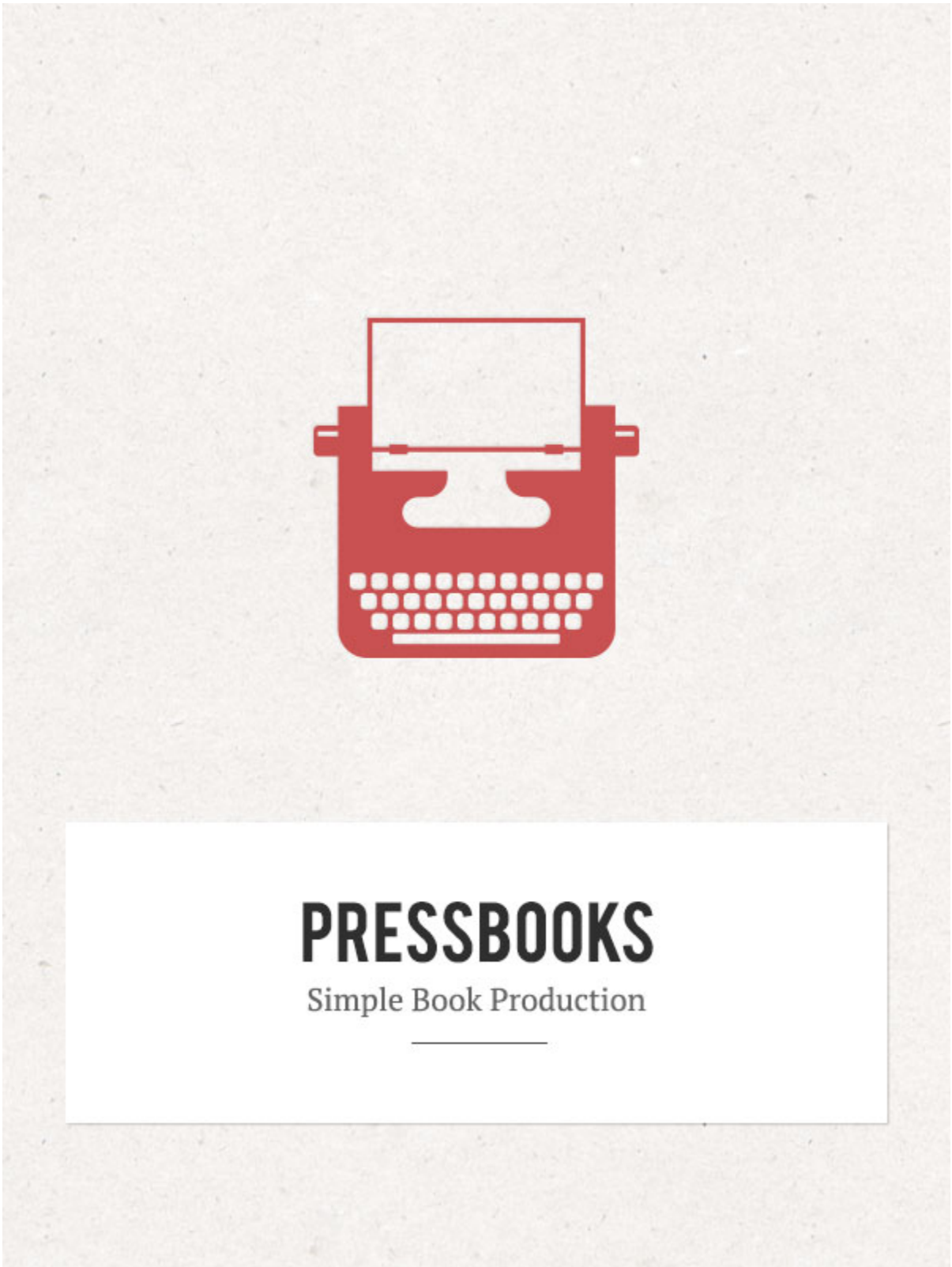
Planning Meaningful Instruction for ELLS



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Gisela Ernst-Slavit and Joy Egbert

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PLANNING MEANINGFUL INSTRUCTION FOR ELLS

Integrating Academic Language and Content in K-12 Classrooms

Gisela Ernst-Slavit
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About the Authors

Gisela Ernst-Slavit received her PhD in Bilingual/ESL Education from the University of Florida, a MS in Educational Research/Intercultural Education from Florida State University and a BS in Psychology from the Pontificia Universidad Católica del Peru. Her expertise and background in ethnographic and sociolinguistic work influences both her research and her teaching. She is a Professor at Washington State University Vancouver and Principal Investigator for ELL IMPACT, a federally funded project designed to increase the number of bilingual and ELL teachers in Washington State. Dr. Ernst-Slavit has authored and coauthored over 80 articles/chapters and 11 books, focusing mostly on effective and culturally responsive education for underrepresented and marginalized students, academic language and literacy, and teacher preparation. Her latest book, also with Joy Egbert is entitled, Views from the Inside: Languages, Cultures and Schooling for K-12 Educators. Dr. Ernst-Slavit is a native from Peru who grew up speaking Spanish and German at home and English in School. She has given numerous keynotes and presentations in North and South America, as well as in Asia, the Middle East and Europe.

Joy Egbert is Professor of ELL and Education Technology at Washington State University, Pullman. She earned her MA and PhD at the University of Arizona in Tucson, focusing on higher education teaching and English as a second language. In addition to her community college and adult basic education certifications, she has been certified as a K-12 teacher in Indiana and Idaho in Russian and English language, ESL, and education technology. She has published and presented widely in the areas of teacher education, computer-assisted language learning, and teaching methods, including Fulbright awards to Russia, Turkey, and Macedonia and keynotes and workshops in Taiwan, Singapore, China, the Czech Republic, Hungary, Afghanistan, and Japan. Her grant work includes developing an online ESL endorsement, studying the use of small robots in elementary classrooms, and working with teachers on

professional development. Her focal interest is in language learner task engagement.

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Preface

Planning Meaningful Instruction for ELLs: Integrating Academic Language and Content in K-12 Classrooms underscores the pivotal role that language and content instruction play in students' academic success. To participate in content area learning, students need to simultaneously learn the language of the disciplines. The purpose of this book is to provide a clear set of guidelines explaining how to assist English language learners (ELLs) in acquiring the content-based language they need to be successful in school.

Although our main focus is on English language learners, the strategies in this book apply to all learners. In today's standards-driven classrooms, with a heavy emphasis on communicating using disciplinary language, all students are language learners. Likewise, this book is not only for teachers of ELLs but for all content-area teachers working in diverse classrooms. Ultimately, our goal is to help educators think about issues of language and content instruction by first knowing the strengths and needs of their students and their cultural and linguistic backgrounds, and second, by being aware of the disciplinary language demands of each content area.

The instructional practices discussed in this text are linked to the most current research-based practices in the field of language education. Chapters include a variety of engaging and thought-provoking sections such as: opening classroom vignettes that contextualize the topic at hand; brief STOP and THINK and STOP AND DO sections that encourage readers to reflect on a topic, expand their knowledge on a topic, or engage in specific activities; and links to additional resources. In addition, the chapters end with a section on Extensions for Reflection and Extensions for Action. These activities can be used for classroom discussion, follow-up classroom activities, or brief assignments.

Much of this text was previously published by Pearson as *Access to Academics: Planning Instruction for K-12 Classrooms with ELLs* (Egbert & Ernst-Slavit, 2010). After copyright was released in 2018 and permission granted by the publisher to revise the text, we decided to update the book and make it an open resource. In the almost ten years since the earlier version of this book was published, we have received many emails and letters from colleagues, students, and readers commenting on how much they enjoyed the book. Throughout our presentations and professional development efforts, we have listened to suggestions and developed new resources and activities for teacher educators to use in their classes and during professional development. Below are some highlights in this new version of the book:

- It is an open resource available to educators, particularly preservice teachers, for free.
- As an open resource with a CC:BY license, educators can share, change, or otherwise use the content in ways most suited to them.
- It assumes that all teachers, regardless of their content area, are language teachers.
- It assumes that, in today's standard driven educational contexts, all students are language learners.
- It can be a focused asset as preservice teachers prepare their edTPA materials.
- It emphasizes the importance of academic language in relation to standards (e.g., CCSS).

We hope readers will enjoy and benefit from this book. We have tried to keep it engaging, inspiring, accessible, and consistently organized. By writing this open textbook, we wanted to provide students and educators with a useful and practical reference at no cost. Enjoy!

Gisela Ernst-Slavit, Ph.D

Joy Egbert, Ph.D

I

Part One: Understanding the Roles of Language and Content

Chinadoll

Torn between two cultures
Town between two worlds
Into a sea of Barbies
A little Chinadoll is hurled

I'm lucky to be in America
The land of the brave and the free
Many children around the world
Don't have it as good as me

Our parents bring us here
To the land of opportunity
To learn everything there is to learn
And be the best that we can be

Mommy tells me that good Chinese girls
Are quiet and polite
And that good Chinese girls study
All day and every night

But I'm not a perfect student
Sometimes I'm too loud
It's hard to live to up their expectations
It's impossible to make them proud

I don't think I'm growing up
Exactly how they planned
They ask, "Why do you act so American?
You're CHINESE, don't you understand?!"

And the other Asian kids
Say the same kind of stuff
Years of prejudice and pain
Have made them cold and tough

"Don't try to act white,
You'll never be like them
Different blood flows through your veins
From a different place you stem."

I don’t know how I’m supposed to “act”
American or Chinese
There are too many voices yelling
Too many people I can’t please
“Be proud to be American!”
“Shout out Asian Pride!”
It’s hard to the suppress the screaming
Building up inside

Sometimes I wonder
If somebody might
Flick a little switch
And turn off all the lights

People won’t be so quick to judge me
If my color they can’t see
And maybe for a little while
I could just be me.

By Kelly Chen, used with permission

Stop and Reflect
Reflect on the content of Kelly’s poem as you read the chapters in Part One. How does the content of her poem relate to the ideas in the chapters?

1

Chapter 1: Academic Success: Learning the Language of School

Key Issues

1. The language of school is a distinct and multifaceted type of English used in school settings.
2. The language of school includes both social and academic languages.
3. Social language is the language used mostly in everyday, casual interactions.
4. Specific linguistic features associated with different content areas characterize academic language.
5. The basic interpersonal communicative skills (BICS) and cognitive academic language proficiency (CALP) distinction highlights some of the differences between social and academic language.

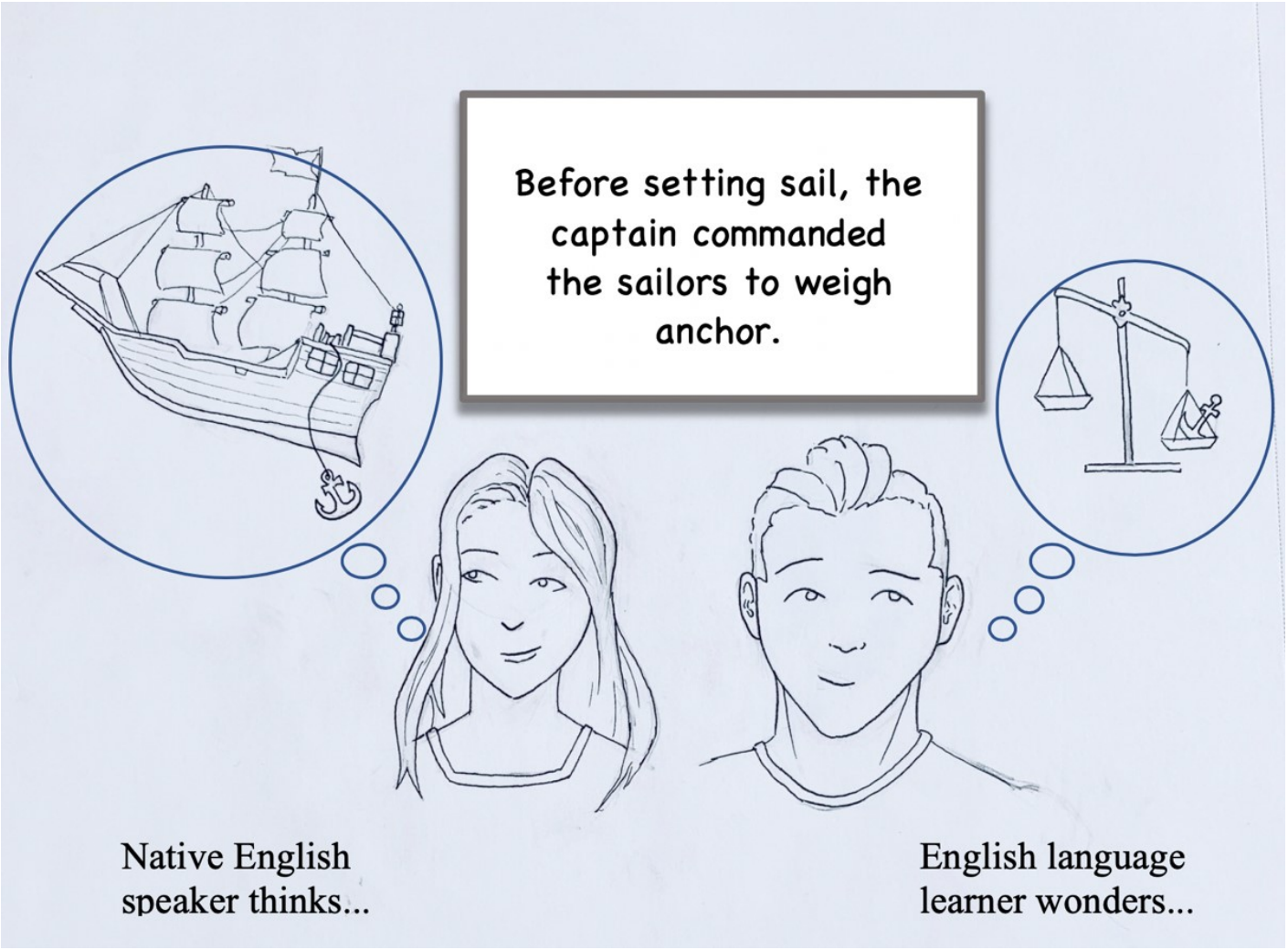

Figure 1.1 Illustration by Arthur Slavit.

STOP AND THINK

History class: *Before reading this chapter, think about what the cartoon above implies about language learning and language learners.*

Even before children begin their formal schooling, they have experienced sounds, languages, concepts, people, places, and ways of being, thinking, and doing. For some children, going to school for the first time means learning to follow directions, take turns, clean up their space, form a line, and share the attention of one adult with about 20 other children. For other students, particularly English language learners (ELLs)Other labels and acronyms used to describe students who are learning English as a second, third, or additional language include: limited English proficient (LEP) student, English as a second language (ESL) learner, English learner (EL), emergent bilingual (EB), English as an additional language or dialect (EAL/D) learner, second language learner, non-English speaker (NES), non-native speaker (NNS), and limited English speaker (LES), among others., the learning curve is steeper, because they have to learn content and ways of doing school in a language that they have not yet mastered, all within the context of an unfamiliar culture. As the chapter-opening cartoon illustrates, an idiomatic expression used by a history teacher can leave an English learner confused not only about the meaning of a particular term or phrase but also about the gist of the entire narrative.

However, words and phrases are only one aspect of what ELLs have to learn. As the list below illustrates, students need to acquire many other pieces of knowledge in order to navigate the schooling process successfully. For example, during the first days of school, students need to learn about each of the following:

- **The school bus:** When and where to get on and off, how long the ride is, what rules apply while riding, meeting unknown students of many ages, leaving home.
- **School supplies:** Getting a backpack or bag, bringing supplies to school.
- **New routines:** Carrying papers back and forth to school, what to do if parents do not meet the bus, completing homework by a deadline.
- **School bells:** Recess, fire drills, schedules.
- **The people and the school:** The names and titles of people, rules for hallways, location of their homeroom or classroom and other places, for example, the library, music room, gymnasium, cafeteria, and nurse's room among others.
- **Classroom rules and procedures:** When and where to talk, sharpen pencils, ask for help, offer an answer, turn in homework, etc.
- **Lunch procedures:** "Hot" or "cold" lunch, where to obtain codes or tickets for hot lunches.
- **Recess routines:** Rules, length of time for recess, equipment (balls, slide, swings).
- **Academic content:** Life cycle of a frog (science), addition (mathematics), the founding of the United States (social studies), poetry (English language arts).

As most readers will realize, this is an extensive but not exhaustive list because there are many other aspects of schooling that students need to learn in order to fully participate in and benefit from their educational experiences. To ELLs with prior or interrupted education in their countries of origin, these extra and often unfamiliar aspects of schooling can add layers of anxiety and confusion to their load of what to learn—sources of concern not experienced by children familiar with the U.S. school system and culture.

STOP AND DO

What students need to learn: *What else do students need to learn the first few days of school? Add your own ideas to the list above.*

The Language of School

The language of school is a "distinct, multifaceted type of English" primarily used in school settings (Gottlieb, Katz, & Ernst-Slavit, 2009, p. 10). It is characterized by a broad range of language competencies that English learners must gain in order to fully participate in classroom activities and function as accepted and valued members of content-centered communities (Gottlieb & Ernst-Slavit, 2014; also see Chapter 2 in this text for further discussion of these competencies). As students develop competence in using everyday, **social** English to interact, they must also acquire the **academic** language associated with each specific content area (see Chapters 8–11 for examples). As Figure 1.2 depicts, the language of school is comprised of both social and academic language **proficiencies**.

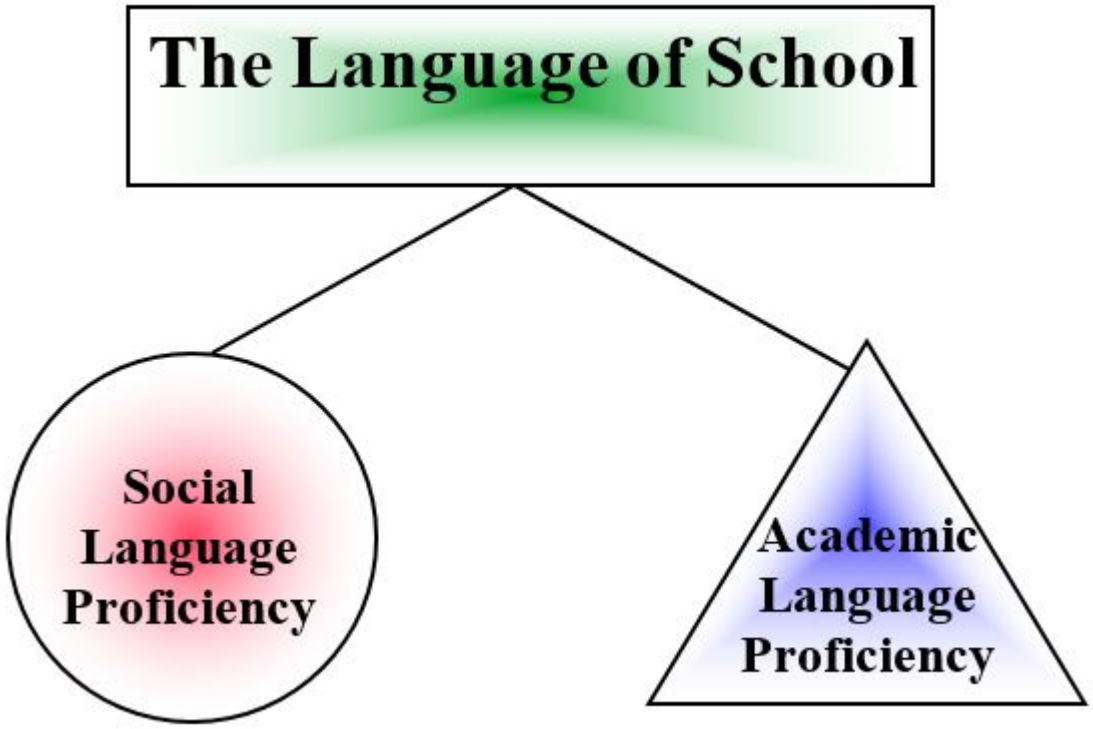

Figure 1.2 The language of school

In addition to having many other functions, such as social networking and socializing students into classroom norms and societal expectations, school is one location where children learn language. According to Halliday (1993), students learn the use of language, through language, and about language. These three aspects and pertinent examples are presented in Figure 1.3.

Language Learning	General Examples	School-based Example(s)
1. The **use** of language	How to: • listen • speak • read • write in order to reach goals • registers or specialized varieties of language	**Ways of interacting:** "Mrs. Pérez, I need help with my biology assignment." **Different registers**: "Adopt one of the two sides and prepare a statement to support your decision"

2. **Through** language	Learning all about the world inside and outside the classroom	**Expectations:** • **Academic:** "When answering the math story problem, show all of your work, not just the final answer." • **Behavioral**: "Do not run in the hallways," "No talking during a test," "Eyes on your own paper."
3. **About** language	• What are the differences among languages • Historical aspects of language • Cultural influences on language	**Genres of printed materials:** autobiographies, diaries, dictionaries, encyclopedias, fantasy, letters, textbooks Parts of speech: subject, verb, object, noun, adjective, adverb

Figure 1.3 Types of language learning in school.
To fully participate in school, English language learners need to develop a variety of registersIn the study of language, a register is a variety of a language used for a specific purpose or in a particular social context. to benefit from every aspect of schooling. For example, the language you use with your friends during a ballgame might be very different from that you use during a job interview or that used by an auctioneer at an estate sale. There are also different written registers of English. The following three samples have been taken from different sections of a local newspaper.

1. "Standard on every 2010 MKT is Lincoln's signature design—complete with a split waterfall grille, a beveled chamfer along the vehicle's shoulder line, a flowing cantrail that frames the greenhouse and full-width horizontal taillamps that span the subtly curved weight-saving magnesium liftgate that adds visual character while protecting generous rear cargo space."
2. "Pinch-hitter Mike Sweeney kept the ninth inning alive with a two-out double to deep right-center field. Ichiro then jumped on the first pitch from Rivera for his 10th homer of the season and second straight day with a game-winning hit."
3. "Plaintiff alleged that defendant did hit, beat, pummel, cuff, and mutilate plaintiff, and did damage and/or destroy valuable camping equipment belonging to plaintiff."

Awareness of different registers is important because it allows us to predict what type of language is expected according to the context or social situation. In schools and classrooms, this awareness allows students to participate appropriately in conversations with others whether they take place in the gym, the science lab, or during a high-stakes standardized test. Registers include social language, which is used to interact in the classroom and school settings, and academic language, which is needed to obtain, process, and construct meaning, and to provide content-area information. The following pages reveal that social and academic languages are very distinct; however, both types of language are very much needed in the context of school.

STOP AND THINK

Before reading further, try to predict what the important differences between social language and academic language might be, based on your experiences and current understanding of language.

Social Language

Social language is the language used in everyday, casual interactions. It is the language used at the grocery store, when ordering a pizza by phone, or when chatting with family and friends. It is generally accepted that English language learners can reach a functional (but not necessarily fluent) level of social language competence in approximately two years (Cummins, 2005).
While social language is the speech used most often during recess, in the hallway, and outside school, it is also relied on heavily in the classroom. Simply stated, social language provides a foundation on which academic language and literacy can flourish.

STOP AND DO

Brainstorm a list of ways students might use social language in a day. Include as many examples as you can.
Figure 1.4 depicts three important aspects of social language that deserve attention: everyday, intercultural, and instructional.

