiate meaning with the teacher or peers as they grapple with new academic content. (Faltis, 2001, p. 116)

As English learners are trying to figure out what is expected of them, they are negotiating meaning, and this automatically encourages them to acquire and try out the new language they need to make themselves understood. As the negotiation of meaning continues, discourse is again sustained, challenging students to extend their current levels of development. Faltis (2001) provided the following example to illustrate meaning-making invitation:

English learner: Uh how—how you feel 'bout elephants in movie Tarzan?

Teacher: How did I like the elephants in the Tarzan movie?

English learner: Yeah, how you feel about elephants?

Teacher: How did I feel about them? Did I like them?

English learner: Yeah, how did you feel about them. Were they good or bad? (p. 118)

By interacting with native speakers, English learners are challenged to produce language that approximates English, even if they have not been previously exposed to it. The teacher as native speaker can engage students in an academic discourse that asks for clarification, checks for understanding, and paraphrases learners' language to ensure comprehension.

Interestingly, Faltis (2001) suggested that being pushed into developing new language does not promote language acquisition, but it does confirm to the learner how new language can be used to discuss topics that matter and that have meaning for them, thus challenging students to work up to their potential.

## Learning Strategies

Learning-strategy objectives were discussed earlier in the context of SDAIE. As suggested then, teachers must explicitly teach strategies that help students to think about how they learn and what steps are involved in all learning tasks.

Different learning strategies are appropriate for different content areas, just as different disciplines have different cognitive demands. Teachers should become familiar with these differences and ask, for example, "What are the strategies necessary for my students to learn to succeed in mathematics?" Teachers can then break down some of the learning demands of mathematics, recognizing, for example, that math requires adequate note taking and use of deductive reasoning. SDAIE teachers can then target these learning strategies by making them visible to their students and engaging students in opportunities to practice them during their learning tasks.

### *The CALLA Model as Strategic Teaching*

Chamot and O'Malley's (1994) cognitive academic language learning approach (CALLA) model is useful in teaching mathematics, science, social sciences, and language arts to English learners. The strategic processes emphasized in teaching content area literacy to English learners involves explicit teaching of academic knowledge, language skills, and learning strategies.

Academic knowledge is guided primarily by content standards mandated by states and districts. Language skills are those that teachers need to target with regard to the needs of their English learners. In California and a few other states such as Texas, English-language development standards have been developed that identify the specific language skills teachers should target in listening, speaking, writing, and reading activities. As teachers prepare lessons and language objectives, they need to be aware of their students' English-proficiency levels and select language skills corresponding to those levels. Finally, learning strategies involve those skills that help students learn. Chamot and O'Malley (1994) suggested that academic learning is more effective combined with learning strategies (cognitive, metacognitive, and social-affective).

### *Strategic Instructional Practices for English Learners*

Proficient, competent readers use a wide range of strategies to read; these strategies must be taught so that English learners can become strategic readers in English. Researchers such as Chamot and O'Malley (1994), in their work with English learners, suggest that language, content area knowledge, and literacy are not mutually exclusive and should be taught in an integrated, holistic manner. In teaching these strategies, teachers should explain and model and allow students to practice and accept responsibility for their learning.

This approach is collaborative and supports the teaching with integrity model proposed in this book because it is based on the assumption that students are equal partners in the teaching and learning process.

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## Service Learning

Service learning is a curricular option that teachers of English learners can use with their students because it lends itself to a community-relevant view of learning. That is, English learners who come from communities that have been historically subordinated may view schooling and learning as an opportunity to "give back" to their families and communities. Therefore, service learning is culturally congruent with many English learners, their families, and their communities. César Chávez's work is a model for leaders serving their communities, not as an obligation but as a way of life. Chávez believed that service strengthened not only the community but also those who served.

Service learning also provides opportunities for multiple experiences that benefit academic development. It helps students improve their language skills and social skills as well as their understanding of the target culture, the English-speaking community. Service-learning pedagogy connects decontextualized classroom experiences with the real world or outside experiences. Thus, as O'Grady and Chappell (2000) suggested, "service learning is an activity in which the academic and the experiential converge" (p. 209).

Service learning is not new to the U.S. educational landscape. The YMCA, for example, stands out as one example of an organization founded on the principles of community service.

More recently, AmeriCorps, the national service program founded during President Clinton's administration, created service-learning programs in K–12 and higher education settings through the program Learn and Serve America. Many high schools and undergraduate programs have established service-learning activities as a graduation requirement. Thus, service learning has become an integral part of the school curriculum.