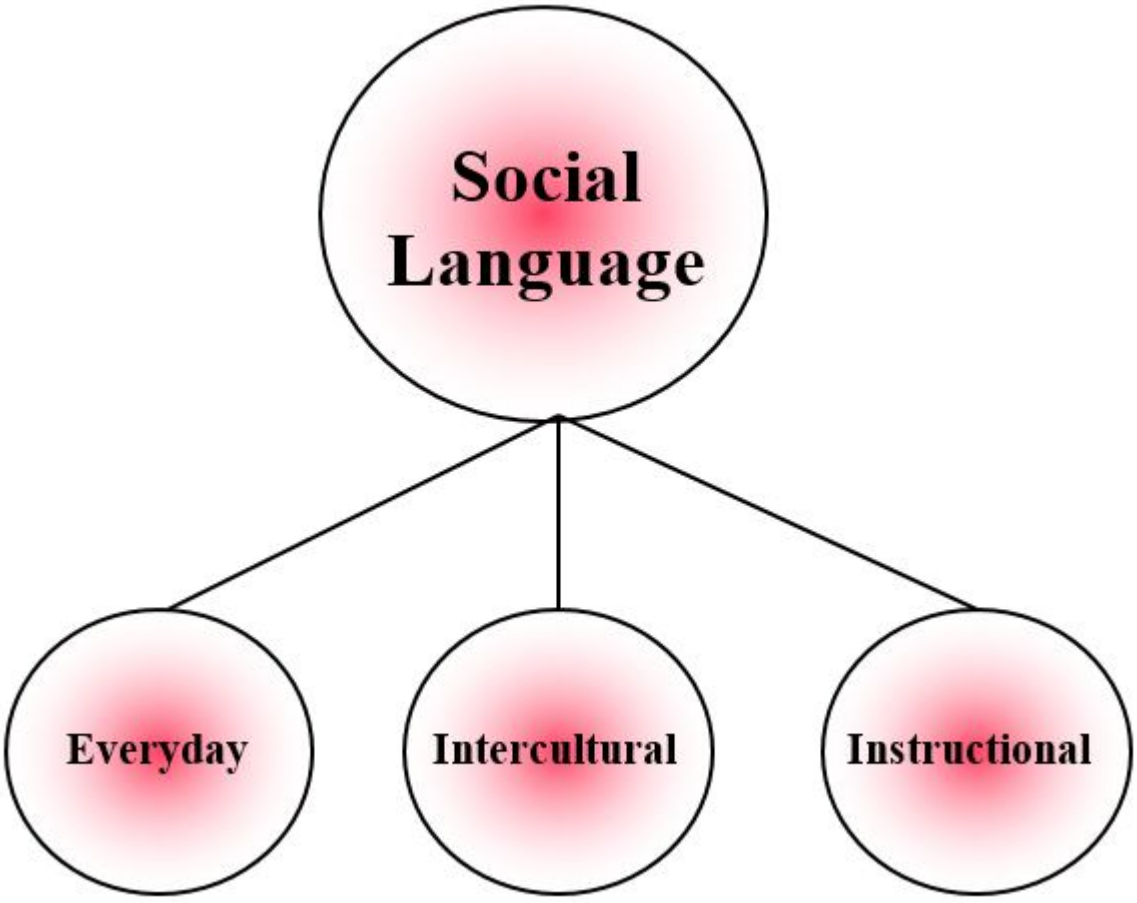

Figure 1.4 Social language.
While distinctions among these three aspects of social language are not precise, a description of each aspect of social language is discussed below. Figure 1.5 contains pertinent examples.

Everyday Aspects of Social Language

The kind of language used in the cafeteria, at recess, or with friends at home is very much needed in the classroom. For ELLs to participate successfully in classroom activities, they must learn how to ask

where to find the cafeteria, how to check out a book, and where to wait for the bus.

Intercultural Aspects of Social Language

As U.S. school populations become increasingly diverse, English language learners must also learn how to interact appropriately and effectively in cross-cultural situations. Consider, for example, the common command, “All eyes on me.” This phrase may be linguistically challenging for a newcomer, and it may also be culturally uncomfortable. Students from some cultures are taught to look down out of respect when an adult speaks to them. Expecting or forcing English learners to transgress their families’ cultural norms and values can lead to increased stress and conflict between the home and school.

Instructional Aspects of Social Language

English learners must acquire the nontechnical varieties of English used in classrooms to engage in classroom learning routines. Even ordinary classroom communication, such as listening to directions, requesting clarification, and understanding when it is appropriate to raise one’s hand or sharpen a pencil can present major challenges for students who are not familiar with the culture of the school.

Social Language	Examples
Everyday	“This is a great book! You should read it.” “I left my lunch on the bus.” “Will you teach me how to play kickball?”
Intercultural	“Please, sit down criss-cross applesauce.” “When is your family carving pumpkins? “What is henna? I thought that was just brown writing on your hands.”
Instructional	“Please take out a piece of paper and a pencil.” “You may sharpen your pencils before school, after recess, and during snack time.” “You may now use your tablets.”

Figure 1.5 Aspects of social language.
Figure 1.5 shows why the three aspects of social language are imprecise and may appear to be porous or permeable categories. Another way to think of these aspects is to ask the question, “What is the purpose of the language being used?” If language is used in the service of mundane tasks, it is probably everyday social language. If it facilitates successful cross-cultural communication, it can be recognized as intercultural language. If social language is used to accomplish educational tasks, it is instructional in nature.

STOP AND DO

*List the aspects of language that you think comprise **academic** language. After reading the following section, recheck your list and add anything you may have missed.*

Academic Language

When many educators think about the term **academic language**, the **vocabulary** specific to certain content areas immediately comes to mind. Unquestionably, vocabulary is one component, but as Figure

1.6 illustrates, academic language is comprised of more than words or short phrases.

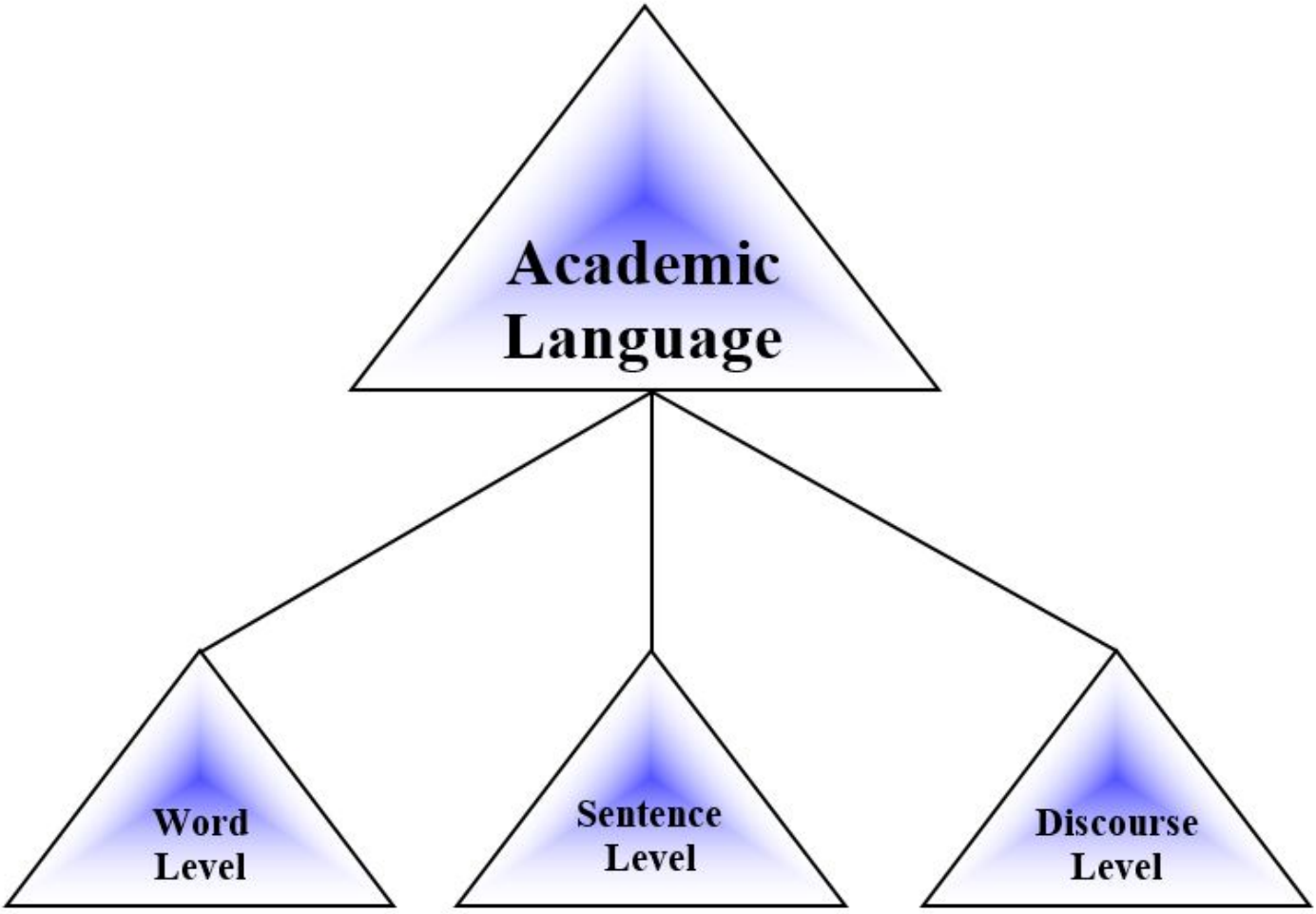

Figure 1.6 Academic language

While the language education community does not have an agreed-upon definition of the construct of academic language, there is agreement among researchers and practitioners about its centrality in the education of all students. In this volume we use the term "academic language" to refer to *the language used in school to acquire new or deeper understanding of the content and to communicate that understanding to others* (e.g., Bailey & Heritage, 2008; Gottlieb & Ernst-Slavit, 2014; Zwiers, 2008). Since academic language conveys the kind of abstract, technical, and complex ideas, processes, and phenomena of the disciplines, it allows users to think and act, for example, like mathematicians, scientists, and historians (Gottlieb & Ernst-Slavit, 2014).

Academic language is the language of textbooks and materials, most classroom talk, tests, and the tasks given to students. This unique register includes multiple, dynamic, and interrelated competences (Scarcella, 2003) that require the use of a wide range of specific **word/phrase level** items, **sentence level** structures, and **discourse** level features. Figure 1.7 presents descriptions and examples of the dimensions of academic language. The ensuing discussion of the dimensions of academic language—vocabulary, grammar, and discourse—includes examples organized by content area.

Aspects of Academic Language	Description	Examples
Word/Phrase Level	Individual words or short phrases	Constitution, essay, microscope, symmetry

Sentence Level	Syntax, mechanics, sentence and paragraph structure	Punctuation, cause and effect, topic sentence
Discourse Level	Cohesion and coherence in texts and across genres	Lab reports, development of theme, ellipsis, word problems

Figure 1.7 Dimensions of academic language.

STOP AND DO

Lists of general academic vocabulary can be found in publications and on websites from school districts, learning centers, and publishing companies. See, for example, http://www.u-46.org/roadmap/dyncat.cfm?catid=246Fo, http://esl.fis.edu/vocab/index-a.htm, and, http://simple.wiktionary.org/wiki/Wiktionary:Academic_word_list. *If you are interested in a particular topic, search for specific pertinent academic vocabulary.*

Word/Phrase Level

This level consists of words and phrases, including (1) **general academic vocabulary** that students may encounter in a variety of content areas, (2) **specialized academic vocabulary** that is specific to a content area, and (3) **technical academic vocabulary** necessary for discussing particular topics within a content area. Figure 1.8 displays examples of these vocabulary types categorized by content area.

	General Academic Vocabulary	**Specialized Academic Vocabulary**	**Technical Academic Vocabulary**
Language arts	Ideas, punctuation, sentence, title	Alliteration, antagonist, prologue, setting	Assonance, onomatopoeia, paradox, synecdoche
Mathematics	Addition, bar, line, table	Angle, divisor, equivalent, three-dimensional figures	Bivariate, data, quotient, **visual fraction model**, zero property of multiplication
Science	Cause, mind, sun, wall	Habitat, hypothesis, nucleus, ribosomes	Endoplasmic, heteronormative, rarefaction, telophase
Social studies	Fact, land, pact, race	Adapt, bias, scale, theocracy	Divine right of kings, Magna Carta, Trojan horse, Parliament

Figure 1.8 Types and examples of words/phrases by content area.

Sentence Level Features

In addition to words and phrases, each content area has unique ways of organizing and presenting language at the sentence level. The complexity of these language structures may be recognized more easily in written form, such as those found in school content-area textbooks. Figure 1.9 provides examples of particular syntactic (grammatical) features that have unique uses in particular disciplines.

Content Area	Examples of Academic Language at the Sentence Level
Language arts	Allusions, hyperbole, prepositional phrases, relative clause, sensory imagery
Mathematics	Formulas, significance of prepositions (e.g., *divided by* versus *divided into*), logical connectors, comparative structures
Science	Complex noun phrases, grammatical metaphor, passive voice, syntactic ambiguity
Social studies	Causative signals, historical present, multiple forms of past tense, sequence words

Figure 1.9 Examples of academic language at the sentence level by content area.

Discourse Level Features

Oral or written language is also organized in larger forms, such as paragraphs, thesis papers, or speeches. **Discourse** refers to these larger bodies of language and how they are both coherent and cohesive. Forms of discourse are categorized into genres, such as those displayed in Figure 1.10. Readers may look at the lists in Figure 1.10 and wonder why an item such as “speeches” was included in social studies but not in language arts. The lists in the figure are not exhaustive nor are the content-area categories exclusive.

Content Area	Examples of Discourse Level
Language arts	Autobiographies, plays, scripts, persuasive writing, editorials, newspaper articles
Mathematics	Story problems, graphs, proofs
Science	Lab directions, lab reports, writing in classroom science journals and notebooks
Social studies	Historical diaries, media reports, speeches, folktales from around the world

Figure 1.10 Examples of discourse across content areas.

It is important to emphasize that academic language involves more than terms, conventions, and genres. In other words, the teaching and learning of academic language requires more than learning a variety of linguistic components. It involves cultural knowledge about ways of being in the world, ways of acting, thinking, interacting, valuing, believing, speaking, and sometimes writing and reading, connected to particular identities and social roles (Gee, 1992, p. 73).

While this book offers compartmentalized information regarding specific aspects of language, it also acknowledges the importance of considering a host of other factors that will enhance, challenge, or override the teaching, learning, and assessment processes of academic discourses (see Chapters 2 and 3). Bartolomé (1998) warns educators of the dangers of not acknowledging that some students from minority cultural, linguistic, and racial groups might have limited access to academic discourses. For these students, school might be the only setting where they have opportunities to encounter and acquire the language of school, which may affect the length of time needed for them to become proficient users of academic language.

The Developmental Nature of Academic Language

Academic language is developmental in nature, with increased complexity and sophistication in language use from grade to grade (Gottlieb & Ernst-Slavit, 2014). In other words, what may be considered academic language for an elementary student becomes part of the everyday language of a high school student. In addition, we must consider academic language and social language as part of a continuum where different skills are involved. Along these lines, social language relies heavily on oral language, namely speaking and listening, while academic language requires more abstract and technical skills in reading and writing. The example below from a Grade 4 classroom studying of the concept of "trading" during 19th Century Westward Migration illustrates how social and academic language can be understood along a continuum (see Ernst-Slavit & Morrison, 2019 for more information about this unit).

Language Mode	Text	Context
Oral	Like, we, I give you something, um, you give me something	Student telling partner during Think, Pair, Share.
	OK. Let's say me and Karl are trading. I give him a block of wood and he gives me some molasses or something.	Student answering teacher's prompt.
Written	"-Trade was very important during this time. -The transcontinental railroad increased the trading of goods and services."	From student-produced PPT.
	"The act or process of buying, selling, or exchanging commodities, products, or services, at either wholesale or retail, within a country or between countries."	Definition of trading found online and read by the students.

Figure 1.11 Language, text, and context in social studies.

A Comparison of Social and Academic Languages

While English language learners may become competent social language users in one or two years, it takes a minimum of five to seven years of "**sustained institutional support** for students to access and gain command of the academic registers needed for success in school" (Cummins, 2005; as referenced in Gottlieb et al., 2009, p. 18). Figure 1.12 illustrates how terms, phrases, and sentences can take different forms when they are used within academic settings.

Social Language	Academic Language
The rocket took off late.	The launch of Apollo 13 was delayed.
Live	Survive
Can I eat this mushroom?	Is this mushroom edible?
The country didn't have any money.	Government funds were depleted.
This is right.	This answer is correct.

Without purpose.	Desultory
The same	Equal

Figure 1.12 A comparison of social and academic language.
To achieve academic success, students must also understand and produce academic language. Also referred to as **academic English, disciplinary language**, or **content-specific** language, **academic language** is a variety or register of English that is very different from social language. It varies by content area and often involves difficult vocabulary incorporated into texts densely packed with meaning (Bailey, 2006; Scarcella, 2003; Schleppegrell, 2013; Snow & Uccelli, 2009; also see Chapters 2, 8–11 in this text).
Robin Scarcella and Russell Rumberger (2000) identify five main differences between social and academic language (see Figure 1.13).

Aspect of Proficiency	Social Language	Academic Language
Language domains	Relies on listening and speaking.	Relies on reading and writing.
Accuracy	Minor errors are acceptable.	Requires a high standard o accuracy in grammar and vocabulary.
Language functions	Relies primarily on narrative.	More complex, such as persuading arguing, interpreting, hypothesizing, etc.
Cognitive demands	Often less demanding and highly contextualized.	More demanding; must rely on prior knowledge of words, grammar, and conventions.
Range of knowledge	Requires smaller vocabulary.	Requires knowledge of over 20.000 word forms.

Figure 1.13 Differences between social and academic language.
As suggested by Scarcella and Rumberger (2000), there are many differences between social and academic languages. For students to succeed in the content areas, they need to rely on a broad base of language, content, and background knowledge; access information with fewer contextual clues; produce accurate oral and written texts; utilize higher-order thinking skills; and access and communicate information via oral and written texts. These requirements are challenging for all students, but more so for those learning English as a second language.

The BICS and CALP Distinction

Within the discussion of academic and social languages, we must refer to the influential work of Canadian linguist Jim Cummins who, in 1984, coined two acronyms commonly referred to in second language education: basic interpersonal communication skills (BICS) and cognitive academic language proficiency (CALP) (Cummins, 1984). This model proposes an explanation of why young English learners who are fluent in social English may have difficulties in academic contexts. The distinction Cummins draws between BICS and CALP is akin to the difference between everyday (e.g., playground, hallway) and more formal (e.g., classroom, academic) language.
While BICS refers to the development of conversational language, CALP refers to the academic dimension of language necessary for school success. For example, BICS would be used for talking with a peer during lunch, but CALP would be used to provide a summary of Dostoyevsky's *War and Peace*, to

write a report on photosynthesis, or to take a content-area test. These academic tasks often have little contextual support or few clues that can help students construct meaning. Cummins argued that students who have not developed CALP in either their native or second language suffer a real academic disadvantage. Figure 1.14 depicts BICS and CALP along two continua, which form a grid.

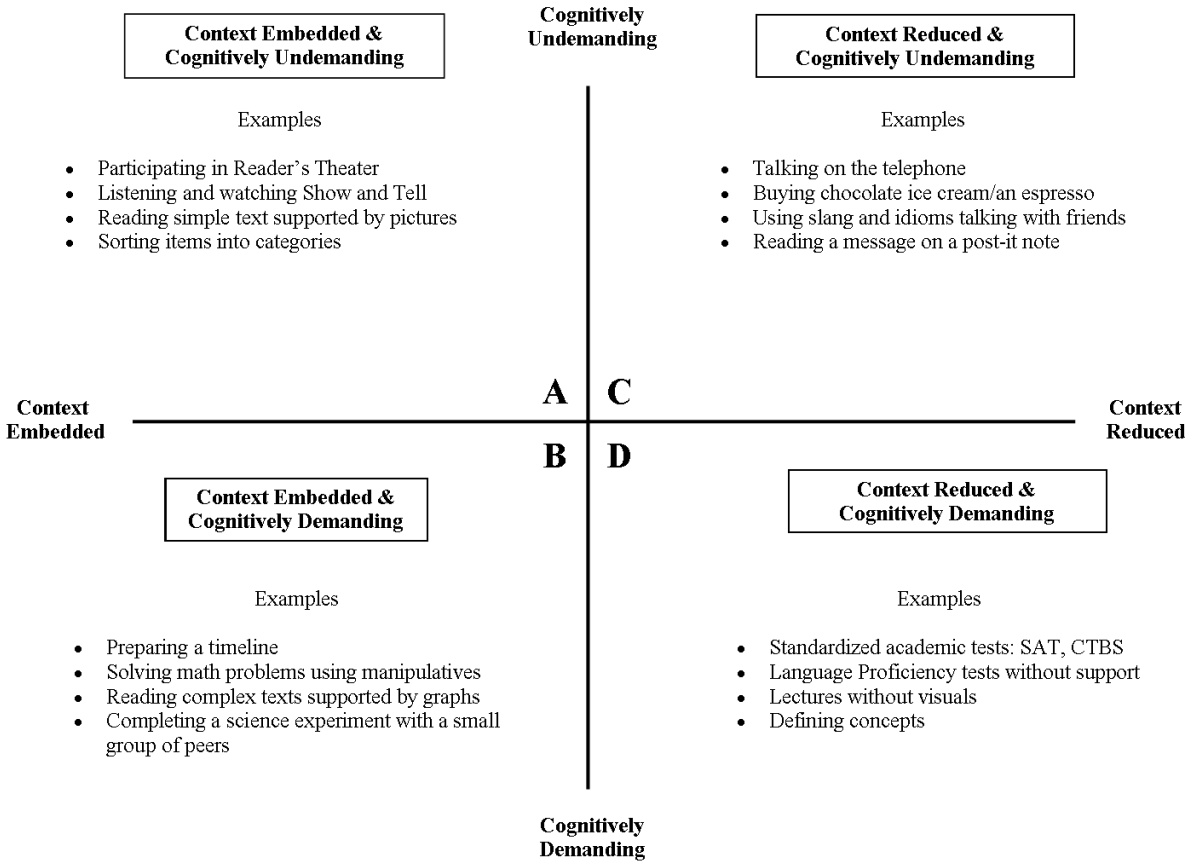

Figure 1.14 Cummins's quadrants. Adapted from Cummins (1981).

Activities above the horizontal continuum (quadrants A and C) fall into the category of BICS; that is, they do not involve a high degree of cognitive challenge and they generally take place in highly contextualized environments. On the other hand, activities below the horizontal continuum (quadrants B and D) are more abstract and cognitively demanding.

The left side (quadrants A and B) of the figure includes activities supported by contextual clues that aid understanding. For example, if third-graders are studying objects in space as part of a unit on the solar system, it would be helpful to use planet models or cutouts to visualize the processes and interactions of Earth's systems and other objects in space.

Activities on the right side (quadrants C and D) are not aided by contextual clues beyond those embedded in the language. Continuing with the example of third-graders studying objects in space, one alternate way for these students to explore objects in space is by reading from a science text with no illustrations.

This framework suggests that, in classrooms where there is a high level of student success, instruction often takes place in quadrant B, where activities challenge students academically and are often scaffolded by the use of supports to enhance understanding. However, it is imperative for educators to

prepare students to manipulate language in Quadrant D because most of the standardized and non-standardized assessments currently fall in this quadrant. In other words, most high-stakes tests require students to perform at high levels of cognitive activity and will have little or no additional contextual support beyond linguistic cues.

STOP AND THINK

BICS and CALP: Cummins's framework has been used to ground both language learning research and teaching. Pause and think critically about this framework. Do you have any questions about its development or use?

Critiques of the BICS and CALP distinction. While Cummins's BICS and CALP framework has been useful in educational settings by putting forward a construct that brings attention to the development of academic English, it has also received some criticism from researchers and scholars in the field. We offer a brief review of some of the major criticisms regarding the BICS/CALP distinction.