What is service learning and, more specifically, what are its benefits? According to the National Society of Experiential Education (n.d.), service learning is any service experience that is monitored, involves intentional learning goals, and incorporates active reflection on the part of the learner. Another definition, by Jacoby and Associates (1996), suggests that service learning is experiential education in which students engage in activities that address human and community needs. Learning and development must involve structured opportunities with reflection and reciprocity as key concepts.

Service learning differs from field education and volunteerism in that the focus is on the persons being served as the main beneficiaries. Service learning that is shorter term is frequently referred to as project-based learning. An example of service learning is tutoring, in which a person may become involved in performing a service in a program already established.

The best service learning projects provide students with an opportunity to develop skills and knowledge in real-life situations and meet a real community need. They reinforce the connections between school and community and teach students how to work collaboratively with others to create change. (Díaz-Rico, 2004, p. 403)

For English learners, service learning provides numerous opportunities that benefit their learning of the English language by placing them in meaningful activities that lead to productive social and educative engagement.

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## Computer-Based Education

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Computers have altered life in the United States in many ways and have had a significant impact on pedagogy. Their appearance in schools dates back to the early 1970s (Cotton, 1991), and today it is nearly impossible to find a school that is not equipped with computers. Computers and textbooks sit side by side in many U.S. classrooms.

Cotton (1991) claims that the use of microcomputers expanded during the 1980s, and by the 1990s, U.S. schools had acquired over two million microcomputers, the number of schools owning computers increased from approximately 25 percent to virtually 100 percent, and more than half the states began requiring—or at least recommending—preservice technology programs for all prospective teachers.

The information age has arrived, and the role computers play in disseminating, processing, and accumulating knowledge will undoubtedly continue to grow. The educational microcomputer and computer-assisted instruction are here to stay. What is computer-assisted instruction, and what kinds of learning activities are associated with this method of instruction?

### *Definitions Pertaining to Computers in the Classroom*

Educators who use computers in the classroom use a diverse list of terms to describe learning activities. These include *computer-assisted instruction*, *computer-based instruction*, *computer-based education*, *computer-enriched instruction*, and *computer-managed instruction*. Several

attempted to synthesize some of the definitions. For example, *computer-based education (CBE)* and *computer-based instruction (CBI)* are the broadest terms and can refer to virtually any kind of computer used in educational settings. Table 5.8 lists computer terms used in education.

### *Benefits of Computer-Assisted Instruction*

Extensive research summarized in Cotton (1991) supports the finding that the use of computer-assisted instruction (CAI) as a supplement to traditional, teacher-directed instruction produces achievement effects superior to those obtained with traditional instruction alone. Generally, these findings hold true for students of different ages and abilities, as well as for learning in diverse curriculum areas.

The positive effects of CAI on writing have also been documented (Batey, 1986; Bialo & Sivin, 1990; Collins & Sommers, 1984; Dickinson, 1986; Kinnaman, 1990; Rodríguez and Rodríguez, 1986). The evidence seems to be favorable, particularly when teachers emphasize the teaching of writing as a process. The writing-as-process approach encourages students to engage in prewriting activities, followed by drafting, revising, editing, and final publication, with each phase receiving frequent feedback from teachers or peer editors. Thus, writing is not viewed as a mere product, or finished text, but as a process.

English learners engaged in the writing process with computer-assisted instruction can undoubtedly reap these benefits. However, using computers for drill and practice on isolated subskills such as grammar and mechanics is not associated with improved writing skills. Again, researchers suggest that desirable outcomes are obtained when computers are used as part of a holistic writing-as-process approach. Collins and Sommers (1984) suggested that "microcomputers are counterproductive when used in a theoretical vacuum" (p. 7).

CAI also positively affects reading. Soe (2000) examined the effects of CAI on reading achievement. Soe conducted a meta-analysis of 17 research studies based on K-12 students and found that CAI does have a positive effect on reading achievement.

table 5.8 Computer Terms in Education

Term	Connotation
Computer-based education	Broadest term; can refer to any kind of educational use
Computer-based instruction (CBI)	Any educational use (drill and practice, instructional management)
Computer-assisted instruction (CAI)	More frequent term used in educational settings; activities usually supplement teacher-directed activities, but can stand alone (drill and practice, tutorials, simulations)
Computer-managed instruction (CMI)	Use of computer by school staff to organize student data, make decisions about students' test performance, keep records of student progress
Computer-enriched instruction (CEI)	Learning activities in which computers generate data or execute programs developed by students to provide enrichment; more unstructured
Computer-assisted language learning (CALL)	Use of computer to teach language and to drill specific language skills



Computer-assisted instruction yields other beneficial effects. Research studies have found that learning rates increase and content retention improves (Capper & Copple, 1985). Attitudes are also affected by use of microcomputers in that students' attitudes improve toward the use of computers in education, course content, school in general, and self as learner; attendance, time on task, and interstudent cooperation also improve (Cotton, 1991).