First, some authors believe that "decontextualized language" does not exist. Cummins defines CALP as "decontextualized" language, that is, language that has been stripped of social context. For many (see, for example, Bartolomé, 1998; Gee, 1990), language is always contextualized. No text, oral or written, ever exists independently from a context because words, symbols, and phrases rely chiefly on linguistic and textual cues as well as on cultural understandings. For example, the term *quadrilateral* comes from the Latin *quadri* ("four") and *latus* ("side"). To understand this term, you need an understanding of Latin terminology or knowledge of mathematical terms, or you must know about the famous four fortresses supporting each other during the Austrian rule of northern Italy. Yet the term itself holds linguistic clues.

Terms from everyday language may have additional clues beyond linguistic aspects. The following example takes place in a high school cafeteria. Arthur asks Leia, "Have you seen Max? Two minutes ago he was sitting at that maroon table in the corner" (he then points to a specific table). In this case, there are a variety of clues that aid understanding including: pointing, verbally signaling a location (e.g., in the corner), indicating a time (two minutes ago), and describing a characteristic of the table where Max was sitting (maroon). Even if Leia does not know the meaning of *maroon*, other clues will help her understanding.

A second criticism of the BICS/CALP distinction is that it does not provide educators with sufficient information about the diverse aspects of CALP and how to help students acquire it (Scarcella, 2003). In other words, educators can benefit from having explicit information about the diverse aspects of CALP. Without additional information, many educators equate CALP with academic vocabulary alone.

Finally, other critics challenge the notion that students acquire BICS in two years and CALP in seven years (e.g., Scarcella, 2003). On the contrary, many learners who are not exposed to academic English speakers in their homes, schools, and neighborhoods do not acquire academic language within this relatively short time period. For several years, McSwan and Rolstad (2006) and Edelsky (2006) have questioned the BICS/CALP distinction because it promotes deficit thinking: it focuses on the low cognitive/academic skills of students. Instead, or in addition, educators are encouraged to consider the skills, abilities, and funds of knowledge students bring with them from their families, cultures, and native countries.

In sum, while the BICS and CALP distinction has made an enormous contribution to our understanding of the differences between social and academic language in classrooms, it has also received some criticisms. In the following section, we explain how Cummins's BICS and CALP distinction relates to the language of school approach discussed in this text.

STOP AND DO

Read a response to these critiques by Jim Cummins, "Putting language proficiency in its place: Responding to critiques of the conversational/academic language discussion" at https://esltaggart.files.wordpress.com/2013/04/research-article_-j-cummins.pdf.

Connections between the BICS/CALP Distinction and the Language of School

Although there are obvious similarities between Cummins's BICS/CALP distinction and how we discuss the language of school, for example by looking at social and academic language, there are fundamental differences. First, we define academic language as a complex type of discourse that necessitates the use of multiple and interrelated competencies, including a broad range of discrete skills (e.g., reading, understanding vocabulary). Educators need to help English learners learn these competencies and skills beginning in primary school.

Second, we view social language as the foundation on which academic language is built, not as separate but as symbiotic processes in which these different types of languages are always developing and changing. For example, while we have highlighted the intercultural dimension of social language and explicitly identified specific syntactic features of academic language, we acknowledge the intercultural nature of academic language as well as the grammatical rules that govern face-to-face interactions. In other words, social language has specific words and phrases, syntactic features at the sentence level, and discourse characteristics just as academic language does. We focus on academic language in this text because of its crucial link to academic achievement.

Third, social language is not only the language of the playground; it is much needed in the classroom. Take, for example, the daily routines a fifth-grade teacher engages in with his students at the beginning of the day by checking in, going over the calendar, and giving a two-minute Daily Homophone Sprint. Likewise, social language is used by the math teacher who at the end of her math class tries to extend the content of her lesson by making connections to students' everyday experiences.

Finally, language provides some of its own context. What is often decontextualized from students' backgrounds and experiences are many of the activities that students are asked to do in a language that they have not yet mastered. These activities may include topics that are completely removed from their past and present lives and possibly irrelevant for their future.

Conclusion

The language of school is a distinct and complex type of English used in classrooms and schools. It involves different kinds of registers. On the one hand, we have social language, that is, the language used in everyday, casual interactions (e.g., playground, neighborhood). Academic language, on the other hand, is the language needed to acquire and demonstrate knowledge of content area material. It includes not only vocabulary but also distinct sentence level structures and discourse features that may be specific to each discipline.

Educators often use simplified texts (both oral and written) with their English learners as a way of making the content accessible for students. This practice, however, might deprive students of opportunities to be exposed to and learn the specific, connected discourse that characterizes content specific language. In addition, simplified texts might not provide students with the necessary information required to understand the material and to successfully demonstrate understanding of the topic at hand. For English learners to succeed in school, they need to become skilled users of social and academic language features for each content area. Chapter 2 discusses the factors that influence how students acquire these language features and how they affect school success for ELLs.

STOP AND THINK

History Class: Look back at the chapter-opening cartoon and your reply to the Stop and Think feature following it. How does your answer about the cartoon's meaning change as a result of reading this chapter?

Extensions

For Reflection

1. *Reflect on student opportunities*. List all the ways you promote academic language in your classroom (or could, if you are not currently teaching). Do English learners have a variety of opportunities to hear, read, and use academic language?
2. *Reflect on word meanings*. List some everyday words, like *table, tree, plot,* and *column,* that have additional specific meanings in a content area. What are some activities that can be used in a classroom to allow students to practice and use those terms within an academic context?

For Action

1. *Compare social and academic language*. Stop by the playground, or anywhere students are socializing informally, and note the language they use (at the word/phrase, sentence, and discourse levels). Then observe the language used during content area instruction in a classroom with the same children or in another classroom with children of the same age. Describe the differences that you notice and explain what these differences imply for language learning.
2. *List discourses that are required by the standards*. Find the standards for your grade level and/or content area. List the different kinds of discourses, texts, and genres that students are required to know and use. Discuss how these differences might be described and presented to students effectively.

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2

Chapter 2: Language Proficiency and Communicative Competence

Key Issues

1. Language proficiency is multidimensional and entails linguistic, cognitive, and sociocultural factors.
2. As students learn a second language, they progress at different rates along a continuum of predictable stages.
3. CAN DO Descriptors depict what students can do with language at different levels of language proficiency.
4. Communicative competence involves more than linguistic or grammatical competence.
5. Native languages, cultures, and life experiences are resources to be tapped and provide a solid foundation for learning language and content.

As you read the scenario below, think about English language learners (ELLs) you may know. What are their language proficiency levels? How is instruction planned to address their different content and language needs? Reflect on how knowledge of their English language proficiency might help teachers better address their unique needs and tap their strengths.

Scenario

Rudi Heinz's head was swimming: state content standards, national content standards, state English language development standards, Teachers of English to Speakers of Other Languages, Inc. (TESOL) English language proficiency standards, WIDAWorld-Class Instructional Design and Assessment (WIDA) Consortium consists of 40 partner states, all using the same 2012 amplification of the English language development standards. You may find the list of WIDA states at https://wida.wisc.edu.standards, district mandates, mandatory curriculum. It was becoming overwhelming to try to fit all of the different and sometimes conflicting objectives together into a coherent lesson.

"How can I possibly teach all of this? Why do I have to worry about English language development standards anyway?" moaned Rudi to himself. "That's the English department's job—or the ELL teacher's job—not mine! I teach history!"

Suddenly the picture of a bumbling juggler (with himself in the lead role) trying to add one more item to his routine sprang into his mind. Like many others, Rudi was a creative guy with a passion for teaching. Sure, stress affected his ability to be creative, but he refused to give up. He drew courage, strength, and inspiration from the memory of the smiling and inquisitive faces of Roman, Marina, Yelena, Augusto, Faridah, and Kumar.

Rudi turned once again to the history and English language proficiency standards spread out before him. Each one of his English learners was a unique individual with specific strengths and weaknesses in both language and content. These diverse needs made lesson planning challenging, but his ELL kids were counting on him to find a way to communicate with them. Rudi was determined to do just that.

STOP AND DO

To assist you with the pronunciation of many foreign names, visit How to Say that Name.com. Many names are available with audio files by native speakers.

STOP AND THINK

Think about the English learners you know. What information do you already have that would help to inform the strategies you can use to meet their instructional needs? What information do you still need to obtain?

Language Proficiency

Language proficiency can be defined as *the ability to use language accurately and appropriately in its oral and written forms in a variety of settings* (Cloud, Genesee, & Hamayan, 2000). Kern (2000) developed a broad conceptual framework for understanding language proficiency that includes three dimensions of academic literacy: linguistic, cognitive, and sociocultural. To be proficient in a language requires knowledge and skills using the linguistic components. It also requires background knowledge, critical thinking and metacognitive skills, as well as understanding and applying cultural nuances, beliefs, and practices in context. Finally, being proficient in a language requires skill in using appropriately the four language domains—listening, speaking, reading, and writing—for a variety of purposes, in a variety of situations, with a variety of audiences.

Language Domains

There are four language domains: listening, speaking, reading, and writing. Although these four domains are interrelated, they can develop at different rates and independently of one another. These four domains can be classified as receptive or productive skills and as oral or written. The matrix in Figure 2.1 depicts the four language domains.

	Receptive	**Productive**
Oral	Listening	Speaking
Written	Reading	Writing

Figure 2.1 Language domains.
Receptive language refers to the information someone *receives* through listening or reading activities.
Listening. English learners process, understand, and respond to spoken language from a variety of speakers for a range of purposes in a variety of situations. Listening, however, is not a passive skill; it requires the active pursuit of meaning.
Reading. English learners process, interpret, and evaluate written words, symbols, and other visual cues used in texts to convey meaning. Learning to read in a second language may be hindered or enhanced by students' levels of literacy in their native languages. Students who have strong reading foundations in their first languages bring with them literacy skills that can typically be transferred to the process of learning to read in English.
Productive language refers to the information *produced* to convey meaning. The very nature of productive language implies an audience, although not always an immediate audience, as in the case of

writing a book or an e-mail.

Speaking. English learners engage in oral communication in a variety of situations for a variety of purposes and audiences in a wide array of social, cultural, and academic contexts. Contextual roles for getting and keeping the floor, turn taking, and the way in which children converse with adults are only a few examples.

Writing. English learners engage in written communication in a variety of forms for a variety of purposes and audiences. These forms include expressing meaning through drawing, symbols, and/or text. ELLs may come with writing styles and usages that are influenced by their home cultures.

Understanding the different demands of each language domain aids educators in addressing the language learning needs of their ELLs. Note that proficiency in a language may vary across the four basic language skills. For example, think about the times we have heard an adult language learner say, "I can read German, but I can't speak it at all." Likewise, some ELLs may have stronger listening and speaking skills, while others might be stronger writers but not as strong when it comes to speaking. When assessing the proficiency levels of ELLs, it is important to take into account an individual student's performances in each domain.

STOP AND THINK

Rudi Heinz has learned that his sixth-grade ELL student, Faridah, scored at a Level 2 on the state's English language proficiency (ELP) exam. However, this information provides an incomplete and misleading picture of Faridah's needs and abilities. To address her language needs effectively, to understand the impact of her language proficiencies in the content areas, and to build on her language strengths, Rudi must uncover Faridah's individual scores in every language domain and in combinations of domains.

Faridah's cumulative file holds a copy of the state's language proficiency test, which she completed the previous spring. Here are the scores (on a scale from 1 to 4, with 4 being advanced proficiency):

Listening:	*3*	*Reading:*	*2*
Speaking:	*1*	*Writing:*	*2*

Rudi felt some degree of success at locating the language proficiency information, but he still wondered what to do next. How are these scores helpful? What do they mean in the real-life context of the busy classroom?

English Language Proficiency

As students learn a second, third, or fourth language, they move along a continuum of predictable stages. Careful observation of and interaction with individual students aids educators in identifying each student's level of language proficiency. This information is pivotal when planning appropriate instruction for ELLs.

State English language proficiency (ELP) standards (e.g., Washington state ELPs at http://www.k12.wa.us/MigrantBilingual/ELD.aspx) or multistate ELPs (e.g., TESOL's 2006 PreK–12 English language proficiency Standards, or WIDA's 2012 English language development standards at https://wida.wisc.edu/sites/default/files/resource/2012-ELD-Standards.pdf) provide helpful guidance for teaching content across the four language domains.

TESOL's five preK–12 English language proficiency standards (see Figure 2.2) can guide teachers in helping ELs become proficient in English while, at the same time, achieving in the content areas.

Standard 1	English language learners **communicate** for **social, intercultural,** and **instructional** purposes within the school setting.
Standard 2	English language learners **communicate** information, ideas, and concepts necessary for academic success in the area of **language arts.**
Standard 3	English language learners **communicate** information, ideas, and concepts necessary for academic success in the area of **mathematics.**
Standard 4	English language learners **communicate** information, ideas, and concepts necessary for academic success in the area of **science.**
Standard 5	English language learners **communicate** information, ideas, and concepts necessary for academic success in the area of **social studies.**

Figure 2.2 PreK-12 Englis Language Proficiency Standards.
Source:PreK-12 English Language Proficiency Standards by TESOL. Copyright 2006 by Teachers of English to Speakers of Other Languages, Inc. (TESOL). Reprinted with permission.

English Language Proficiency Levels

Students progress through the stages of language proficiency at different rates: some acquire nativelike competency in 7 years, some may take 10 years, while others may never reach that level. Most students learning a second language follow a similar route; that is, certain linguistic forms and rules are acquired early, whereas others tend to be acquired late, as illustrated in Figure 2.3. In other words, while most students follow the same path in learning English, their pace and rate are different depending on a variety of factors, such as native language, familiarity with the Latin alphabet, competence in the native language, age, previous schooling experiences, aptitude, motivation, personality, and other social and psychological factors.

Typical Stages in the Acquisition of Negation	
(1) “no want pizza” (2) “me no want pizza” (3) “I don’t want pizza”	
Linguistic Features Acquired in the Early Stages	
-/s/ plural	“Ken has many books.”
-ing verb ending	“Sandi is playing ball.”
active sentences	“Ronaldo built a big tower with blocks.”
Linguistic Features Acquired in the Later Stages	
-/s/ possessive	“That is Tamara’s coat.”
-/s/ third person singular	“Sasha plays with Leia.”
passive voice	“A big tower with blocks was built by Lorca.”

Figure 2.3 Acquisition of English features
While many states have developed their own sets of standards and may use four, five, or six proficiency levels or apply different labels for each stage (e.g., beginning, early intermediate, intermediate, early advanced, and advanced), the standards outline the progression of English language development in the

four domains of listening, speaking, reading, and writing through each of the different levels from novice to proficient.

STOP AND DO

Check examples of state English language proficiency standards for K–12 education on the website for the state of California at http://www.cde.ca.gov/be/st/ss/documents/englangdevstnd.pdf;
Illinois at https://www.isbe.net/Pages/English-Language-Learning-Standards.aspx;
and *Texas* at http://ipsi.utexas.edu/EST/files/standards/ELPS/ELPS.pdf
The English language proficiency (ELP) standards developed by TESOL provide a model of the process of language acquisition that can be adapted by districts and states within the context of their own language leveling system (see Figure 2.4 for these standards).

Stages of English Language Proficiency (ELP)	
Level 1: Starting	
Speaking/Listening	At this level, students . . . • initially have limited or no understanding of English. • rarely use English for communication. • respond nonverbally to simple commands, statements, and questions. • begin to imitate the verbalizations of others by using single words or simple phrases. • often pass through a silent period, during which time the student may not speak English. • begin to use English spontaneously.
Reading/Writing	At the earliest stage, learners . . . • construct meaning from text primarily through nonprint features (e.g., illustrations, graphs, maps, tables). • gradually construct meaning from the words themselves. • are able to generate simple texts that reflect their knowledge level of syntax. Student-produced texts may include unconventional features such as . . . • invented spelling • grammatical inaccuracies • pictorial representations • words in the first language (L1) • surface features and rhetorical patterns of the native language (such as replication of ways of structuring text from native culture and language)
Level 2: Emerging	
Speaking/Listening	At this level, students . . . • understand phrases and short sentences using familiar vocabulary. • communicate limited information in everyday and routine situations by using memorized phrases, groups of words, and formulas. • use selected simple structures correctly but still systematically make basic errors. • begin to use general academic vocabulary and familiar everyday expressions.

Reading/Writing	Reading and writing proficiency may vary depending on students' . . . • literacy development in their native language. • familiarity with the Latin alphabet. At this level, students • read words and phrases. • locate specific, predictable information in simple everyday or environmental print. • approximate the spelling of words. • write for themselves to express their own personality and personal thoughts. Errors in writing are present and often hinder communication.
Level 3: Developing	
Speaking/Listening	At this level, students . . . • understand more complex speech. • still may require some repetition or a slower rate of speech. • acquire a vocabulary of stock words and phrases covering many daily situations. • use English spontaneously. • may have difficulty expressing all their thoughts due to a restricted vocabulary and a limited command of language structure. • speak in simple sentences that are comprehensible and appropriate but are frequently marked by grammatical errors. • may understand and use some specialized academic vocabulary. • still have some trouble comprehending and producing complex structures and academic language.
Reading/Writing	Proficiency in reading may vary considerably depending on learners' familiarity and prior experience with . . . • themes, concepts, genre, characters, and so on. Students are most successful constructing meaning from texts for which they have background knowledge on which to build. In writing, they are able to generate . . . • increasingly complex texts. • a wider variety of texts. • more coherent texts than beginners. • texts still containing a considerable number of unconventional features.
Level 4: Expanding	
Speaking/Listening	At this level, students . . . • possess language skills that are generally adequate for most day-to-day communication needs. • occasionally make structural and lexical errors. • may have difficulty understanding and using some idioms, figures of speech, and words with multiple meanings. • communicate in English in new or unfamiliar settings. • have occasional difficulty with complex structures and abstract academic concepts.

Reading/Writing	Students at this level . . . • may read with considerable fluency. • are able to locate and identify specific facts within the text. • may not understand texts in which the concepts are presented in isolation and without contextualized support, the sentence structure is complex, or the vocabulary is abstract or has multiple meanings. • encounter more difficulty with grade-level literacy than with oral language. • may read independently but may have occasional comprehension problems, especially when processing grade-level information. • may produce texts independently for personal and academic purposes. • produce texts that approximate the writing the structures, vocabulary, and overall organization of native speakers of English. • make errors in one or more domains that generally do not interfere with communication.
Level 5: Bridging	
Reading/Writing	Students . . . • are able to work with grade-level material with some modification. • have a good command of technical and academic vocabulary as well of idiomatic expressions and colloquialisms. • can produce clear, smoothly flowing, well-structured texts of differing lengths and degrees of linguistic complexity. • make minimal errors that are difficult to spot or are generally corrected when they occur.

Figure 2.4 Levels of language proficiency
Source: PreK-12 English Language Proficiency Standards by TESOL. Copyright 2006 by Teachers of English to Speakers of Other Languages, Inc. (TESOL). Reprinted with permission.
The language proficiency levels are not necessarily connected to cognitive functions. Often students may be able to process advanced cognitive tasks and yet not be able to express those understandings in the second language. For example, Level 1 or Level 2 English language learners can still analyze and classify information if it is presented in small chunks and supported visually.

STOP AND THINK

Take a moment to recall the information Rudi Heinz collected about Faridah's English language proficiency test scores:

Listening:	*3*	*Reading:*	*2*
Speaking:	*1*	*Writing:*	*2*

Using the information presented in the preceding section, answer the following questions.

1. What are Faridah's strengths?
2. How does this information help Rudi plan instruction for Faridah?
3. What can Rudi reasonably expect Faridah to understand and do in his ancient history class?
4. Is that all there is to learning a language?

Communicative Competence

Pike (1982), notes that "[l]anguage is not merely a set of unrelated sounds, clauses, rules, and meanings; it is a total coherent system of these integrating with each other, and with behavior, context, universe of discourse, and observer perspective" (p. 44). As early as the 1970s, Dell Hymes (1972) put forward a notion of linguistic competence to mean more than mastery of formal linguistic systems. Communication is not only about oral and written language. When we speak, our speech is often accompanied by nonverbal communications such as facial expressions, gestures, body movement, and sighs. The way we stand, the distance between our listeners and us, the looks on our faces, and our tone of voice all influence the manner and content of our communication.

While the ability to correctly form words, sentences, paragraphs, and larger bodies of text is an important expectation by schools and educators, the area of **communicative competence** can sometimes be overlooked. Briefly, the idea of communicative competence is the communicator's comprehensive knowledge and appropriate application of a language in a specific context. This knowledge helps the communicator know what to communicate and, more important, how, when, and where to communicate something. For example, the following exchange between a principal and her middle school Honduran student includes appropriate grammatical features but much more information than needed:

Principal:	Antonio, you've been absent for two days. Why?
Antonio:	The first day I had to stay with my little sister because my cousin got sick and my mom took him to the doctor. You know, I can't drive yet. I would have taken my cousin faster. They took the bus. My cousin will stay in the hospital for a few days. I don't know what's the problem; it's something with his heart. He is a lot older than me.

While Antonio's grammatical constructions are acceptable, in U.S. settings this may not be the response expected by a principal or teacher because it contains much more information than needed.

STOP AND THINK

1. *Can you recall any conversations with English language learners and/or their families that are similar to the example involving Antonio above?*
2. *What did you find inappropriate in the example(s) that you recalled?*
3. *Why was that instance from your student (or from his or her family member) inappropriate? By whose standards?*

Elements of Communicative Competence

Communicative competence does not apply only to oral language. Communicative competence means competence in all four language domains—both the productive and the receptive. When talking of communicative competence, we need to consider four important elements: grammatical or linguistic, sociolinguistic, discourse, and strategic. Each will be defined below. Examples are provided in Figure 2.6.

1. **Grammatical or linguistic competencies** involve accuracy of language used (e.g., spelling, vocabulary, sentence formation, pronunciation).
2. **Sociolinguistic competencies** entail the use of language in an appropriate manner or style in a given context. These competencies take into account a variety of factors such as rules and social

conventions, the status of participants, and cultural norms.

3. **Discourse competencies** involve the ability to connect correctly formed phrases and sentences into a coherent and cohesive message in a particular style. These competencies involve the ability to be a sender and receiver of messages and to appropriately alternate those roles in conversations or written language.
4. **Strategic competencies** involve the development of strategies such as how to get into or out of conversation, break silences, hold the floor in conversations, and deal with strategies to continue communicating when faced with breakdown in communication.

Elements of Communicative Competence	Examples
Grammatical/linguistic	• How do you spell ____? • I can't remember the word! • Is the correct word order "I the dog see" or "I see the dog"?
Sociolinguistic	• Which words and phrases fit with this setting and topic? • How can I express a specific attitude (e.g., courtesy, authority, friendliness, respect) when I need to? • How do I know what attitude another person is expressing?
Discourse	• How are words, phrases, sentences, and paragraphs put together to create cohesive and coherent communication (conversations, speeches, e-mail messages, reports, newspaper articles)?
Strategic	• How do I know when I've misunderstood someone or when someone has misunderstood me? • Can I think of another way to express my ideas if I can't remember the right word? Maybe I could pantomime or draw a picture?

Figure 2.6 Elements and examples of communicative competence.

STOP AND THINK

How can educators model and teach each facet of communicative competence while simultaneously teaching content? Think of specific examples.

The Role of Native Languages and Cultures

Native language is the primary or first language spoken by an individual. It is also called the mother tongue. The abbreviation **L1** refers to someone's native language. It is generally used in contrast to **L2**, the language a person is learning. Native culture is the term often used to refer to the culture acquired first in life by a person or the culture that this individual identifies with as a group member.
Norton (1997) claims that, "[t]he central questions teachers need to ask are not, 'What is the learner's mother tongue?' and 'Is the learner a native speaker of Punjabi?' Rather the teacher should ask, 'What is the learner's linguistic repertoire? Is the learner's relationship to these languages based on expertise, inheritance, affiliation, or a combination?'" (p. 418). There is an intimate relationship among language, culture, identity, and cognition. Educating ELLs includes not only focusing on language learning but also on building on students' native languages, cultures, and experiences. Most English language learners are very familiar with at least one other language and have an intuitive understanding of how language and texts work. This knowledge of their first language (L1) will greatly enhance their

opportunities to learn English. Research in this area indicates that full proficiency in the native language facilitates the development of the second language (L2) (August & Shanahan, 2017). Native language proficiency can also impact how students learn complex material, such as what is typically encountered in content-area classrooms (Ernst-Slavit & Slavit, 2007).

The key is to consider students' first languages and cultures as resources to be tapped into and built upon. Thinking of our English learners as "having to start from scratch" is the equivalent of denying the many experiences that children have accumulated before coming to the United States and the vast amount of family and cultural knowledge and traditions that have been passed on to students from the moment they were born. The consequences of denying students' first language can be far reaching because language, culture, and identity are inextricably linked.

STOP AND DO

For a useful article on the value of the native language and culture, see "The Home Language: An English Language Learner's Most Valuable Resource" in ¡Colorín Colorado!, by Genesee (2012), at http://www.colorincolorado.org/article/home-language-english-language-learners-most-valuable-resource. For ideas about how to find out information about students' cultures, see the section called "Background" in Chapter 3 of this text.

Translanguaging

Translanguaging affords practitioners and academics alike a different way of conceptualizing bilingualism and multilingualism. This perspective views bilinguals and multilinguals not as possessing two or more autonomous language systems, but as users of a unitary linguistic repertoire where they sort and select whatever resources are needed to make meaning and to communicate with others.

The term *translanguaging* was initially used by Williams (1996) to refer to a pedagogical practice where Welsh students would receive information in one language (e.g., reading) and then use it another language (e.g., writing). Some years later, the use of the term was expanded in the United States by Ofelia Garcia (see, for example, García & Wei, 2014; García & Kleyn, 2016) to refer to the language practices of people who speak more than one language. Translanguaging is not code-switching; it is not just going from one language to another. The notion of code-switching assumes the alternation of separate languages in the context of a single conversation (e.g., "*Maria forgot su bolsa*," where the child uses Spanish to mean "her bag"). According to Garcia (2011), rather than looking at two separate languages, translanguaging avows that "bilinguals have one linguistic repertoire from which they select diverse features strategically to communicate effectively" (Garcia, 2011). The following example by Ernst-Slavit (2018) showcases how demarcations of languages are difficult to make when several languages are used fluidly in one household:

If you attended a gathering at the home of a bilingual family, you might only use English while you were there. However, different family members might have used different languages for multiple purposes. For example, if you visit an Indian family (from southeast Asia), you might find grandma busy in the kitchen pulling pans out of the oven and reading recipes in Hindi while the kids are playing video games in English. Mom, Dad, and guests may be speaking mostly in English. However, when Dad speaks to the children he does so in Urdu. And then there is grandpa, watching a Bollywood movie in Urdu that includes regional variants such as Gujarati and Punjabi (p. 10).

The above example of translanguaging in action depicts a family using their many linguistic resources in their everyday lives. While Urdu was the home language mentioned in the census and in the children's school records, in this household there is not one home language but a full range of language practices used fluidly according to the speaker, purpose, and context (Ernst-Slavit, 2018).

The use of translanguaging in educational contexts has brought a wealth of both interest and disagreement. Many educators working on issues of language education—the development of additional languages for all, as well as minoritized languages—have embraced translanguaging theory and pedagogy. Other educators are wary of the work on translanguaging. Some claim that translanguaging pedagogy pays too much attention to the students' bilingualism; others worry that it could threaten the language separation traditionally posited as necessary for language maintenance and development (Vogel & Garcia, 2017).
For a study on translanguaging in a third grade classroom, read "Translanguaging and Protected Spaces in a Dual Language Classroom: Tensions Across Restrictionist Policies and Unrestricted Practice" by Kristen Pratt & Gisela Ernst-Slavit (in press).

STOP AND THINK

While waiting in line for a hot lunch, Rafa, a new teacher in the school, overhears Mrs. Holton telling several native Russian-speaking immigrant students to speak only English. What can he say or do to advocate for the students while at the same time maintaining a good working relationship with Mrs. Holton?

Strategies for using the native language in the classroom

Given the wide variety of languages spoken by immigrant students in the United States today, teachers will not know all of the native languages of their students. Yet teachers can still promote the use of native languages in their classrooms. Below are selected approaches for supporting native language development in K–12 classrooms.

1. **Organize primary language clusters.** Create opportunities for students to work in groups using their primary language. This can be helpful as they discuss new topics, clarify ideas, or review complex concepts.
2. **Label classroom objects in different languages.** Labeling classroom items allows English learners to understand and begin to learn the names of objects around the classroom. Labels also assist educators and other students to learn words in different languages.
3. **Assign a bilingual buddy to your newcomer student.** Having a buddy who speaks the child's first language can be very helpful as the new student learns how to function in the new school and culture. This buddy provides comfort while at the same time guides the newcomer throughout different activities (e.g., calendar, circle time, journal writing) and settings (e.g., bus stop, science lab, cafeteria).
4. **Support the use of the native language by using classroom aides or volunteers.** By using the preview-review approach (that is, the translation of key concepts before the lesson starts, followed by review of the new content), aides or volunteers can enhance the learning opportunities of ELLs.
5. **Encourage primary language development at home.** In today's diverse world, bilingualism is highly valued. If students can continue to develop their first language as they learn English, their opportunities as bilingual adults will be enhanced. In addition, when students continue to develop their native language, they can continue to communicate meaningfully in the first language with their parents and relatives.
6. **Use technology.** English learners can benefit from using technology for multiple purposes. The availability of graphical, video and audio resources can provide amazing supports for students. For example, discussion boards can create platform for students to be actively engaged using

both academic and everyday English in and outside the classroom context. Likewise, searching for cognates on particular content topics might help your students have a prior of understand of the content. While some students might not be ready to produce a well-crafted five paragraph argumentative essay, they might be able to produce an outstanding PowerPoint presentation. For more ideas about technology use in language learning, see the free OER resource CALL Principles and Practice by Egbert & Shahrokni (available from https://opentext.wsu.edu/call/).

7. **Use bilingual books.** An abundance of bilingual books in a variety of languages has been published in the United States since the 1980s. These books provide an effective tool for raising students' awareness about diversity but also for fostering literacy and biliteracy development. Figure 2.6 provides a list of strategies for using bilingual books in the classroom; the list was developed by Ernst-Slavit and Mulhern (2003).

Introducing a new topic	Literature that relates thematically to a new unit or lesson can acquaint a beginning English language learner with the topic at hand.
Supporting transfer of reading in L1 to L2	Children who can read in their L1 and have learned some oral English benefit from taking turns with an English speaker in reading aloud a bilingual book.
Supporting independent reading	A book in the native language can soothe feelings of frustration and exhaustion common among L2 learners.
Using L1 version as preview	Students can read or have someone read to them the L1 version of a book in order to understand its content.
Using L1 version as review	After a book has been read and discussed in the L2, students can use the L1 version to write about the topic, review issues discussed, or further their understanding.
Reading two versions for self-assessment	Young ESL students enjoy finding out how much English they are learning by counting the words they understand before and after the book is read in the L1 and discussed in the L2.
Comparing and contrasting cognates	Comparing and contrasting words in L1 with English words can contribute to increases in word recognition, vocabulary development, phonic analysis, and structural analysis.
Improving home–school connections	Family members can be actively involved in the education of L2 students, even if their English skills are limited, when books in L1 are available.
Supporting family literacy programs	A great way to start a family literacy program for parents of ESL students is by assisting them in locating books in the L1.
Raising all children's awareness of multiculturalism	Bilingual books and materials in languages other than English can raise all children's awareness through exposure to different languages and scripts.
Helping teachers learn another language	Bilingual books can help teachers and others learn some words in students' native languages.
Encouraging reading for pleasure	One way for students to obtain sufficient amounts of written input is through pleasure reading, whether in L1 or L2.

Figure 2.6 Strategies for using bilingual books in the classroom.
Adapted from "Bilingual books: Promoting literacy and biliteracy in the second-language and mainstream classroom" by G. Ernst-Slavit and M. Mulhern. *Reading Online,* 7(2). Copyright 2003 by the International Reading Association. Reproduced with permission.

Conclusion

Learning a first language is a complex and lengthy process. While learners follow a similar route in learning a second language, the rate in which they acquire the target language varies depending on a variety of linguistic, sociocultural, and cognitive factors. As students navigate through the process of becoming competent users of English, educators' awareness of their location along the language learning continuum can help them better address the students' needs and build on their strengths.

Extensions

For Reflection

1. *Speaking a second or third language*. Do you speak a second or third language? If you do not, do you have a friend who does? Do you or your friend have equal levels of competence across language domains? Think about why some language domains developed more than others.
2. *Types of writing systems*. Look at some of the different alphabets and writing systems for different languages at Omniglot (http://www.omniglot.com/) or at any other website or text. Based on those writing systems, what language do you think would be easier for you to learn? Which one would be more difficult? Why?

For Action

1. *Linguistic diversity*. What native languages other than English are spoken by students in your classroom? In your school, district, and state? Jot down a list of what you believe are the top languages in your area and compare it with information you can find about your school, district and state. (For information about the different languages spoken in your state and across the United States, visit the website for the Office of English Language Acquisition at http://www.ncela.gwu.edu/stats/3_bystate.htm).
2. *English language proficiency standards*. Find the English language proficiency standards for your state. Then compare those with the 2006 TESOL *PreK–12 English Language Proficiency Standards* (https://sites.tesol.org/Bookstore/ItemDetail?iProductCode=318&Category=STANDARDS) or any set of language proficiency/development standards. What are some similarities? What are some differences?

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II

Part Two: Components of Effective Lesson Design

Where do I come from? I come from an unknown place, a place where nobody wishes to be. I come from a place where everybody has nightmares, where mercy does not exist. Where suffering is well-known. I come from a place where obstacles are always present, and hardness is never, ever absent. I come from hell disguised as happiness, a place where many are unhappy. **I come from a place of defeat.** A place where everyone has fallen and just a few have triumphantly returned. A place where I don't want to return, because it's terrible. I swear.	**De dónde vengo?** Vengo de un lugar desconocido. Un lugar donde nadie desearia haber nacido. Un lugar donde todos tienen pesadillas, donde no existe piedad, donde sólo existen penas. Un lugar donde las trabas son demasiadas. Un lugar donde todos son infelices; **vengo de la derrota.** Un lugar donde todos han caído y pocos han salido. Un lugar a donde no quiero regresar por que es terrible en verdad.

Student A. Tomás Flores. Used with permission.

Stop and Think

How can reading and reflecting on Tomas's poem help his teacher plan her instruction to be more effective? Think about this question as you read the chapters in Part Two.

3

Chapter 3: Assessing Student Strengths and Needs

Key Issues

1. Students bring with them different backgrounds, which express themselves as skills, abilities, knowledge, family and community characteristics, and experiences.
2. Student strengths and needs, including linguistic, content, educational, and cultural, have their roots in these backgrounds.
3. Addressing students' both strengths and needs can affect learning of language and content.
4. Teachers can uncover their students' strengths and needs so that they can build on them to help students achieve.

As you read the scenarios below, think about how your classroom context might be like the teachers' classroom depicted in each. Reflect on how you might address the situations that these teachers face.

Scenario 1
Nathan Hamma teaches at an elementary school in a district with a 60% ELL population. His sixth-grade class is a mix of native speakers and non-native speakers at different levels. A conscientious teacher, Mr. Hamma tries to meet the needs of all his students by breaking them into groups by language ability and trying to work with the less fluent groups as much as possible. He is a bit frustrated that not all of the students work well in their groups and that some seem uninterested in the lessons. He has noticed that some of his ELLs have a better mastery of different aspects of the class content than others do, but he feels that their language needs are the most important issue to address and that homogeneous language grouping will help with this issue. He is concerned that his ELLs' lack of content and language knowledge will keep them from passing the high-stakes test that all students must pass to go on to junior high.

Scenario 2
Andrew Chen teaches sixth grade at another school in the same district as Nathan Hamma does. His students are also a mix of native and non-native English-speaking students. At the beginning of the year, he spent two weeks gathering information about his students from their files (if they existed), parents, former teachers, and the students themselves. He collected reading and writing samples in both the first language (L1) and the second (L2); background information on students' beliefs, interests, and experiences; and information about what students had studied previously and succeeded in mastering. He discovered that many of his non-native speakers have above-grade-level knowledge in math and science, and that some of the ELLs who seem to have mastered English need extra help working on academic and content-based language. Likewise, he found a range of language and content knowledge among his native English-speaking students. He prepares his instruction while keeping in mind what he has learned about his students. He changes groupings according to content and language knowledge and uses both heterogeneous and more homogeneous groups depending on the lesson topic, language, and tasks. Mr. Chen continues to use strategies such as Know/Want to Know/ Learned/Still Want to Know (KWLS) charts and personal journals for each lesson because he knows that the more he knows about his students, the better his lessons will fit their needs.

STOP AND THINK

Before reading the chapter, what advice would you give the teachers in the scenarios above?

Background

Many authors cite the need for teachers to understand not only the educational backgrounds of students but also the lives of students outside school, including the cultural and linguistic backgrounds of all students (see, for example, Echevarria, Vogt, & Short, 2016; Peregoy & Boyle, 2016), and to plan instruction around this information. As Saville-Troike (1978) notes in her classic but still very relevant monograph, home culturesCulture is often defined as a student's country of origin. While researching a student's home country is often a good place to start to understand a student, countries can have more than one culture and often have several. A more accurate definition of culture is the experiences, beliefs, and values that the learner's community shares, regardless of its size or location. Understanding the student's community is essential to understanding how a student's culture might affect that student's learning. can play a distinct role in student school success:

Students may differ in their willingness to ask questions or volunteer information because of cultural differences in the appropriateness of these behaviors. Teachers should both use and allow a variety of procedures and be sensitive to which procedures are appropriate for which students, and to which differences in behaviors are due to cultural differences between groups and which to individual personality factors. Many students have been incorrectly stereotyped as "shy" because the teacher was requiring inappropriate behavior, "from the perspective of the student's native culture" (p. 44). Roseberry, McIntyre, and Gonzalez (2001) reinforce this notion, observing that "children may find that they do not know how to show the teacher what they know in ways she can recognize. They may be asked to engage in activities they do not fully understand. And they may find that the teacher talks in ways that are unfamiliar and confusing" (p. 3). For example, students from an oral culture may learn content and language better in a storytelling format than from a textbook. Students who are taught at home that it is inappropriate to compete against others might have a hard time participating in competitive tasks in class.

Effective, inclusive teaching includes understanding students' cultures; it is also based on what learners bring with them to the classroom in terms of academic knowledge and knowledge about the world. These *funds of knowledge* (Moll, 2015) are cultural and cognitive resources that can be used in planning instruction in order to provide culturally responsive and meaningful lessons that work from a base of student strengths.

These issues mandate the acknowledgment of and connections to students' home cultures and knowledge bases in instruction. That is not to say that every assignment should be tailor-made for individual students, but as described in other chapters in this text, a variety of effective tasks can be used in order to give students access to content and language. Teachers can provide this access only if they understand their students' strengths, needs, interests, and abilities.

STOP AND THINK

What kinds of knowledge might students bring from home?

Although it is clear that teachers need to understand their students' backgrounds, it is harder to find descriptions of how this information is to be collected and used. While some student information may be

gathered immediately from students—such as their names, whether they have attended school previously, and what their typical pastimes are—other data must be learned more gradually. Some questions can be asked directly, while some facts can be observed only over time, including specific academic knowledge, preferred interaction patterns, and use of learning strategies. The important issue is that the teacher makes it an explicit aim to collect and integrate as much knowledge about each student as possible.

A teacher can collect information about students in a variety of ways. For example, many teachers use **formal assessments**Formal assessments are standardized across a set of students and typically result in evaluation of some type (e.g., a grade or other mark). They are also known as *summative assessments* and often include end-of-chapter tests, quizzes, and presentations. at the end of a lesson or unit to gather information about student outcomes in content and language and to provide a grade. However, the information gained through these assessments does not typically indicate where the students need help and why they succeed in certain areas. If teachers perform ongoing **informal assessments**Informal assessments are used to gather information to inform instructional planning. Also called *formative assessments*, they include teacher observation, checklists, and discussion and interview. These and other strategies are discussed in Chapter 7 in this text. (checking student process and performance before, during, and after the lesson and between lessons), these assessments can reveal information about students and where and why they are succeeding or need help accessing content and language.

One issue in collecting and sorting such data is that of time—with packed curricula, teachers might feel like there is not enough of it. With student information at hand, however, instruction can be more effective, and time will be ultimately be saved by having more students succeed. Other concerns in understanding student needs are possible language barriers and privacy issues. However, many districts have interpreters or interpretation services, and there are other resources, some mentioned in this text, to helpSee texts such as *School Letters in English and Spanish* from Ammie Books (http://www.ammieenterprises.com/) to assist with home–school communication..

STOP AND THINK

What are some ways that you can gather information from and about students?

Understanding Strengths and Needs

The first two chapters in this text focused on social and academic language and the relationships between language and content. This chapter focuses on discovering students' language and content strengths and needs by understanding their backgrounds. The sections briefly highlight ways to gather (1) general, (2) linguistic, (3) academic, (4) content, and (5) cultural information about students. The other chapters in Part Two include ways to integrate this information into instruction.

Collecting General Information

As we have already noted, there are numerous techniques for collecting student data. One of the quickest ways to obtain general information about students, particularly about their general backgrounds and perceptions, is to give them a survey at the beginning of the school year. This can be done in the student's L1 if necessary, or pictures and/or photos can be used. Questions, as appropriate, can include the following:

- How many people live in your home? Who are they? Do any of them read and write in English? If so, who?
- Have any of your close friends or relatives gone to school in the United States?
- Did you go to school in your home country? For how long?
- Have you studied English before? For how long?
- Do you come from a big city or from the country?
- What was a typical day at school like for you in your home country or in your previous residence? Did you have homework?
- Who helps you with your homework? Where do you usually do homework?
- What do you like about school?
- What do you do when you are not in school?

The students' responses will assist in understanding some of the home context that may affect students' school performance, and vice versa. Follow-up surveys can be given throughout the year. Note that if the survey asks questions that require yes or no responses, not as much information will be gained as from more open-ended questions. Analysis of the data can be as simple as forming an overall impression of the class or using it to draw a more complete picture of the backgrounds and needs of individual students.

Another way to gather general information about students is through casual conversations with each student. During those times when the teacher is not at the front of the class, she can take notes on short conversations with each student about relevant issues. A paraeducator with the same first language as the student can also help with this technique. Brief student-to-student interviews, in which students write or explain what their partners are interested in or how the topic under study relates to their lives, can also be effective. This is especially helpful if the class has fluent speakers of both the L1 and L2 who are willing to participate.

A wall-write is another method for gathering general information. In this technique, the teacher hangs sheets of paper on the walls of the classroom. Each sheet has one question or statement ranging from the simple (e.g., "I like to travel" or "Do you have a pet?") to the more complex (e.g., "I think that voting is an important responsibility" or "Where do the majority of your relatives live?"). Students answer the question or sign their names under the statements with which they agree. (No sensitive information should be requested or discussed in such a public forum, of course.) However, this technique can depend on the students' ability to read the questions and answer in writing, something that many ELLs may not yet be prepared to do.

One more technique to collect group data quickly is to use moving questions. As in a wall-write, teachers can use questions or statements. Students who agree or disagree with the statement that the teacher says out loud and/or writes on the board move to different sides of the room, or they move to the corner of the room that provides their response to the question. For example, if the teacher says, "I was born in a big city," students who were born in a big city move to one side of the classroom and students who weren't move to another. This provides the teacher with an easily observable classroom overview and also helps the students to understand some of their general similarities and differences. The teacher can support this activity with photos so that all students can participate.

A slower but possibly richer technique to collect general information about students is to use dialogue journals. In a notebook, students communicate back and forth with the teacher or another student. Students can draw pictures, use both their L1 and L2, and include photos or questions. Teachers write back, modeling the L2 and asking relevant questions. Dialogue journals can also be created on the computer through e-mail exchanges, private blogs, and other technologies. An advantage of using dialogue journals is that students can express themselves and reply in many ways, making it more likely that some information will be gathered in spite of language barriers. For more information about

dialogue journalsFor additional information on dialogue journals, see these seminal articles: J. Peyton (1993), Dialogue journals: Interactive writing to develop language and literacy, available from the Center for Applied Linguistics (http://www.cal.org/resources/Digest/peyton01.html), or J. Staton (1987), Dialog journals, available from the ERIC database (ED284276)., see Gonzalez (2016).
Whatever strategies teachers decide to use, they need to be sure to provide an example of each strategy and to share information about themselves, too. This gives students a better chance of completing the activity successfully and also allows them to know their teachers. A useful resource for thinking about home/school planning is the North Central Regional Educational Laboratory's (NCREL) (2004) *Putting the Pieces Together: Comprehensive School-Linked Strategies for Children and Families*, available from http://www.ncrel.org/sdrs/areas/issues/envrnmnt/css/ppt/putting.htm.
The strategies described above are summarized in Figure 3.1. There are many more techniques that follow these patterns. In addition to general information, they can also be used to collect more specific student information, as noted later in this chapter.

Technique	**Explanation**
Survey	General questions are asked in a questionnaire format.
Conversations	Teachers or other communicants have casual conversations as time allows.
Wall-write	Students answer questions or reply to statements by signing their name or responding on a piece of paper taped to the wall.
Moving questions	Students answer a question by moving to one side or corner of the room.
Dialogue journals	Students communicate with the teacher or another student on a regular basis, using a variety of modes for writing journal entries and responses in the form of journal entries.

Figure 3.1 Techniques for collecting general student information

Gathering Information on Learners' Language Backgrounds

Most school districts have one or more standardized language tests such as the Language Assessment Scales (LAS; McGraw Hill) to measure and place students into English language learning (ELL) programs. Typically, however, such tests are used only to ascertain which students should receive special services at what level. Standardized tests typically do not show, for example, whether students understand commonly used language such as indirect instructions and commands (e.g., "I like the way Mary is sitting" that really means "Billy, get off the table!" or "Would you like to do your arithmetic now?" that really means "Do your arithmetic now!" [Saville-Troike, 1978]). While students are in the ELL program, classroom teachers can work with the ELL teacher to discover students' language abilities and needs. Once students exit the ELL program (or if they did not receive services but still need language help), classroom teachers need to find out more about the language students know and can use. During this process, teachers need to keep in mind that social language ability (basic interpersonal communication skills [BICS]) and academic language ability (cognitive academic language proficiency [CALP]) develop at different rates, as we noted in Chapter 1. In other words, simply observing students talking with their friends on the playground using social language may not be a good indicator of their true ability to use and understand academic language.
Teachers can start the discovery process by asking basic questions about students' language backgrounds. These questions can be developed from frameworks like the CAN DO Descriptors mentioned in Chapter 2 and can include the following:

- What is your first language? Do you speak another language? If so, which?

- What can you do in your first language that you can't yet do in English?
- What language do you usually speak with your friends?
- What language do you usually speak with your family?
- What language do you dream in?

Language process and progress can be evaluated in any number of ways, from casual observation to observation checklists, to formal testing. Because language can be understood and produced in many ways, teachers can provide different modes of input and allow students to show what they know in different ways. Activities to help assess student language can include those listed in Figure 3.2 and many others.Examples of informal language assessments can be found at the website for Informal Language Assessment: http://jeffcoweb.jeffco.k12.co.us/is/web/docs/MAST/Informal_Language_Sample_for_use_with_Interpreter_1-31-05.doc.; and from Colorin Colorado (2007), *Using Informal Assessments for English Language Learners* (http://www.colorincolorado.org/article/14318).