Several researchers have examined the effectiveness of CAI in different curricular areas. Although their findings are not conclusive, they indicate that CAI activities are most effective in the areas of science and foreign languages, followed by mathematics, reading, language arts, and English as a Second Language.

The Center for Applied Research in Educational Technology (CARET) (<http://caret.iste.org/index.cfm>) reports that technology in general can be used effectively to increase the learning of lower-performing, at-risk, and learning-disabled students. Technology is most effective when students use programs that are appropriate to their own language experience; when students use technology applications selected to address their unique needs, strengths, and weaknesses; and when students use instructional programs that continuously assess individual performance by adjusting the task difficulty to the ability and experience of the student.

### *The Best Use of Computers*

How can teachers infuse technology into curriculum and instruction effectively? Table 5.9 presents recommendations provided by CARET indicating the conditions by which educators and education decision makers can most effectively integrate technology into instruction.

**Computer-Assisted Language Learning (CALL).** English learners have unique needs for computer assistance in learning English. Computer-assisted language learning (CALL) uses microcomputers to support the language- and content area learning needs of English learners. Classrooms can be transformed through the use of computer multimedia, the Internet, and the World Wide Web. CALL has infinite potential, extending instructional experiences beyond the four walls of the classroom, the local school site, or the community. CALL supports the trends recommended earlier in the discussion of language teaching, such as writing as a process.

Classrooms integrating CALL use both software programs and online resources to help students achieve their individual language goals. The Internet connects students with

**table 5.9** Effective Integration of Instruction with Technology

Type	Explanation
Align curriculum	Review and analyze the content of technology applications to determine whether new skills align with content standards.
Maximize use of technology	Enable students to acquire proficiency with the technology application prior to the onset of the content standards-based lesson.
Extend core curriculum	Support the development of instructional lessons and units that use technology to reinforce core curricula.
Integrate technology	Develop detailed plans to integrate technology as a tool to increase learning opportunities.

other parts of the world in real or delayed time (synchronous or asynchronous communication). Chat groups and listservs (electronic discussion groups on specific topics and/or resources) can connect students with their classmates, schoolmates, or students in other parts of the world. The Internet provides opportunities for students to talk to native speakers through e-mail and collaborate with other students as they develop their English skills.

Teachers can provide opportunities for students to have their own e-mail addresses or accounts (much like their own library cards in previous years). Many teachers now have students develop personal web pages, or collaborate in constructing a classroom web page. Search engines such as Google or Yahoo! help students find materials for individual research topics (Díaz-Rico & Weed, 2002).

**Brave New Schools.** Cummins and Sayers (1997) described electronic communities of learning as essential elements in creating intercultural learning networks. Their book *Brave New Schools* presents portraits of teachers who are creating learning environments that showcase the use of microcomputers to prepare their students with the intellectual and cultural resources essential for success in multicultural global communities. Equity, literacy, and praxis are themes running throughout this book.

Cummins and Sayers (1997) suggested that inequity of access to technology resources, including computer networks, mirrors the unequal distribution of other human resources in public education. Therefore, schools and communities must be vigilant about providing equal access to computers for historically subordinated student populations such as English learners, students from lower socioeconomic backgrounds, females, and Latino, Native-, and African-American student populations. If unaddressed, the “cultural digital divide” will grow.

Computers should be part of the process of developing critical literacy and of involving students in understanding and resolving social issues (Cummins & Sayers, 1997). Computer literacy should not be an end in itself, but rather part of a process of awareness, understanding, and agency, or what Freire (1970) called *conscientizao*. In “brave new schools,” computers are useful tools for engaging the individual in improving both local and global communities.

## Conclusion: Pedagogy for English Learners

In summary, pedagogy for English learners requires more than providing stimulating, high-level academic content, more than curriculum design that is relevant to the community, and more than adapted instruction that includes cognitive academic language proficiency, appropriate questioning techniques, and explicit teaching of learning strategies, although these elements are essential. English learners also need culturally responsive teaching that connects their daily lives to the lives of their future, a future that undoubtedly will involve computer technology—but a future that we hope will foster communities awash in the beauty and originality of local cultures, full of neighbors that care for and serve one another, and rich with multiple languages. This is the United States we await, and English learners will play a key role.