Activity	Purpose
Story retelling: After reading, students describe what they understood.	Get a general idea of what the student focused on (main ideas? details? isolated vocabulary?) and what the student understood from the story.
Role playing: Students act out what they know or what they understood about a topic or reading.	Provides students with an alternative way to show what they have comprehended (and thus what they still need to understand).
Oral reporting: Students produce a short extemporaneous or formal oral report about a topic.	Pronunciation, vocabulary use, productive grammar, and presentation skills can be evaluated while the teacher listens.
Brainstorming: Students generate ideas informally either in groups or alone.	Vocabulary and other language use can be assessed as students participate in brainstorming both orally and in writing.
Playing games: Students participate in games involving language reception and production.	While students are relaxed and engaged, their language use and understanding can be observed.

Figure 3.2 Activities for assessing language needs.

Understanding Educational/Academic Background

In addition to language background, each student's educational background is important for teachers to investigate. One of the first places to look for academic information about students is in their school files. If a student has been in the district for a while, this file may contain test scores, previous grades, teacher comments, data on previous educational experiences, an individualized education plan (IEP), notes on academic strengths and weaknesses, and information about family context. Questions that might help teachers understand students' educational backgrounds include the following:

- How many years has the student been in school? How many of those years were spent in the United States?
- What is the last grade level the student attended?
- Can the student read and write in the native language? How well?
- What help does the student have to study?
- Where does the student need the most help?

Although some of this information may be available from school records, sometimes such records do not exist, and knowing how many years and where students attended school is not always enough to know what they have experienced or continue to experience. Other questions about their educational background that can be important are whether they are accustomed to collaboration or independence and/or rote or creative learning, types of testing they are familiar with, their and their parents' expectations for student and teacher behavior, and what grades mean to them and their families (Peregoy & Boyle, 2008). Surveys and discussion can be useful techniques for gathering this information; for additional information about collecting student information, see Breiseth (2019). Answers to these questions can help teachers understand which school-based strategies they might need to teach, not in order to replace students' home traditions and expectations but rather as another tool to help them succeed. For example, Saville-Troike (1978) notes that "students should be taught, at least by the secondary level, that asking questions and volunteering information is not considered inappropriate or overly aggressive in school, but rather is valued, and often rewarded with a higher grade. Teaching this, and guiding students to behave accordingly, is part of teaching the second culture" (p. 44). Some ELLs may even need to be shown that it is okay to raise their hand to ask to go to the bathroom or get a drink.

Discovering Content Background and Knowledge

Understanding students' language and academic background is important, but equally essential is discovering students' levels of content knowledge. Sometimes teachers can use student files, the curriculum for the previous year, previous teachers' input, and academic testing to discover some of the content that students should or do know and what they need to learn. Using surveys, discussion, and other techniques mentioned in this chapter, teachers can collect additional data. Most important is to separate content knowledge and language knowledge. Just because a student cannot express something in writing in English does not mean that the student does not know it. Allowing students to express their content knowledge and their needs through drawing, acting, singing, playing, and other modes can provide the teacher with a well-rounded picture of students' understandings (and misunderstandings).

One useful technique for understanding and activating student content knowledge is the use of a KWL or KWLS chartFind a KWLS template at ReadWriteThink (http://www.readwritethink.org/lesson_images/lesson398/kwls2.pdf). or one of its many modifications. At the top of the chart, column headings are (1) Know, (2) Want to Know, (3) Learned, (4) Still Want to Learn. The first column along the left side of the chart is filled in with upcoming content. For example, if the students will be studying weather, this column might contain "the water cycle," "tornado," "hurricane," "sleet," or other ideas and concepts from the upcoming lesson. Before the lesson or unit, students fill in the "Know" column (in a group or individually) with information that they already know about the topic. Teachers can encourage students to write, draw, or use other modes. They can then complete the "Want to Know" column, asking questions or describing what they hope to understand from their study. After the unit or lesson, students finish the last two columns. Using this technique, teachers can discover student knowledge, interests, and progress and build on this information in an ongoing way.

KWLS can assist teachers in understanding some things about students' interests, but in order to choose content that will engage learners, a more in-depth exploration of their interests might be warranted. Interest inventories, or surveys of student interests, are useful tools for finding out this kind of information. Teachers can create their own interest inventories or they can find ready-made inventories on the World Wide Web or through other teachers. These can be addressed to students or parents, and they can focus on general information; provide pictures that students respond to; or ask

topical interest questions with specific science, math, or social studies content. Some resources for KWLS and interest inventories are listed in Figure 3.3.To get started developing an inventory, go see http://faculty.citadel.edu/hewett/web_files/interestweb.html. Teachers can also discover students' interests through conversation and many of the other techniques outlined in this chapter. Of course, any technique must fit the ages and abilities of the students or it will not be as successful as it could be.

Technique	Purpose/Examples
KWLS: A chart in which students note what they know, what they want to know, what they have learned, and what they still want to learn.	To discover specific knowledge and interests that students have before and after lessons or units. KWL template from Teach-nology: http://www.teach-nology.com/cgi-bin/kwl.cgi KWL generator: http://www.teach-nology.com/web_tools/graphic_org/kwl/ KWHL Chart: http://www.ncsu.edu/midlink/KWL.chart.html
Interest inventories: General and specific surveys that describe students' interests.	To understand the different interests among students in the class. General: Student Interest Inventory (elementary) www.sanchezclass.com/docs/student-interest-inventory.pdf The Learner—Interests (elementary and secondary): http://www.saskschools.ca/curr_content/adapthandbook/learner/interest.html Questions addressed to parents: Parent Inventory http://www.circleofinclusion.org/english/pim/eight/parent.html How to Implement a Student Interest Survey: http://www.ehow.com/how_2058230_implement-student-interest-survey.html

Figure 3.3 Techniques for understanding content knowledge and interests.

Exploring Cultural Background

STOP AND DO: Cultural Knowledge

Examine the list in Figure 3.4 and mark with an X the common behaviors that might be misunderstood by students from different cultures. For the list items you mark, if you can, note the cultural group of the students who might misunderstand. (Answers can be found in the Appendix A.)

Behavior	Might Be Misunderstood	Cultural Group That Might Misunderstand
Sitting with legs crossed and your shoe pointed or shoe sole turned toward your students.		
Making the "okay" sign with your thumb and first finger.		
Telling your class to take a "bathroom" break.		
Shaking hands with a parent.		
Waving with your whole hand.		
Touching a student on the head, giving a high-five, or patting a student on the back.		
Signaling to a student by using one finger.		
Taking a student's photograph.		

Figure 3.4 Common teacher behaviors.

The most crucial information to gather for some students is cultural background. Peregoy and Boyle (2016) note that understanding some of students' religious beliefs, cultural preferences and prohibitions, and home responsibilities can help bridge the divide between home and school by helping teachers choose how to organize their instruction and understand students' reactions to it. Saville-Troike (1978) adds that it is very important to know who in the family is an appropriate person to reach. Teachers can also find out students' and their families' values, beliefs, roles associated with gender and age, expectations of schooling and teachers, and attitudes toward English language and cultures. Saville-Troike notes that the point of gathering cultural knowledge is to accept and accommodate "the student's native culture to the extent possible; the teacher, indeed the whole educational system, should seek to expand and enrich the existing repertoire of teaching styles, instructional activities, and even administrative procedures to provide for the cultural diversity of students" (p. 43).

To understand students' cultural backgrounds, Robertson (2007) suggests that teachers "start by researching your students' native countries, cultures, and educational systems. You may even want to study the historical figures, musical and artistic traditions, geography, and biodiversity of these countries so that you can connect your lessons to something that the students already know" (n. p.). The brief overviews of every country in the world provided in The World Factbook (https://www.cia.gov/library/publications/the-world-factbook/) includes free texts, maps, photos, and other information about every country in the world that both teachers and students can use.

As noted previously, however, there can be many cultures within a country, and people are individuals within those cultures, so surface information is not enough. For deeper questions about culture, Saville-Troike's (1978) *A Guide to Culture in the Classroom* provides 20 categories with sample questions and explanations of why the answers might be important to know. Categories include *Natural Phenomena, Time and Space, History and Traditions, and Decorum and Discipline*; they provide a general framework for understanding their significance. In "Getting the Answers," Saville-Troike describes how teachers might go about obtaining the information they need. This resource is essential reading for all teachers and a great place to start understanding how culture can affect learning in classrooms. Another useful text is Egbert and Ernst-Slavit's (2017) text, written by teams of L1 and L2 speakers about various nations and cultures.

Other techniques for gathering cultural and family data include some already mentioned in this chapter, for example:

- Interviews with parents and community members. These can take place at school, in the home, or in a safe community setting. The home visit guide found in the Appendix B can help facilitate such events. You can also read an expanded version of this guide by Ernst-Slavit and Mason (2012) at *¡Colorín Colorado!* (https://www.colorincolorado.org).
- Dialogue journals. For students who prefer to communicate orally, technologies like Voicethread (http://voicethread.com) an oral and text-based discussion board, are excellent tools.
- Personal narratives and stories in the L1 or English. These can be supported by technologies such as PowerPoint so that students can make them as clear and comprehensible as possible.

Still more techniques include having students create graphical representations of important life events or experiences in quilt squares, cartoons, or picture-book formats; encouraging visits from parents who are willing to share parts of their culture, whether native or non-native; cultural journals in which students note how their lives are or are not like those in the books they read, the people they meet, and the school life in which they participate. Saville-Troike (1978) recommends an approach that is relativistic and flexible for all teachers. No matter which strategies are used, it is crucial that teachers do not expect that all students from one country or even one culture share the same traditions and

taboos, and they must be sure that students are treated like the individuals they are.

STOP AND THINK

What barriers to communication might teachers find when attempting to understand more about students' cultures? Think of ways to overcome these barriers.

Guidelines for Understanding Student Strengths and Needs

In addition to the techniques offered previously in this chapter, three important guidelines can assist teachers in collecting information and thinking about the diverse learners in their classrooms.

Guideline 1: Model the techniques

It is quite possible that the techniques and strategies suggested in this chapter might be strange or inexplicable to some students, regardless of their background. In these cases, the teacher can model how, for example, to use a dialogue journal or KWLS chart and suggest why survey data and other information is necessary. Sharing appropriate personal stories and then relating them to learning helps students understand this connection.

Guideline 2: Try not to assume

In one fourth-grade classroom with which we are familiar, a new student from China wet his pants in class three days in a row. The teacher assumed that he had a medical or psychological problem and contacted both the school administrators and the parents. When the teacher was finally able to speak with a parent, the parent explained that the student was unsure of the rules; he was embarrassed to ask whether using the facilities during class was permitted and what the procedure was for leaving the room during class. There are many other stories (for example, teachers believing that students who did not look them in the eye did not know the answer, or students being punished for not participating in practices forbidden by their home culture) that show how important it is for teachers to find out rather than assume.

Guideline 3: Embrace variety

Saville-Troike notes that "[t]eachers are models; what they value and respect is often valued and respected by their students as well" (p. 44). She suggests that these values, and those of the cultures of all students in the classroom, should be explored and, as necessary, be the subject of explicit instruction. Because there is such diversity in the backgrounds and interests of any group of students, teachers may use a variety of methods, strategies, techniques, and modes to help all students access content and language, and, according to Saville-Troike, never assume there is one best way to teach anything.

Figure 3.5 summarizes these three basic guidelines for language instruction. Additional guidelines are presented throughout this book.

Guideline	Process
Model the techniques and strategies that you want learners to use.	Explain the purpose of data collection and how the technique works. Share personal information on culture, interests, and other topics to pique student interest and create community.
Never assume there is one best way to teach anything.	Ask students about their behavior before judging it.

Embrace variety in planning and instruction to accommodate the diverse needs and backgrounds of all learners.	Use a variety of methods, strategies, and modes to help students access content.

Figure 3.5 Guidelines for understanding student needs.

STOP AND THINK

After reading Chapter 3, what advice would you give to the teachers in the chapter-opening scenarios?

Conclusion

Students learn more and better when they can use their individual funds of knowledge to support their learning. Understanding student strengths and needs means that teachers are more aware of what helps learners succeed and in what areas. There is a lot more to say about the hows and whys of understanding students' backgrounds and experiences, and additional activities and techniques can be discovered through Web searches, in conversations with teacher peers, and in books about teaching. The most important aspect is teacher awareness about the need to keep eyes and ears open to understand students. The importance of teacher awareness will be reviewed in Chapters 4, 5, and 6. These chapters discuss planning instruction based on an understanding of student strengths and needs.

Extensions

For Reflection

1. *Assessing student needs*. What other ways can you think of for assessing student strengths and needs? Think about the ways you and your students do or will communicate. How can you use such communication to find out more about your students?
2. *Reflecting on barriers*. In what ways might students' home cultures conflict with the culture of schooling in the United States? Think of some examples of student behavior that you have seen in classrooms and that provoked a specific reaction in you. Might there have been an explanation for that behavior other than the one that occurred to you?

For Action

1. *Learn about culture*. Review one country's information from The World Factbook https://www.cia.gov/library/publications/the-world-factbook/. List facts and ideas that might cause conflict or misunderstanding for students from this country and culture in U.S. classrooms. List ways in which you might build on knowledge of this culture.
2. *Create a culture survey*. Read Saville-Troike's (1978) work (see the References at the end of this text). Use some of her questions to create a culture survey for your current or future class. Explain why you chose those questions.

4

Chapter 4: Writing and Teaching to Language Objectives

Key Issues

1. All teachers are language teachers.
2. Language and content strengths and needs provide a foundation for creating learning objectives.
3. Content objectives support facts, ideas, and processes.
4. Language objectives support the development of language related to content and process.
5. Objectives must be directly addressed by lesson activities.

As you read the scenarios below, think about how your classroom context might be like those of the teachers depicted. Reflect on how you might address the situations these teachers face.

Scenario 1
Mary Alvarez was concerned. Her fourth-graders, a mix of native English speakers and English language learners (ELLs) with a variety of different skills and knowledge, seemed to understand the math content she was teaching, but they could not express it in ways that would help them to pass the written math exit test for fourth grade. Their lack of appropriate math vocabulary and process writing skills made their explanations difficult to evaluate. Ms. Alvarez's understanding was that, if students were exposed to language and grammatical structures, they would be able to pick them up. However, her students did not seem to be doing so with any consistency during her math lessons.

Scenario 2
Peter Morello conducted ongoing, formative assessment in his high school biology class. He closely monitored the students' progress toward mastering the content objectives and incorporated scaffolding at every opportunity. He felt that his students were not really grasping the concepts he was teaching, and when it came time to present their understandings, the students had many spelling and grammar errors and could not adequately express what they had found during their lab investigations. When he mentioned this problem in the faculty lounge, other teachers agreed that it was an issue. It was not only the ELLs, however; many of the other students were not picking up what they read in their texts and they could not express themselves in grammatical English. Like some of the other content teachers, Mr. Morello felt that the English and English language learning (ELL) teachers should be addressing these issues with students while he focused on science content.

STOP AND DO

Before reading the chapter, discuss with your classmates why the students and the teachers in the scenarios may be having problems. What information or understandings can provide solutions for the teachers?

Background

Both teachers in the chapter-opening scenarios recognize that their students need language help. Like many teachers, however, they have misunderstandings about how language learning occurs, a lack of knowledge about how to integrate content and language, and no notion of why they should. Teachers can help students access the academic content of the class; however, if language is a barrier to access, then they must also consider ways to help learners access the language they need. Contrary to Ms. Alvarez's belief in the scenario, students do not "absorb" language without scaffolding and focused attention, just like they need for learning content (Crawford & Krashen, 2007). A specific focus on central skills and concepts is critical to learning both language and content.

This specific focus on language is important in all classrooms, whether content is presented in an elementary classroom in a thematic unit or in a secondary classroom as a discrete subject. This focus is important because, as we outlined in Chapter 1, each content area has jargon, technical vocabulary, and genre that is specific to that content area. Because ELL and other language teachers may not be well versed in the vocabulary and discourses of all the content areas, regular classroom teachers are probably best suited to teach these types of language with the support of language educators. In essence, all teachers are language teachers to some extent, even if they teach the language of only one content area, as they often do at the secondary level.

Chapter 3 focused on understanding students' needs, backgrounds, and interests. Although content standards and goals for specific grade levels are often prescribed in statewide curricula, the objectives and activities that help learners reach those goals can and should be based on what teachers discover about their students. This chapter focuses on integrating social and academic language needs into content lessons so that all students can access the academic content. An important aspect of teaching language across content areas and themes is understanding how to develop appropriate and relevant language objectives as part of lessons. The development of language objectives and activities that support the objectives is the main emphasis of this chapter.

Understanding Objectives

Different texts call learning objectives by different terms, but it is the idea behind them that is important rather than the exact label. In this text, **objectives** are statements of attainable, quantifiable lesson outcomes that guide the activities and assessment of the lesson. Objectives differ from **goals** and **standards**, which can also be called "learning targets" and are very general statements of learning outcomes. Objectives are also different from **activities** or **tasks**, which explain what the students will do to reach the objectives and goals. Objectives typically follow a general format, as outlined in the formula below:

"Students will be able to" + concrete, measurable outcome + **content to be learned**

The three parts of this formula are equally important. First, "students will be able to"—often abbreviated SWBAT—indicates that what follows in the objective are criteria against which a student's performance can be evaluated after the lesson. Note that starting an objective with the words "Students will" is not the same as SWBAT because "Students will" indicates what activities the students will *do* rather than the *outcomes* that they are expected to achieve from participating in the activity. Second, the concrete, measurable outcome presents the criterion that the evaluation will focus on. The chart in Figure 4.1 presents a list of possible action verbs that can be used to state the measurable outcome.

Finally, the third part of the objective states the exact content to be learned and sometimes also includes to what degree it should be mastered (100% accuracy, 9 out of 10 times, etc.).

abstract	contrast	dramatize	introduce	recall	
activate	conduct	**e**mploy	investigate	recognize	skim
adjust	construct	establish	list	record	solve
analyze	criticize	estimate	locate	relate	state
arrange	critique	evaluate	modify	reorganize	summarize
assemble	define	examine	**n**ame	repeat	survey
assess	demonstrate	explain	**o**bserve	replace	test
associate	describe	explore	organize	report	theorize
calculate	design	express	**p**erform	research	track
carry out	develop	**fo**rmulate	plan	restate	translate
categorize	differentiate	**g**eneralize	predict	revise	use
change	direct	**i**dentify	prepare	select	verbalize
classify	discover	illustrate	produce propose	sequence	visualize
compare	distinguish	infer	rate	simplify	**w**rite
compose	draw	interpret		sketch	

Figure 4.1 Measurable verbs.
Source: Adapted from Action Verbs for Learning Objectives © 2004 Education Oasis™ http://www.educationoasis.com

Content objectives

Most mainstream teachers are accustomed to writing content objectives. Content objectives support the development of facts, ideas, and processes. For example, in a unit about the Civil War, one of the content objectives might be:

> SWBAT *name* **three of five central causes of the Civil War in writing.**

Others might include

> SWBAT *list* **the major battles of the Civil War.**

or

> SWBAT *recite* **the first section of the Gettysburg Address.**

Which objectives the teacher chooses may depend on the dictates of standards, grade-level requirements, and curricula. Whatever criteria are used for choosing them, those objectives should be developed based on what students already know and need to know and provide a strong guide for the development of the rest of the lesson.

STOP AND DO

Look at the standards and other content requirements for teaching in your current or future area(s). Write one or more content objectives that might be appropriate for the students that you plan to or do teach. Refer to Figure 4.1 for action verbs. Then review others' objectives and see what questions you still have about content objectives.Find state and national standards by content area on the Education

World website at http://www.educationworld.com/standards/index.shtml.

Language objectives

While content objectives emphasize facts, ideas, and content processes, **language objectives** support the development of language related to the content and process. This relationship is shown in Figure 4.2. Although some content standards and curricula do address general language and communication goals, language objectives are specifically based on helping students access the content of a particular lesson. Because there may be many language objectives that could help learners access the content of each lesson (too many to address in one lesson), they are also created based on the teacher's knowledge of students' current language skills and abilities.

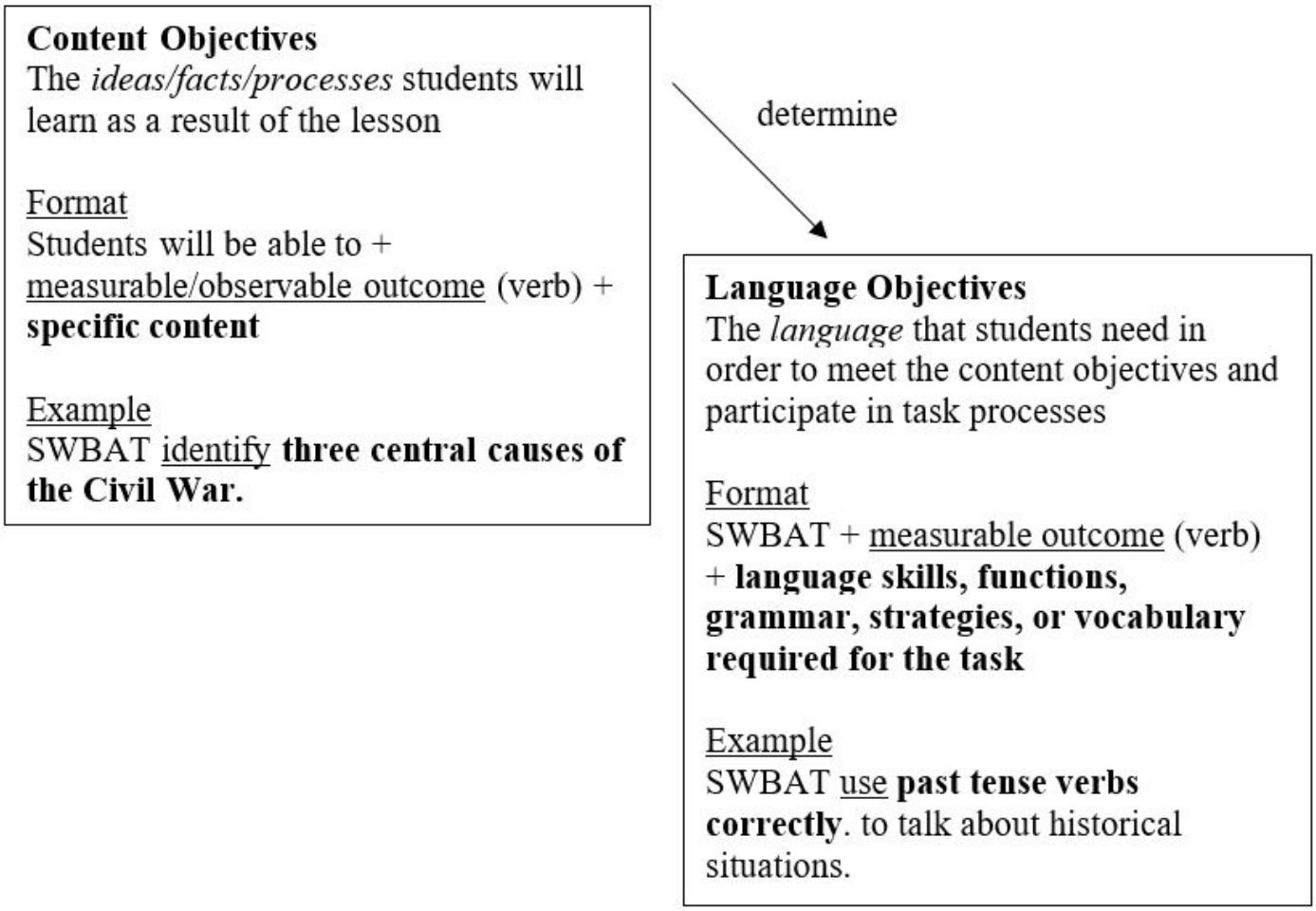

Figure 4.2 The relationship between content and language objectives.

Constructing Language Objectives

The first step in creating language objectives is to determine social and academic language needs based on content objectives. Language needs can fall into these five general categories (adapted from Echevarria, Vogt, & Short, 2016):

1. **Vocabulary**: Including concept words and other words specific to the content, for example, words that end in *-ine*, insect body parts, parts of a map, precipitation, condensation, and evaporation.
2. **Language functions**: What students can do with language, for example, define, describe, compare, explain, summarize, ask for information, interrupt, invite, read for main idea, listen and

give an opinion, edit, elicit elements of a genre.

3. **Grammar**: How the language is put together (its structure), for example, verb tenses, sentence structure, punctuation, question formation, prepositional phrases.
4. **Discourse**: Ways students use language, for example, in genres such as autobiographies, plays, persuasive writing, newspaper articles, proofs, research reports, speeches, folktales from around the world.
5. **Language learning strategies**: A systematic plan to learn language, for example, determining patterns, previewing texts, taking notes.

For example, the chart in Figure 4.3 shows some of the language in these categories that students might need in order to meet the stated content objective in a lesson on the Civil War.

<table>
<tr><td colspan="5">Content Objective:
SWBAT state three of five central causes of the Civil War in writing.</td></tr>
<tr><td>Vocabularyslavery
North
South
economy
secession
federal
abolition</td><td>Grammar
Past tense
Complete sentences</td><td>Discourse
Narrative and report genres</td><td>Functions
Identify main ideas.
Make a statement.
Summarize.
Define words.
Use cause and effect.
Spelling.
Arguing.</td><td>Strategies
Take notes.
Listen strategically.</td></tr>
</table>

Figure 4.3 Determining language needs.

STOP AND THINK

Can you think of more examples of the five kinds of language listed previously? Can you think of other types of language that students might need in order to meet the content objective in Figure 4.3? Depending on the teacher's understandings of her students' language needs and on what she sees as the most important language elements to emphasize, she might choose one or more of the following language objectives for this lesson:

- SWBAT *spell* **the following vocabulary correctly: economy, secession, federal, abolition**.
- SWBAT listen carefully for **main ideas from a reading on the Civil War**.
- SWBAT *use past tense verbs to write* **complete sentences**.

There are many variations on language objectives, and the basic formula presented above can be used for all of them. There are also variations on this basic formula that add context, grammatical structure, and other elements to the objectives. Examples are presented in Figure 4.4.

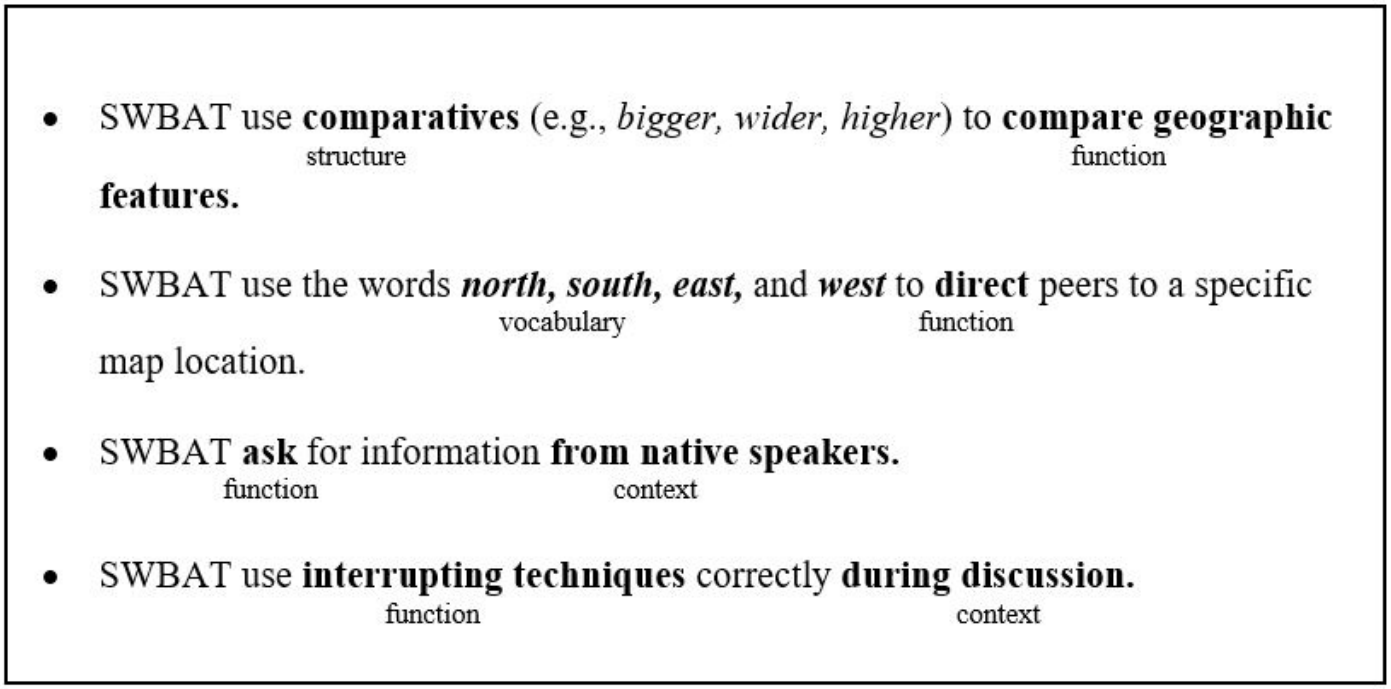

Figure 4.4 Sample language objectives.

Figure 4.5 demonstrates an abbreviated process for determining language objectives for a variety of content areas. The topic of the lesson is first established (column 1) and the content objective(s) are created (column 2). From the content objective(s), a list of the types of language needed to access the content is developed (column 3). Student backgrounds are considered (column 4), and then language objectives that address student needs are produced (column 5). Notice that the objective presents the language to be learned or used first, and then it addressed the context or conditions in which it will be learned or produced.

Topic	Content Objective	Sample Language Needed	What Students Already Know	Possible Language Objective
Arctic animals	SWBAT identify the habitats of Arctic animals by writing the name and the place.	Vocabulary like the names of the animals and habitats, spelling, defining.	The names, but not the definitions, of the habitats.	SWBAT write the definitions of Arctic animal habitats.
Our Community	SWBAT describe five important community landmarks.	Adjectives, present tense, prepositions of location.	They can use many adjectives but need more. They know simple present tense.	SWBAT use prepositions of location accurately.
Ancient Greece	SWBAT explain three contributions to current life made by the ancient Greeks.	Past tense, present tense, sentence format, connectors (*in addition, another*, etc.).	They know how to make past and present tense sentences.	SWBAT use connectors correctly in oral and written texts.
Sports	SWBAT demonstrate the rules of American football.	Sequencing (*first, second, third, next*); modal verbs (*can, can't, should, have to, must*); football vocabulary.	They have already learned the vocabulary.	SWBAT use sequencing words to explain a series of events or items

Argument	SWBAT compose a five-paragraph argumentative essay.	Essay format, paragraph format, sentence format, topic sentences, conclusions, logic, argument support.	They understand paragraphs and sentences, but they do not know about persuasion/ argument.	SWBAT construct an argument with three reasons to support their position.
Graphs	SWBAT compare the effectiveness of pie charts, line charts, and bar graphs given specific data.	Comparatives; vocabulary such as *graph*, *chart*, *data*; present tense	They know the vocabulary.	SWBAT use comparatives to write present tense

Figure 4.5 Sample objective development process.

STOP AND DO

Look at Figure 4.5. For each objective, underline the concrete, measurable outcome and circle the content to be learned. Check your answers with a partner.

Every content objective does not necessarily require a language objective, and some lessons do not have language objectives at all because all students can access the content with skills and vocabulary that they already possess. However, it is important to examine possible language barriers to content in every lesson and to address them if needed.

In summary, the important features of language objectives include the following:

- They derive from the content to be taught.
- They consider the strengths and needs of students.
- They present measurable, achievable outcomes.

STOP AND DO

First, review the objective(s) you wrote for the Stop and Do about content objectives above. List all of the potential language that students might need in order to access the information and achieve the objective(s). Then choose the most important language, without which students could not possibly access the content, and write one or more language objectives that address this language need.

Teaching to the Language Objectives

Creating language objectives is a good start for addressing the social and academic language needs of students, particularly ELLs, but equally important is that lesson tasks address the objectives. This chapter presents some guidelines for making sure that students meet the language objectives. Chapters 7–11 present specific ideas for teaching to language objectives in a variety of disciplines.

Guideline 1: Integrate language and content

Just as tasks that address content objectives are integrated into the whole lesson rather than being addressed one by one, language objectives should also be integrated into the lesson and not taught in isolation from it. For example, these objectives were chosen for the Civil War lesson:

> Content: SWBAT *state* **three of five central causes of the Civil War in writing.**
> Language: SWBAT *use reading strategies to uncover* **main ideas from a reading on the Civil**

War.

The teacher *could* teach about the central causes of the Civil War, separately teach how to identify main ideas, and then hope that the students will apply their knowledge to their Civil War task. This process, however, is problematic in several ways. First, it indicates to students that language is separate from content when it is actually derived directly from the content. In other words, teaching the language objective without content removes much of the context for the language. Second, it breaks up the lesson into chunks, each of which constitutes a separate preparation for the teacher. This is neither an efficient use of the teacher's and students' time nor an effective way to teach language.To decontextualize means to consider something alone or take something away from its context. As noted in Chapter 1, some authors believe that all language is contextualized to some extent, but treating language separately from content takes away the specific context that gives the language meaning, making the language more difficult to understand and use.

A better choice is for the teacher to integrate the content and language. So, for example, while the students are looking for the causes of the Civil War in their textbooks, the teacher can ask them how they figure out what the causes are, and the students can make a list of strategies to find main ideas. They can practice together by finding the first cause of the Civil War and explaining to each other how they found it. This choice makes the lesson more efficient (by teaching the two objectives at the same time) and effective (helping students see how language and content are related and moving them toward reaching both objectives).

Guideline 2: Use pedagogically sound techniques

In the past, language was typically taught through drill and practice, exercises with few context clues, and mechanical worksheets. Research has found that these techniques are effective for very few students in very limited contexts. Effective language instruction, in addition to being integrated into content instruction, should meet the following basic criteria:

1. *It is authentic*. This means that it comes from contexts that students actually work in and that it is not stilted or discrete just for grammar study. It is language that students need for a real purpose.
2. *Language is taught both explicitly and implicitly*. Students are both directly exposed and indirectly exposed so they can use strategies to figure out some meaning on their own.
3. *It is multimodal*. Students are exposed to language through different modes such as graphics, reading, and listening, and they can respond in text, drawing, and voice.
4. *It is relevant*. Not all students in a class need all of the language instruction. The teacher can choose to whom the lesson is aimed (small groups, individual students, the whole class) to make it relevant.
5. *It is based on interaction*. Collaboration and cooperation help learners test their assumptions about language.
6. *You as a language teacher*. How are you, or will you be, a language teacher? Think about the ways you and your students use or will be required to use language in your classroom. What do these uses mean for your teaching?
7. *Choosing modes*. Think about a lesson you have observed or taught. How can you include more modes so that students are exposed to language in a variety of ways?

For Action

1. *Meeting the standards*. Choose one of the content standards from your current or future grade level or content area. Develop one or more content objectives and then create language objectives for the same standard.

2. *Break down language*. Choose a grammar point, language function, or discourse. Using any resources that you need to, list all the aspects of your choice and describe how you might use steps to teach your choice to your current or future students.

Extensions

Crawford, J., & Krashen, S. (2007). *English learners in American classrooms: 101 questions, 101 answers*. New York: Scholastic.
Echevarria, J., Vogt, M., & Short, D. (2016). *Making content comprehensible for English learners*. Boston, MA: Pearson/Allyn & Bacon.

5

Chapter 5: Connecting to Students' Lives

Key Issues

1. All students bring experiences and knowledge to school.
2. Connections between students' lives and the task demonstrate to students reasons for listening and participating in tasks.
3. Connecting tasks and topics to students' lives increases engagement.
4. Connections can be made by teachers or students.

As you read the scenarios below, think about which students might be more engaged in the lesson.

Scenario 1
At Ben Franklin Elementary, sixth-grade teacher Anita Johnson is introducing a new math unit on fractions. She tells the students, "This week we're going to finish pages 73–84 in our math books. The unit is about multiplying and dividing fractions. The test will be next Monday. I'll show you the basics before we get started."

> A general groan arises from the class.
> "Why do we have to know this?" one student asks aloud.
> "Because it's in the curriculum," replies Ms. Johnson. "Now, let's get to work."

Scenario 2
In the other sixth-grade class at Ben Franklin Elementary, Kristin DeLuca is also introducing the unit on fractions. She tells the class, "I want to tell you a story before we start our new math unit. The other day I was making cookies. I thought I was measuring ½ cup of flour, but after I had dumped the flour in the bowl along with some other ingredients, I realized that I had accidentally used the ⅓ cup measure instead of the ½ cup measure. I didn't have enough ingredients to start over, and I had to bring the cookies to a dinner I was attending that night. How do you think I fixed this problem?" As the students offer possible solutions, Ms. DeLuca has an opportunity to emphasize the importance of knowing about fractions in daily life. She proceeds to ask the students: "Has anyone in this class ever had an experience like this?" and "Why is it important to understand fractions?" Then she says, "Remember when we talked about how math is important in real life? Fractions have a lot of uses. Let me read you this short story about how knowing fractions saved someone's life. But before I do that, let's talk about a couple of important vocabulary words . . ."

In the chapter-opening scenarios, the approaches of the two teachers are completely different. This does not mean that students cannot or will not learn in both situations. However, Ms. DeLuca is giving

her students more opportunities and reasons to access the content and language of fractions by connecting the content to her students' lives and funds of knowledge. By also providing scaffolding in the form of vocabulary support, she helps more students to participate.

STOP AND THINK

Before reading the chapter, think about how you might introduce an important concept so that all students have access to the ideas.

Chapter 3 focused on understanding students' strengths, needs, backgrounds, and interests, and Chapter 4 introduced the topic of creating language objectives based on those needs. Although providing language objectives and teaching to those objectives based on students' language needs are excellent steps for helping students access lesson content, these steps may not be enough for students from diverse backgrounds. This chapter focuses on making initial connections to student backgrounds to help students link to their previous learning and to their lives outside school.

Teachers can often introduce their lessons with connections to students who have lived in their area or been in their school for a while or who are familiar with mainstream culture and lifestyles. However, newcomers and students with different experiences might find it more difficult to connect to lessons, and teachers may need to think deeply to find a common connection to reach all students. The development of connections and finding ways to involve students in lessons through these connections are the focus of this chapter.

Background

Educators in a variety of academic areas have written recently about the need to connect content and pedagogy to students' lives. These connections are important, as Robertson (2019) notes:

Learning something new is like stacking building blocks. The more you have, the higher you can go. It is not always apparent what building blocks ELLs come with due to language barriers, and sometimes ELL students don't connect their previous experience with the lesson currently being taught. That is where the teacher's skill at drawing on background knowledge becomes so important (n.d.).

In other words, making connections can make learning meaningful for students (Echevarria, Vogt, & Short, 2016). In turn, learners may be more motivated to learn the content and language that they need in order to work toward their life goals. In addition, research has long shown that teachers who connect new learning to students' backgrounds increase student comprehension (Christen & Murphy, 1991; North Central Regional Education Laboratory, 1995; Taboada & Guthrie, 2006; Ziori & Dienes, 2008). Another important result of making connections is "far transfer," or the ability of students to use their language learning in new, unfamiliar situations (for more information, see, Barnett & Ceci, 2002; Sala & Gobet, 2017). In other words, making connections can provide students with greater opportunities for achievement both inside and outside school.

It is important to note that, if teachers do not understand their students' needs, interests, and backgrounds, they will not be able to make clear connections or help their students make these connections. The strategies for collecting information about students, outlined in Chapter 3, are the first step toward making connections with students. The next step is to use the information to make clear and effective connections among content, language, and the students' lives.

Understanding Connections

There are three main types of connections that are important for students. As Echevarria, Vogt, and Short (2016) note in their *Sheltered Instruction Observation Protocol* (SIOP), two of these are (1)

explicitly linking to students' background experiences and (2) explicitly linking past learning and new concepts. The first is what can be called a **personal connection**, or a clear connection to students' lives outside school. These connections answer the "So what?" or "Why is this important?" types of questions for students. The second is an **academic** or **content connection**, which is a connection to previous school learning—often an earlier lesson—so that transitions are clear and learning builds on previously addressed academic language and experiences. These two connections, personal and academic, fall under the category of activating prior knowledge (Ferlazzo & Sypnieski, 2018). In addition to these two connections is (3) a **pedagogical** or **instructional connection**, which includes strategies and choices that the teacher makes to address student needs, interests, and background directly. Making a pedagogical connection includes pre-teaching vocabulary, providing students with choices of ways to express themselves, and many other strategies. Pedagogical connections will be discussed in Chapter 6. Personal and academic connections, summarized in Figure 5.1, will be described in more detail in this chapter.

Type	Explanation
Personal	Links students' lives and lesson ideas.
Academic/content	Links students' past learning and new concepts.

Figure 5.1 Summary of connection types.

Making personal connections

Where the curriculum is less restricted and teachers and students can choose topics and questions to explore together, it is easier to make connections to students' lives. Where the curriculum is more prescribed and materials preselected, there are many ways to make connections, but it might be harder to think about how to make them applicable to all students. For example, some students may have never celebrated Thanksgiving or may not have, in their home culture, a similar feast. Others may have no idea about American wars or have never seen snow. How can personal connections to these topics be made?

STOP AND DO

Look at the worksheet in Figure 5.2. Before reading further, try to fill in the blanks with a personal connection that all students might be able to make for the lesson topic that is printed in the first column.

To help students make a personal connection to the lesson content, the teacher can start by thinking about what the main topic or idea of the lesson is. The next step is to think of ways, based on knowledge of students' backgrounds, that students might have experience with this main topic. If there is no real link, the next step is to go from the very specific content of a lesson to a more general exploration of the experiences included within the topic, and then choose the one that most of your students have likely had some experience with. For example, for a lesson that includes the content objective "SWBAT explain the purpose of Thanksgiving," the teacher might think:

Lesson Topic	Personal Connection
Example: Thanksgiving	Celebrations
Maps	
Battle of Bull Run	

The Parthenon	
Penguins	
Sacagawea	
Geometric proofs	
Simple addition	
Washington, D.C./capital	

Figure 5.2 Creating personal connections

- **Specific focus:** *Thanksgiving.* Other countries don't celebrate this U.S. holiday, so my ELLs may not know about it.
- **More general idea:** *Feasts.* Many other countries and cultures do have holidays, some of which include feasts. It's not certain that all of my students have had a feast.
- **Most common idea:** *Celebrations.* All countries and cultures have some kind of celebration. This would be a good place to start to make connections with students' lives.

In another instance, the teacher might go through this thought process for the objective "SWBAT acquire the knowledge and skills necessary to perform scientific inquiry":

- **Specific focus:** *The Western idea of inquiry.* This notion is based in culture and is not necessarily the way inquiry is conducted in other parts of the world. My students probably need some background information to understand the purpose.
- **More general idea:** *Detectives.* Not every place has detectives, and even most native English-speaking students have probably not thought carefully about the process of detective work. In fact, what they have seen on television dramas about police work might have given them inaccurate notions about what really occurs during an inquiry process. This might be a useful way to think about or develop a future task.
- **Most common idea:** *Asking questions.* All languages have questions, even though they are asked of different people and take different forms. Therefore, all students can connect to this idea. This is also a great opportunity to introduce this grammar point!

In a final example, a lesson may have these two objectives: (1) SWBAT use past tense verbs in discussion; (2) SWBAT describe central events from the history of their state that shape its current form. In seeking a connection to all students, including those who are not from the state, the teacher may think:

- **Specific focus:** *History of the state.* Not all students are from the state and those that are may not have a connection to its history.
- **More general idea:** *History of their community.* Some students probably know something about community events, but they may not know much about its history if they were not here when that topic was studied.
- **Most common idea:** *Personal histories.* All students have pasts that they have talked and written about in class. This is a good way to connect the content objective to students' lives and to give them a meaningful reason to use past tense (the language objective).

After a connection has been made to the students using this general idea that they already understand, the teacher can involve the students in discussing their personal connections and then narrow the topic back down to the specific focus of the lesson. When students are familiar with the process, they should

be encouraged to find their own connections between their lives and the material to be studied. Students can participate in quick-writes, pair discussions, brainstorming exercises, and a variety of other tasks to help them see how the material relates to their lives. Teachers can ensure that students make the connection and can show them that their background knowledge is valued.

STOP AND DO

Choose a partner and review your choices for personal connections in Figure 5.2. Can you think of anyone who might not be able to make the personal connection you chose? Would children in poverty, ELLs, and students of different ages be able to relate? When you are finished reviewing, look at the possible answers in Figure 5.6 at the end of this chapter.

Making academic connections

Most teachers *can* make connections to students' previous learning, noting how the present lesson relates to past or other content or language learning. The issue is whether they do or not. Making this connection can be as simple as asking students, "Who remembers what we studied last week? Tell me something about it . . .. This week, we're going to build on those ideas in order to . . .." Although seemingly a simple idea, making this link can help students see the flow of their learning and associate past personal connections with content.
Which connections the teacher chooses depends on the content, language, and students, but those connections should provide a strong motivation for students to learn and use the language and content of the lesson and the background to access both. Students should also be encouraged to make connections themselves through the same kind of process. Being able to think critically and make connections is an important skill in itself, in addition to the benefits it provides for learning specific material.

Building Background Knowledge

It is important to make academic and personal connections to the lesson objectives, but teachers cannot make connections to background that does not exist. If students do not have any background in the language, concepts, theme, or content that comprises the lesson, teachers can use a number of techniques during their lesson or unit introduction to help students build the background that they need to access the content and language (see, for example, ELLevation, 2019; Logan & Kieffer, 2017). Direct instruction is one strategy that can be effective in building background knowledge; other possible techniques include:

1. *Pre-teach and reinforce vocabulary.* Vocabulary should be pre-taught (or at least reviewed) if it is essential to understanding the next component of the lesson. Simply giving a list of words with the definitions and having students use them in a sentence does not teach them vocabulary. There is not room here to mention all the ways that teachers can help their students learn vocabulary, but one important idea is that the vocabulary should be used many times in many contexts (before, during, and after the task) to help students comprehend and use it.
2. *Field trips or hands-on experiences.* If students have never really looked at the leaves on the trees around them, or if they come from somewhere where there are not many trees, teachers can take students on an exploration walk outside at the beginning of the lesson on leaves. Likewise, if students studying angles need background knowledge, they can visit homes under construction to look at angles (this can be linked to a personal connection by having them look for angles in their

own residences). For a lesson that includes a language objective for students to use appropriate vocabulary in public speaking, students can watch videos of famous speeches and note important elements. Video field trips can also be used for having experiences students cannot or should not have in person, for example, an erupting volcano, the growth of a plant from seed to full fruition, an experiment for which the school does not possess the appropriate equipment. Teachers can use discussion or response logs to make sure that students are making connections.If there is something students need to see, there is probably a video about it on the Web. Great resources include YouTube, Teacher Tube, and About.com's "Free Educational Videos on the Web."

3. *Visitors.* For a lesson on community helpers, for example, students who aren't familiar with the responsibilities of people in specific occupations can benefit from a visit from workers in those areas. Students can ask questions and explore aspects of the occupation with these guest speakers. For a unit on China, visits from Chinese community members can help dispel incorrect assumptions and build new knowledge.Search the Web for free organizers or go directly to these websites for free organizers: teachervision.com, about.com, education-world.com, teach-nology.com.
4. *Visuals.* Pictures, videos, and other realia can help students get a clear idea of a concept or language item. Graphical organizers such as concept maps, webs, and flowcharts help students organize new information and make links between it and other ideas.Technology can also help build student background knowledge. For example, see Linda Joseph's lesson plan at http://www.infotoday.com/MMSchools/may02/cybe0502.htm and read how she helped her students build background knowledge using a variety of technologies.

Figure 5.3 summarizes these techniques.

Technique	Purpose
Pre-teach and reinforce vocabulary	Provide students with ways to understand and talk about important concepts.
Field trips and hands-on experiences	Provide students with real-time experience with the lesson topic.
Visitors	Provide background through questioning, discussion, and display.
Visuals	Provide examples of the concept or language and ways to explore links among ideas.

Figure 5.3 Summary of background-building techniques.

Developing connections is the first step in helping students access the content and language outlined by the lesson objectives. The next step is to help students make these connections by integrating them into the lesson introduction. This is the subject of the next section.

STOP AND THINK

In Chapter 3, you read about understanding students' needs, interests, and backgrounds. What information might you need to collect to make effective personal and academic connections for students to the topics in Figure 5.2? How can you collect this information?

Integrating Connections

In general, once lesson objectives are set, the next step in planning instruction is to create a lesson introduction or "anticipatory set." The purpose of the anticipatory set is, in large part, to make connections. According to Lewis (2019), it should:

- Provide continuity from previous lessons, if applicable.
- Allude to familiar concepts and vocabulary as a reminder and refresher.
- Tell the students briefly what the lesson will be about, being sure to point out and discuss the language and content objectives for the lesson.
- Gauge the students' level of collective background knowledge of the subject to help inform your instruction.
- Activate the students' existing knowledge base.
- Whet students' appetite for the subject at hand.
- Briefly expose the students to the lesson objectives and how you will lead the students to the end result (p. 1).

To build background for students, teachers can think about their answers to the following questions, based on information that they have collected about their students:

1. What about this topic might interest the most students? (personal connection)
2. What have they already learned that relates to this topic? (academic connection)
3. What additional information do they need before the lesson starts? (building background knowledge)

Figure 5.4 provides examples of how connections can be integrated into the anticipatory set of a variety of teacher-created lessons. (In the lessons in this figure, the teachers refer to standards, goals, and objectives collectively as learning targets.) Teachers can encourage students to make connections in a variety of ways, from asking guiding questions to letting students brainstorm, to having students listen to a story and point out the main ideas. The anticipatory set is the starting point for the rest of the lesson and can help or hinder its success.

Content Area/Topic/Grade Level	**Anticipatory Set (Lesson Introduction)**
Science:conservation (Grade 2)	Hold up common examples of paper, plastic, glass, and aluminum/tin products and ask students questions like "Does your family buy or use any of these products?," "Where do these come from?," "What are they made from?." Write what students know about these products on the Know portion of a KWL chart. Display the learning targets and read them to students. Introduce the new science vocabulary and ask students to listen for it in a short reading. With partners, students discuss what they think the words mean and then share their ideas with the class.

Math/geometry:polygons and non-polygons (Grades 3-4)	Point out the student-friendly learning targets written on the board. Invite students to take out the “Polygon Treasure Hunt” worksheets that they completed at home. Briefly discuss the previous lesson’s discoveries about polygons. Have students, in pairs, share their polygon treasure hunt discoveries from home. As needed, ask questions about their process and outcomes. Link to the current lesson by reading with students a story about the pyramids.
Communications:media literacy (Grade 7)	Ask students, “Does anyone know what advertising is?,” “How and where have you experienced advertising?,” “How did it make you feel?.” Link to the previous lesson by noting, “Remember when we talked about conveying a theme and knowing your audience? Today we are going to talk about how media can influence your thinking and decisions.” Pre-teach new vocabulary by defining new words with students and adding them to a word wall.
Language arts:inferences (Grade 3)	Begin the lesson by talking about guessing. Ask students some issues or topics that they guess about and ask them to make guesses about certain common ideas. Connect to “educated guesses” and what makes a guess good or bad. Explain the link between guesses and inferences. As the discussion progresses, students write definitions for *guess*, *inference*, and *prediction* in their vocabulary journals.

Figure 5.4 Examples of anticipatory sets that make connections.

STOP AND THINK

Evaluate the ideas in Figure 5.4. Try to point out the personal and academic connections and any background building. Is anything missing from these anticipatory sets? Can you think of any ways to introduce the concepts that might work better for your current or future students?

Guidelines for Making Connections

Making connections is a good start for helping students access the social and academic language and content of lessons, but equally important is what students do with the connections that are made. The guidelines below explain further.

Guideline 1: Be deliberate

Teachers can carefully plan to make academic and personal connections and help students build any background necessary for each lesson. Equally important is to check that students have actually made the connection and that it has served its purpose of piquing students’ interest and preparing students to engage in the lesson’s language and content. To find out, teachers can ask, review, observe, and reiterate as necessary.

Guideline 2: Help students transfer connections back to their lives

Connections should be obvious and ongoing throughout the unit. Techniques mentioned in this text, such as having students keep a journal in which they link their learning to their lives, can be effective tools for avoiding students repeatedly asking, “Why are we doing this?”

Guideline 3: Consider culture

Connections may need to be made in different ways and for different reasons depending on the cultures of your students. For example, if students do not understand how leaving the classroom for a field trip is part of the classroom learning process, background may have to be built for this connection strategy. Similarly, if students are asked to brainstorm to make connections but are not familiar with the procedure for brainstorming, explicit instruction in brainstorming might be warranted. If the teacher sees that some students cannot or will not participate, this means rethinking how and which connections are made.

Figure 5.5 summarizes these basic guidelines. Additional guidelines are presented throughout this book.

Guideline	Examples
Be deliberate.	Check that students have made connections and that students are interested and prepared to engage in the lesson. If they are not, use additional connections and background building as necessary.
Help student transfer connections back to their lives.	Use techniques that encourage students to see the links throughout the lesson and/or unit.
Consider culture.	Use explicit instruction as needed to help students understand the process and content of the connections.

Figure 5.5 Summary of guidelines for making connections between students’ backgrounds and lesson content.

STOP AND THINK

After reading Chapter 5, what, if anything, would you have the teachers in the chapter-opening scenarios change in their instruction?

Conclusion

There is no doubt that making personal and academic connections from instruction to students’ backgrounds and interests (and vice versa) is central to their ability to access the language and content of a lesson. It also encourages students to take a personal interest in and be engaged with the content and language. However, this is only the beginning of planning effective lessons for diverse classrooms; making instructional connections in lesson tasks is also essential, as we will describe in Chapter 6.

Extensions

For Reflection

1. *Personal connections*. Think of ways in which your background connects with the content in one

of the areas you teach or will teach. How might the connections you make differ from the connections that might be made by students from another country, from a poor area of town, or from a different age group?

2. *Think back*. Reflect on a lesson or class that you found inspiring, exciting, or engaging. What connections did the teacher make for you, or did you make for yourself, that piqued your interest and encouraged you to engage?

For Action

1. *Reviewing strategies*. Choose an activity for activating prior knowledge from a website like ¡Colorín Colorado! or another resource that you have access to. Integrate this strategy into a lesson. Focus on activating both content and language knowledge.
2. *Adapt a lesson*. Find a lesson that you have created or have downloaded from the World Wide Web. Check the lesson for language and content objectives and effective personal and academic connections, then improve the lesson by adding and/or editing as needed.There are many websites that provide lesson plans on the web. Try these: *The Lessons Plan Page, The Educator's Reference Desk, Scholastic, Discovery Education*.

Lesson Topic	Personal Connection
Maps	Globes Traveling Locations of places we know
Battle of Bull Run	U.S. Civil War Civil wars Conlict
The Parthenon	Greece Religious architecture Important buildings
Penguins	*Happy Feet* Artic animals Birds
Sacagawea	Indians Explorers Helpers
Geometric proofs	Theorems Deductive reasoning Winning an argument with logic
Thanksgiving	Holidays Feasts Celebrations
Simple addition	Math Playing games (scoring, counting spaces, etc.)
Washington, D.C./capital	The United States capital State capitals Important places

Figure 5.6 Possible connections, from specific to common, for Figure 5.2

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6

Chapter 6: Designing Engaging Tasks

Key Issues

1. Tasks are designed to help students meet objectives.
2. Tasks must be engaging in order for students to learn.
3. Engaging tasks make pedagogical connections between students' backgrounds and needs in relation to the objectives.
4. Tasks should incorporate culture and be culturally responsive.
5. Students can help design and carry out tasks.

As you read the scenario below, think about issues that the principal needs to address with Mr. Carhart.

Dr. Johnson, the principal of Franklin Middle School, was conducting the mandatory annual review of his teachers. Mr. Carhart, a ninth-grade social studies teacher, had turned in a lesson plan in the district's required format, including language objectives and connections to students' backgrounds. During the required observation of this lesson in Mr. Carhart's social studies class, Dr. Johnson listened to groups of students present very similar speeches about the causes of the Civil War. Dr. Johnson noticed that there seemed to be a lot of down time in the class during which students in the audience were off task and not paying attention. In addition, the English language learners (ELLs) in the class were sitting in a group together and did not seem to be actively listening at all. Dr. Johnson was interested in hearing Mr. Carhart's purpose for this task and what he thought about the behavior of his students during it.

Background

Having students present to the class is a technique that is commonly used in schools. In the chapter-opening scenario, however, the principal, Dr. Johnson, has some justifiable concerns. If students were not spending time on task, and the ELLs were not engaged at all, chances are that they were not learning as much as they could.

The amount of time that students spend on task is clearly related to the amount of engagement that they feel (Christenson, Reschly, & Wylie, 2013). Creating language objectives to help students access and understand goals and making connections in the lesson's introduction to help initiate engagement are important steps in helping students engage. However, the design of learning tasks must also emphasize access and engagement.

STOP AND THINK

Before reading the rest of Chapter 6, think about how you might change the task that Mr. Carhart's students are involved in so that students are more engaged in the content and language and can meet lesson objectives.

Understanding Engagement and Tasks

Engagement

An engaging task does not necessarily mean one that is fun but rather one that is worth doing because it is inherently interesting or meaningful to students in some other way. Decades of studies in learning, brain research, psychology, motivation, and second language acquisition clearly show that engaged students achieve more (Bender, 2017; Bruner, 1961; Christenson, Reschly, & Wylie, 2013; Egbert & Borysenko, 2019; Meltzer & Hamman, 2004). This is particularly true for ELLs and other diverse students because engagement in tasks can mediate the effects of factors outside school that may otherwise interfere with achievement (Csikszentmihalyi, 1990; Guthrie, Shafer, & Huang, 2001). As Egbert (2007) notes;

Engagement includes student involvement and ownership. . .. An engaging task means that students spend more time on task and have deeper focus, leading to greater success. In order to engage students, teachers should understand their needs, wants, and interests as relevant to their [learning]; in other words, to comprehend their learning goals. (n.p.)

Meltzer and Hamman (2004) refer to engagement as "persistence in and absorption with reading, writing, speaking, listening, and thinking even when there are other choices available" (p.10). They propose three strategies, supported throughout the literature on engagement, for engaging students in tasks that integrate content and language:

1. *Making connections to students'* lives by creating opportunities for authentic interactions with people, objects, and experiences that initiate student interest. In other words, tasks should be authentic and relevant for learners.
2. *Having students interact* with each other and with language. Tasks should be cooperative and/or collaborative in both focusing on language and using language for authentic purposes.
3. *Creating responsive classrooms*, or considering students' needs, wants, abilities, and interests.

In other words, tasks should be differentiated, challenging, and scaffolded (Egbert, 2007). Clearly, understanding students' backgrounds and interests, as suggested in Chapter 3, is central to student engagement.

Elements of Tasks

An understanding of tasks is also crucial to creating engaging ones. Tasks can be divided into two overlapping components, process and product. Task **process** is what the students do and how they do it during the task. Process can include whether students work in groups, what kind of language they use, and what tools they employ in doing a task. Task **product** can be seen as the outcome of this process or the end result of the task. Products can include written essays, plays, art pieces, dioramas, and many other (usually concrete and graded) artifacts. In the past, more emphasis was typically placed on task products, but the process is equally important because engagement and learning depend on what happens during it.

STOP AND DO

Before reading further, list the elements of task process and product that you know (in other words, think about what is involved in designing tasks).

Elements of task process and product that teachers can consider intentionally in their task design are

listed in Figure 6.1.

Elements of Task Process	Elements of Task Product
Instructional groupings Modes Task structure Time and pacing Scaffolding Resources/texts Teacher/student roles Procedural tools	Audience Mode Assessment

Figure 6.1 Elements of task process and product.

Elements o Task Process

Regardless of the content of the task, the elements of the process that require thought and careful design are the same. Each of these elements will be described next.

- *Instructional grouping.* Grouping includes how many students work together and also with whom they work. In different tasks or different parts of one task, students can work individually, in dyads or trios, in large groups, or as a whole class. In addition, students can work in either **homogeneous** or **hetergeneous** groups that should be determined by aspects such as ability level, first language, interest, and/or skill.
  Which of these groupings is part of the design of a specific task depends on what the task is meant to accomplish. It also depends on how students connect to the groupings. For example, students who come from educational backgrounds where group work was prevalent may prefer collaboration and may need help working individually, and students who are used to working individually may prefer that approach and also need to learn skills for working in groups.
  Students in diverse classrooms benefit from teachers balancing the use of many participation structures (Peregoy & Boyle, 2016): from teacher-directed activities to small cooperative groups, to solo work. Students also profit from frequent opportunities to interact with each other and with the teacher during instructional activities.
- *Modes.* In addition to the basic *modes*Language modes include listening, speaking, reading, writing, viewing, and representing. Multiple modes should be integrated in all tasks, unless the task is specifically designed to focus on one mode. of reading, writing, listening, and speaking, teachers and students can use graphics, video, art, music, storytelling and other modes that incorporate student backgrounds and help students access the content and language of the lesson. Students learn by interacting in all of these modes. Completing written worksheets, while useful for remediation and practice, should not be the main task of a lesson.
- *Task structure*. Tasks can be open, partially structured, or highly structured. The task structure can determine how students get information and how they express themselves during the task. For example, in a structured task, the teacher may ask students to complete individually a predetermined set of task steps using specific materials, or in a more open task, students may choose which materials they use and how they arrive at the product. Whether the structure is cooperative or competitive, open or structured, or some combination, teachers can make sure that students understand how to participate via explicit modeling or instruction of group processes and language.
- *Time and pacing*. Because they are such a diverse group, students do not get the same work done

in the same amount of time. Some students work faster, some slower; some have language or content barriers; others complete the overall requirements but do not get deep into the topic. In designing a task, teachers need to consider how much *time* different students need while also considering how to provide enough scaffolding that students can complete their tasks. Having a set of task extensions or additional tasks that students are expected to tackle when they complete the required task sooner than expected can help them spend classroom time to the best advantage.

- *Scaffolding*. Teachers can scaffoldScaffolding means providing support of the appropriate type and level of difficulty. student learning with such strategies as modeling, eliciting, probing, restating, clarifying, questioning, and praising, as appropriate. This can be done in a carefully planned way and when the teacher sees that students need help during a task. Students can be scaffolded in both content and language, particularly in the informal, intercultural, instructional, and academic language to which they have not previously been exposed. These kinds of scaffolds can also be provided by other students and paraprofessionals, class guests, carefully constructed computer programs, and the use of dictionaries and other reference works. If students are given too much scaffolding, however, they may not feel challenged and may become bored; if too little scaffolding is available, the task may seem too difficult and some students may flounder. The idea is to plan scaffolding so that there is just enough challenge to keep students engaged, regardless of their level. Understanding students' backgrounds helps in designing lessons that have the appropriate amount of scaffolding.

STOP AND DO

Think about the ways that you scaffold instruction or have had instruction scaffolded for you. Make a list of scaffolds that may work for different groups of students.

- *Resources/texts.* Lesson texts and other content and language resources must be at appropriate levels. Text sets, consisting of texts with similar content but a variety of language levels, can be assembled from different sources. Other resources should be used if they help students meet the objectives and can engage students in doing so.[foonote]*National Geographic Explorer* magazine comes in Pioneer and Pathfinder editions, both with the same cover and illustrations so that elementary school students do not know who has the easier text. The focus of both is on content and language. Newsela (newsela.com) has 6 language levels of the same news articles.[/footnote]

STOP AND DO

Search the Internet for a text set centered around a specific content topic. Find at least one reading that can be used with each of the following three student groups: improving, grade level, and above grade level in language ability and knowledge.

- *Teacher/student roles.* Who is the expert? Who gives help? Who asks questions? Who talks? Research shows that when the answer to most of these questions is the student, the more likely it is that students will be engaged and achieve (Meltzer & Hamman, 2004). Tasks should be developed with the intention that students will be active and engaged in learning rather than recipients of it. For example, instead of lecture, teachers can ask essential questions like What?, How?, and Why? (Prensky, 2007) that lead students to create, with the teacher, a process for answering them
- *Procedural tools.* Tools that can support ELLs' processes include everything from books to

pencils, to visitors, to blogging software. Teachers need to determine which tool(s) has the best fit for the task. If computers are not really necessary, they probably should not be used. Likewise, if a book cannot give the best idea of the content or language, a different tool should be chosen. This tool–task fit is important because it takes the focus off the tool and keeps it on the content and language of the lesson. In other words, tools should not get in the way of learning.

One, some, or all of the elements of the task process can be designed to be engaging based on a teacher's understanding of her students and the curriculum. In addition, by allowing *students* to make some of the design choices, teachers can differentiateDifferentiation of instruction means designing instruction based on student abilities, interests, and backgrounds. The purpose is to help all students reach the same goal but to do so in a way that works for each student. both task process and product. Differentiation, in turn, promotes greater access and engagement.See these useful texts and websites: *Differentiated Instruction* by T. Hall, 2002 (http://www.cast.org/publications/ncac/ncac_diffinstruc.html); *How to Differentiate Instruction in Mixed-Ability Classrooms* (2nd ed.), by C. Tomlinson, 2001, Alexandria, VA: ASCD; and many other useful resources from the Association for Supervision and Curriculum Development (ASCD) (www.ascd.org).

Elements of Task Product

The elements of task process are clearly instrumental in engaging students and supporting achievement. Several aspects of the task product are also important and will be discussed next.

- *Audience.* Students are typically more engaged in their products when they will be viewed by an audience other than the teacher. A letter written to a scientist or politician, a book to be read to students in other classes or be placed in the library, or a model to be entered in a competition are more likely to engage students than worksheets or writing assignments that the teacher grades and then students "file" in the nearest trash can.
- *Mode.* How can students complete their products? As in the task process, modes have an important role. Speaking, writing, drawing, acting, singing, constructing, and creating are among the many choices teachers can make. While designing what the students will produce, teachers can review the lesson objective verbs (see Figure 4.1) and create the products broadly enough that students have a chance to express themselves in ways that they can be understood. Students can also be given choices about how to represent their learning.

Assessment of both the process and the product should help students see relationships among objectives, connections, and the task, including both the process and the product. Assessment is discussed further in Chapter 7.

Pedagogical Connections

Engagement comes when task elements—of both process and product—are designed to work for students. To design effective tasks, teachers can make pedagogical connections; in other words, they should think about the educational backgrounds and interests of their students while designing tasks. Making and explaining such connections can help lead to student success. For example, Oh (2005) notes that successful learning tasks in her classroom were those in which her students were encouraged to produce products using their creativity and experiences, including creating short stories,

poems, raps, mobiles, video clips, quilts, puppet shows, and PowerPoint presentations. Murray (1999) likewise describes projects in which students chose the topic or procedure for their learning and recorded in some way how the course content connected to their daily lives. When making the connection, the teacher can tell the students, “We are working in groups today because I know that you learn best that way,” or “We will be working individually on this project so that you each get to present your own ideas, which I know you like to do.” These ideas, and the general techniques described below, are based on the teacher’s understanding of the diversity of learners within the classroom.

Techniques for Making Pedagogical Connections

In 1998, The Center for Research on Education, Diversity & Excellence recommended the pedagogical strategies in Figure 6.2, which teachers can still employ to make instructional connections to student backgrounds. Another principle is to use culturally relevant resources such as minority or first language literature, film, and artifacts.

Key Issues

1. Listen to students talk about familiar topics, such as home and community.
2. Respond to students’ talk and questions, making on-the-spot changes that relate directly to their comments.
3. Interact with students in ways that respect their speaking styles, which may be different from the teacher’s, such as paying attention to wait-time, eye contact, turn taking, and spotlighting.
4. Connect student language with literacy and content-area knowledge through speaking, listening, reading, and writing activities.
5. Encourage students to use content vocabulary to express their understanding.
6. Encourage students to use their first and second languages in instructional activities (p. 2).

Figure 6.2 Principles for connecting instruction to students’ lives.
Teachers can also promote cultural awareness, engage students, and enrich the presentation of content by integrating facts from a variety of cultures where they naturally fit into the lesson. Figure 6.3 presents examples of tasks into which teachers have integrated cultural facts.

Topic	Example
Rocket inquiry	During construction of a paper rocket and study of gravity and force, teacher integrates facts about space programs in different countries and the international space station.
What’s going on in the sky?	In a lesson about weather, with a focus on rain, the teacher notes folk beliefs about rain, including the South African rain-maker queen and other cultures’ rain dances.
Rosa Parks	During the lesson, the teacher mentions other nonviolent protesters, including Gandhi, the Dalai Lama, and others, and their contributions to the world.
Persuasion	The teacher integrates different cultural views of persuasion, demonstrating with television commercials and other forms of advertisements.
Plants	The teacher and students discuss contributions from researchers and agrarians around the world to the work of changing and improving plants.

Figure 6.3 Integrating cultural facts.
Pedagogical connections, or the design of tasks that support achievement for all learners, work with personal and academic connections to provide students with both access and reasons to engage.

STOP AND THINK

What topics do you know enough about to include cross-cultural facts? Which do you need to learn more about?

Guidelines or Task Design

In addition to the suggestions above, two additional guidelines can help teachers create effective tasks.
Guideline 1: Give students a reason to listen.
In the chapter-opening scenario, students were listening to practically the same presentation over and over. From their reactions, it is clear that they had little incentive to listen, even though the teacher has asked them to. To make this task more engaging for students, Mr. Carhart has many options. For example, he could ask the students to take notes for an upcoming test, or to list differences in the information that the groups found. Even better, he could design a jigsaw activity, asking each student group to present on a different aspect of the war, providing information to their peers that they would need to synthesize in order to complete their final product. Whether students are required to fill out a graphic organizer or ask two questions of the presenters, students always need a reason to listen to ensure that they do.
Guideline 2: Do not do what students can do.
The more students have invested in a task or lesson, the more engaged they tend to be. Teachers who give students choices and allow them more autonomy in making instructional decisions will find the students more involved in their learning. By understanding students' backgrounds, teachers can design specific roles for students in tasks and lessons that they would not have previously considered.Learner autonomy refers to the amount of responsibility that learners take or are given for their own learning, including the extent to which they make choices about task process and product. The list below presents some tasks that students can do and that teachers typically take responsibility for:

- Write test questions.
- Help their peers review.
- Lead a brainstorming session.
- Explain tasks.
- Form effective groups.
- Decorate the classroom.
- Provide feedback.
- Search for resources.
- Find cultural facts.
- Create choices for products.

STOP AND DO

With a partner, list other tasks that students can do that teachers often do not allow them to do.
Providing students with reasons to listen and letting them participate in instructional planning can facilitate student engagement and thereby their success. Figure 6.4 summarizes these guidelines.

Additional guidelines are presented throughout this book.

Guideline	Example
Give students a reason to listen.	Do not assume that students will listen because they are supposed to. Give students a task that they cannot complete unless they have listened.
Do not do what students can do.	Students are more likely to engage in tasks in which they have an important role. Think about what students can do through each step in the lesson design process.

Chapter 6.4 Guidelines for designing engaging tasks.

STOP AND THINK

After reading the chapter, what advice would you give to the principal and teacher in the chapter-opening scenario?

Conclusion

The careful design of task processes and products can result in student engagement, particularly when the backgrounds and needs of all students are considered. Instructional connections, the integration of cultural knowledge, and a focus on student autonomy contribute to achievement for all students. The measurement of lessons and student process and outcomes is the subject of Chapter 7.

Extensions

For Reflection

1. *Task process*. Think about times that you have given students worksheets or been given worksheets by a teacher. How might students be involved in the information they must learn in a more active way?
2. *Task product*. What's the most interesting product you have created? What made it engaging to you?

For Action

1. *Organizing task design.* Use the elements chart in Figure 6.1 to make a checklist of elements you want to remember to include in your lessons.
2. *Standards and culture*. Look at the standards for your content area and/or grade level. Find cultural facts that you could integrate into lessons on the topics that the standards require.

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7

Chapter 7: Assessing Tasks, Students, and Lessons

Key Issues

1. Teachers can assess their lessons before, during, and after their implementation.
2. Teachers can assess student progress toward both content and language objectives and demonstrations of knowledge in both areas in student products.
3. Assessments should be integrated into the lesson and focus on students' ways of knowing.

As you read the chapter-opening scenario, think about the issues that it raises about assessment.

Li Lee had been in Ms. Hamilton's class for 4 months. The second-grader was responding to the language objectives that Ms. Hamilton included in each lesson and appeared to be learning English quickly. Li also really enjoyed the hands-on science lessons in class, particulary when Ms. Hamilton could help Li make connections to her former life in Korea. Ms. Hamilton was perplexed, however, at Li's science test scores: Li consistently scored at the lower end of the class on the short, multiple-choice exams, but her performance in class indicated that she should be doing much better. Ms. Hamilton wondered if Li needed more time with the ELL teacher or whether she might have some kind of disability

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Background

Assessment is an important component in both lesson design and implementation. It can be used to evaluate how the lesson meets guidelines for good pedagogy *and* how students react to the lesson. Many outstanding resources for teachers describe all aspects and types of assessment; this chapter focuses on a specific subset of principles that underlie the development and integration of effective assessment for diverse learners.For a great assessment resource, download O'Malley & Pierce's *Assessment for English Language Learners* from https://www.academia.edu/36896224/Authentic_Assessment_for_English_Language_Learners_Amazing_English

STOP AND THINK

Before reading Chapter 7, think about how you might discover why Li's science test scores are so low.

Understanding Assessment

Some authors suggest that assessments be created by first identifying the desired results (learning targets), then deciding what evidence would be effective in measuring those results. In their view, the

design of tasks and other parts of the instruction should then be built with the assessments in mind. Whether teachers use this backward design strategy (Bowen, 2017) or a linear, beginning-to-end design, the principles that guide the development of assessments do not change. Overall guidelines for assessing student learning include those in Figure 7.1.

Teachers usually cannot do much to meet the guidelines shown in Figure 7.1 when they are implementing major graduation or other standardized tests because the use of such assessments is usually closely prescribed. However, teachers can certainly consider the guidelines when constructing and using classroom-based assessments or those that are developed by the teacher for her classroom. Whether the assessment is of the lesson or task, the process or product, the more closely the assessment fits these guidelines, the more useful it will be in understanding students.Testwiseness is the understanding of how to take tests well. Students can be weak on understanding content, but if they are testwise, they can figure out ways to use the test structure to pass.

Guideline	**Explanation**
Directly related to objectives	Measures progress toward and attainment of the lesson objectives.
Authentic and/or meaningful to the students	Provides useful and accurate feedback. Helps guide students and instruction. Avoids evaluating students based only on testwiseness.
Occurs in multiple contexts	Allows students to show what they know in different ways during and after the task or lesson.
Ongoing	Used at various times during the task or lesson.
Integrative	Assesses both language and content.
Balances depth and breadth	Combines alternative assessments and standardized assessments.

Figure 7.1 General guidelines for assessment. *Source:* Adapted from Chao (2007).

It is easy to get confused by all the jargon surrounding assessment. The difference between assessment and evaluation is one crucial point that is often misunderstood. **Assessment** refers to the general process of gathering data about something or someone, while **evaluation** refers to a final judgment (i.e., assigning a grade or a rank). In other words, not all assessment is evaluation. Teachers *can* use assessments to make an evaluation, or they can use the data they gather for goals such as changing instruction, supporting students, and reviewing real achievements with students. Most teachers perform evaluations on a regular basis, but evaluation is certainly not the only purpose for assessment.

Purposes of Assessment

Assessment has many purposes: some are administrative or programmatic, others pertain mainly to the classroom teacher. Types of assessments that serve administrative or programmatic purposes include placement tests, standardized exit tests, program evaluations, and graduation tests. These assessments are useful to a variety of stakeholders; however, they do not provide direct lesson information to teachers but rather are measurements of accountability (evaluations).

Classroom assessments, on the other hand, include reviews of lesson design, student progress, and student products. Some are for evaluation purposes; others serve to monitor student progress and thus help learners move ahead, develop an awareness of their abilities and progress, and figure out what goals they should aim for. **Traditional classroom assessments,** or those that are typically used for

evaluation purposes, include quizzes, tests, and structured papers. These assessments are the same for each student and typically require students to choose an answer. Traditional assessments generally provide a score that designates how students have mastered individual (discrete) content or language items. **Alternative assessments** are alternatives to traditional assessments and consist of any open-ended method that uncovers what students know and can do as students create an answer. Alternative assessments include verbal reporting, observation, oral interviews, demonstrations, retellings, role plays, portfolios, journaling, and many other activities. Some of these assessments are described in Figure 7.2. Alternative assessments are used to design or redesign instuction, showing student growth between assessments. Traditional assessments are often a required part of the curriculum, but teachers can also add a variety of alternative assessments in order to capture the varied and complex learning that takes place in classrooms.For a variety of great information and links, see Kathy Shrock's Guide to Everything —Assessment and Rubrics, at https://www.schrockguide.net/assessment-and-rubrics.html. Figure 7.3 contrasts traditional and alternative assessments.

Type	**Explanation**
Observation	Teachers can make informal observations of students during tasks or use a more formal checklist to look for specific items.
Oral or written interviews	Teachers can interview students individually or in groups on any aspect of the task or theme.
Demonstrations	The use of props (realia) can help students remember what they want to say and to follow a structured plan for expressing themselves.
Oral or written retellings	After a reading, the students retell what they understood. Teachers can understand how students comprehend, e.g., whether they focus on details or main ideas.
Role plays	For students who do not have a lot of productive language or who feel comfortable with drama, acting out understandings can help them show what they know.
Portfolios	Teachers help students indicate what they know by assembling and explaining a variety of their work.
Journaling	Dialogue journals, double-entry reading journals, math journals, and even group journals can help students express their understandings without fear of being evaluated.

Figure 7.2 Alternative assessments.

	Traditional Assessments	**Alternative Assessments**
Overall purpose	Evaluate knowledge of discrete items.	Review process and product; gather a more holistic understanding of student knowledge and abilities.
Audience	Parents, administrators, government stakeholders.	Parents, teachers, students.
Examples of methods	Multiple-choice and true-false tests, structured essays, discrete-item quizzes.	Verbal reporting, observation, oral interviews, demonstrations, retellings, role plays, portfolios and journaling.

General use of results	Document aspects of student learning; screen and/or diagnose, place, and exit students; determine graduates.	Improve instruction, provide student examples and progress reports to parents, help students understand their strengths and weaknesses.

Figure 7.3 Traditional and alternative assessments.

STOP AND DO

Before reading further, list the assessments that you have used, experienced, or read about. Note what and who they can be used to assess.

Assessing Student Process and Product

Adapting Traditional Classroom Assessments

Traditional assessments do have disadvantages; most problematic is the idea that all students should be measured in the same exact way. However, they are often efficient, simple, and useful for getting a general overview of class performance. Because they are so predominant (and often required) in classrooms, teachers can consider adapting traditional assessments where possible to work more like alternative assessments. For example, **hybrid** test or quiz questions include features of both traditional (e.g., multiple-choice and true-false) and alternative (open-ended, student-centered) assessments. Hybrid multiple-choice and true-false questions can include a box in which students can explain their answers, providing teachers with information about both the effectiveness of the question and the students' answering process. This is particularly useful with diverse learners, who may understand the questions or answers in a variety of ways. Examples of hybrid questions are shown in Figure 7.4.

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1. The Milky Way galaxy is shaped like a
2. doughnut.
3. pretzel.
4. ball.
5. spiral.

Why did you choose this answer?

2. T F In *Pride and Prejudice*, Jane Austen is making fun of the food of her era.
   If you chose "False," make the statement true.

Figure 7.4 Examples of hybrid test questions
Alternatively, teachers can ask students to rate the questions and/or the test, indicating what they thought was fair or not fair, clear or unclear, important or unimportant. Even a review with students at the end of a commercially produced, standardized classroom test can help teachers and students understand what their next goals should be.

STOP AND THINK

What other ways can you construct hybrid assessments from traditional assessments?

Student Roles in Alternative Assessments

The Chapter 6 guideline “Do not do what students can do” also applies to designing assessments. Students can and should be involved in the creation and review of classroom assessments. This involvement helps them to understand the objectives, empowers them by engaging them in their own evaluation, and provides clear direction for the language and content that they need to access during the lesson. The process of working with the teacher on assessment can also facilitate the building of classroom trust and understanding. Students can participate by writing test questions, providing individual or group assessment choices, developing instructions and **rubricsA rubric is a scoring tool for alternative assessments. It contains criteria, developed by teachers and/or students, that are linked to the content and language learning objectives. Rubrics can be used by students to self-assess or by other members of the classroom community to comment on student process and product.** for projects that express relevant outcomes, and even scoring and providing feedback for other students.Understand, create, and find free rubrics at rubistar.4teachers.com, teach-nology.com, and rubrician.com Teachers can use the student assessment creation process as an assessment in itself: it can assess how students understand what they are supposed to learn and how they are to learn it.

Lesson Examples

Chapter 11 provides complete lessons with assessments integrated into them. For the purposes of this chapter, Figure 7.5 shows the relationships in three lessons among the essential lesson components described in this text. Note how the lesson objectives are explicitly related to the connections that students are asked to make, and that they also determine the tasks and assessments. Some of the lessons choose less formal (ungraded) assessments, which are quite appropriate for initial lessons in a unit. Other lessons include assignments that will be graded. All of them use a variety of assessments and follow some of the guidelines presented previously in Figure 7.1. Assessments can be preplanned into the lesson, as in Figure 7.5, but there should always be room to add additional assessments if the teacher or students see a need to collect further information.

Context	Objectives SWBAT:	Connections	Tasks	Assessments
Third-grade science: plants	• Identify what plants need to stay alive. • Define and use plant vocabulary. • Recognize good discussion skills. • Write complete sentences.	• What are some things that you need every day to stay alive? • We’ll study what living organisms need to stay alive. • What’s an organism? What is a plant?	• Vocabulary word wall. • Review how to participate in a classroom discussion. • Brainstorm. • Complete diagrams with vocabulary words. • Journal according to model.	• Observation of discussion. • Class rating of discussion. • Observation of vocabulary use during tasks. • Final product completion and accuracy. • Journaling to check complete sentence use, questions, and interests.

Eighth-grade English: persuasion	• Identify persuasive techniques. • Organize thoughts to be persuasive. • Use adjectives to illustrate an idea.	• How many of you have seen an ad that made you want something? • Review the meaning of opinion and other vocabulary words.	• Discuss persuasive techniques and the role that adjectives play. • Add adjectives to word wall. • Analyze ads and complete a worksheet on techniques, pointing out adjectives.	• Observation during discussion • Worksheet review • Matching/fill-in-the-blanks test on identifying techniques.
Fourth-grade social studies: wood	• List common products that come from trees. • Explain how this natural resource can be renewed. • Write complete sentences.	• What products do you use that come from trees? • "We studied about tree rings and how trees clean the air. Now we will see . . . ."	• Review and practice how to write complete sentences using tree products information. • Ogranize a scavenger hunt for wood products. • Discuss the treasure hunt.	• Observe during brainstorm to see what students know. • Observe/discuss with groups of students during the treasure hunt. • Short written quiz that students answer with complete sentences.

Figure 7.5 The relationships among lesson components.

STOP AND DO

Review the assessment plans in Figure 7.5. How do they follow the guidelines presented in this and other chapters? Suggest adaptations for any issues that you see.

Homework

Another commonly used form of practice and assessment is homework. Homework often consists of worksheets or reading assignments. For ELLs and other diverse students, particulary if they do not have help in English at home, these tasks are not very effective. More effective might be activities and assessments that incorporate the characteristics of engaging tasks noted in Chapter 6. Interactive homework (VanVoorhis, 2001; Epstein & VanVoorhis, 2001; Epstein, Simon, & Salinas, 1997) is one type of homework that can be effective for all learners.

Interactive homework assignments are "homework assignments that require students to talk to someone at home about something interesting that they are learning in class" (Epstein et al., 2002, n.p.). Parents (or other guardians) have a small but essential role in interactive homework tasks. One of the bases for interactive homework is the idea that family involvement in a child's schooling can result in higher achievement (Egbert & Salsbury, 2009). Schools can also benefit from the knowledge brought to school by parents and other family members, particularly those of diverse backgrounds (Egbert & Salsbury, 2009). Interactive homework includes the following features:

- Teachers guide involvement and interaction.
- Parents do not "teach"—students are responsible for learning and sharing.
- Parents interact with children in new ways.
- Teachers show children that they understand the importance of family interaction.

- Tasks are engaging and challenging.
- Interactive homework is assigned two to four times per month. Family interaction is expected to be 10 to 15 minutes per task, and two to three days may be given for completion.
- Tasks are content- and language-based, relevant, interactive, and written in simple language.
- Teachers provide follow-up and student sharing (Egbert & Salsbury, 2009).

Interactive homework assignments that focus on content can be conducted in the language of choice for ELLs, making it more likely that they will understand the content and be able to complete the tasks. If this homework is being used as an assessment of student understanding, this is an important advantage over worksheets.
Examples of interactive homework tasks for the lessons in Figure 7.5 are the following:

1. Plants: Students will create interview questions about plants to ask their family member. They can record, write down, or draw the answers they receive. Questions and prompts can include “What is your favorite plant?” or “Tell me about something you’ve grown.”
2. Persuasion: The student briefly explains persuasive techniques to the family member. The student then interviews the family member, asking which technique is most persuasive to her or him and why. The student records the information and adds whether he or she feels the same way as their family member. In class, students compare answers and discuss.
3. Wood: The student and the family member hunt for wood products in their home and the student records the findings. The student interviews the family member about which wood product is most valuable to her or him and why. The student shares the findings with the class.

These tasks allow students to share their knowledge, and they allow teachers to assess whether students understood both the homework assignment and the lesson.For more useful information, see Battle-Bailey (2003) at http://www.ericdigests.org/2004-4/homework.htm

STOP AND DO

Find an interactive homework activity on the TIPS website at http://www.csos.jhu.edu/P2000/tips/index.htm. Adapt the activity to fit a class that you are teaching, have observed, or have participated in. Describe why you think this activity will work for the students you have in mind.

Additional Guidelines for Assessment

In addition to the suggestions above, two guidelines can help teachers design effective assessments during lesson development:
Guideline 1: Be Transparent
One important concept that affects assessment and supports student achievement is transparency. For example, teachers need to help students see the relationships among the lesson parts (connections, objectives, tasks, assessment). Students should also be aware of how task elements affect process and outcomes. In the same way that students should not wonder why they are addressing a topic or participating in a task, students should understand essential lesson components; this type of transparency leaves the components open for discussion and possible change, helping to keep students engaged and achieving.
Teachers can start with transparency at the beginning of the lesson by using the following suggestions:

1. Make sure that students know what the language and content objectives are and how they will be assessed. Post them on the board, refer to them, and discuss them as needed.
2. Model and explain the task, linking the task process to objectives.
3. Explain what the product expectations are and how achievement can be demonstrated in relation to the objectives.

Such transparency also allows students to play a bigger role in assessment because they understand the focus and procedures of the lesson.

Guideline 2: Reconsider Grades

Grades do not indicate actual knowledge and performance, which are the goals for many assessments. Grades for content knowledge, particularly for ELLs, can be lower than they should be because of issues with the student's language proficiency. However, teachers can score content knowledge separately from language proficiency. To score content knowledge, teachers can use the results of multiple assessments to determine how well ELLs understand key concepts, how accurate their responses are, and how well they demonstrate the processes they use to formulate responses. Language can be assessed on a scale of progress or according to a rubric based on the English language standards for the grade level and content area.

Figure 7.6 summarizes these guidelines. Additional guidelines are presented throughout this textbook.

Guideline	Example
Be transparent	Help students understand the role of assessment. Clearly list and discuss objectives and other components of the task or lesson.
Reconsider grades	Separate language and content grades to provide a more realistic picture of student achievement.

Figure 7.6 Additional guidelines for assessment.

Assessing the Lesson

Once the lesson is complete and incorporates the essential components—including assessments—teachers can evaluate their lesson design to make sure that the lesson is appropriate and relevant and meets student needs. Whether the lesson design is effective for diverse learners, particularly ELLs, can be measured in a number of ways before, during, and after the lesson (Chapman & King, 2005). These evaluations can be used to improve the lesson. Suggestions include the following:

1. Before
2. Use a component checklist based on ideas in the chapters. Teachers can create their own checklists with the components (objectives, connections, engaging tasks, assessment) and relevant guidelines, or they can use parts of the "Preparation" and "Building Background" sections of the Sheltered Instruction Observation Protocol (SIOP) (Echevarria, Vogt, & Short, 2016). An example of a component checklist is provided in Figure 7.7 (reproducible copies of this figure can be found in Appendix C and Appendix D).
3. If something is missing or does not meet the guidelines, adjustments can be made to the lesson before it is implemented.
4. During
5. Teachers can use observation and discussion with students to determine whether the lesson is going as planned and whether that plan is appropriate for the students.

6. If there are problems with the lesson, teachers and students can make just-in-time adjustments, keeping the objectives, connections, and relevant processes in mind.
7. After
8. Teachers can review the lesson, jotting down observations of individual students or the whole class. They can note when time on tasks and engagement were or were not obvious and where it seemed students needed more help in accessing the language and/or content. Teachers can also observe to what extent the objectives were met and create ideas for revising the lesson.
9. Teachers can have others review the lesson, including asking students how it went, what the most effective parts of the lesson were, and how the lesson could be improved to better suit their needs.

This information can be incorporated into the next iteration of the lesson.
Assessment of the lesson is an important part of effective lesson design and provides a firm foundation for ongoing lesson design.

✓	Component
	Language objectives 1. Are tied to standards. 2. Are tied to content objectives. 3. Are based on student needs. 4. Are measurable. 5. Are presented to students.
	Connections • Are based on student interests, needs, backgrounds, abilities. • Tie current topic and tasks to past lessons. • Tie current topic to students' personal lives. • Tie lesson tasks to students' personal lives. • Are assessed for relevancy and accuracy with students.
	Tasks • Address both content and language objectives. • Are engaging, authentic, relevant, multimodal, explicit, and implicit. • Break language down as necessary. • Are culturally responsive. • Are learner-centered and/or -produced. • Focus on process and product elements. • Provide students with reasons to listen.
	Assessment • Is ongoing. • Is authentic. • Uses multiple measures. • Provides practice and review. • Is transparent to all participants. • Homework is relevant, engaging, and interactive.

Figure 7.7 Example of a lesson-component checklist.

STOP AND THINK

After reading Chapter 7, what advice would you give to the teacher in the chapter-opening scenario about Li's low science test scores?

Conclusion

Chapter 7 presented principles and guidelines for the measurement of both lessons and student processes and outcomes. Teachers can use a large array of assessments for assessing student progress toward both content and language objectives. Most important for the assessment of diverse learners is to focus on students' ways of knowing, providing them with opportunities to express their understandings and how they came to those understandings. In turn, teachers can use this information to design effective lessons.

Extensions

For Reflection

1. *Reviewing tests.* Find examples of standardized tests that your current or future students may take. Think about how you might help ELLs and other diverse students be successful on these tests.
2. *Use your personal experience.* Think about your teacher education classes. Did you have an opportunity to show what you knew? Did you ever feel that you were evaluated unfairly? Why? What can you apply from this experience to your own teaching?

For Action

1. *Justify your grading*. Write a letter to your principal explaining why you are including a grade report for each student that has separate grades for language and content and what these grades mean.
2. *Meet the guidelines*. Choose an assessment type (for example, oral retelling or a portfolio) from a lesson or book. Describe how this assessment contributes to a lesson meeting the general guidelines for assessment listed in Figure 7.1.

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III

Part Three: Designing Lessons for Academic Success

How to Make your Classroom Fun

How many times do you find more than 50% of your students . . . asleep during your class? How many students say: “That class is really boring”? Don’t you wish it could be different? Well, here are some ways to make your classroom fun.

- The first step you have to take is to give more freedom to your students, at the beginning it could be a little bit hard, but with some time it will be easier. Trust them and trust what they say, if you trust them, they will trust you.
- Second, have stuff done at school, give all of your work at class, try to fit everything on your schedule, to get done as quickly as you can, and do not send work to be done at home. No one likes to go home after school and still have stuff to do.
- Third, show videos and movies; the majority of students learn better and [more easily] when they see and hear than when they hear the voice of the same person only. There are a lot of educational videos and movies that . . . will help you.
- Last, but not least, have some time in class to talk about other stuff, such as things that happen during the day, news, music, movies. Your students will enjoy doing that and everyone else, including you, will learn something new every day.
- If you follow all of [these] steps, you are going to see the change, for good, of your students.

STOP AND THINK

How do these arguments from an ELL fit with what you’ve read in this and other books and learned in other ways about teaching? What does that say about tapping students as co-facilitators of classroom instruction?

8

Chapter 8: Unlocking the Language of Science

Key Issues

1. Science texts, materials, and processes may present many challenges to English language learners.
2. The implementation of the nine science and engineering practices provides an ideal setting for learning language and content simultaneously.
3. The specialized language of science is filled with technical terms and features needed to describe the natural and physical world.
4. Unlike language arts and history, science texts have few stories or narratives. The text structure is dense and hierarchical (topic, subtopics, details).
5. A key component in learning to "talk science" is to analyze Greek and Latin roots as well as the prefixes and suffixes that permeate scientific language.

As you read the scenario below, think about how you would proceed if you were the teacher.

Scenario
Rita Harrington was accustomed to working with English learners in her sixth-grade geology classroom. After all, she had been teaching for 12 years in a large, multilingual suburban school district. This school year, however, marked her first time teaching a newcomer student from Afghanistan. She admitted to herself that she was a bit nervous at the thought of the crucial role she would play in the development and expansion of Yasir's understanding and capabilities in geology—especially because she didn't speak a word of Dari Persian!

STOP AND THINK

Before reading Chapter 8, what advice would you give Rita Harrington regarding teaching science to ELLs?

Science Education: A Focus on Language

Learning the language of science is a major part (if not the major part) of science education. Every science lesson is a language lesson (Wellington & Osborne, 2001, p. 2).

As these authors note, language and science content are inextricably entwined, and this is a challenge for ELLs. There are many other potential challenges for ELLS in the science classroom. These may include:

- Students may be familiar with lectures and rote memorization of concepts but unfamiliar with hands-on, experiential approaches.

- Students may not be familiar with science labs or equipment.
- Content in class is often covered very fast.
- Directions are usually multistep and complex.
- Making guesses and drawing conclusions may not be part of students' prior science experiences.
- The language of science (vocabulary, language functions, sentence and discourse structures) is specific and vast.
- Sentence structure in science texts is complex, and the use of the passive voice is pervasive.
- Many concepts are discussed on each page of science textbooks.
- Working with a partner or in groups may be a novel way to learn.
- Assessments do not always match classroom or lab activities.
- Students familiar only with the metric system will not know ounces, pounds, tons, pints, quarts, gallons, inches, feet, yards, miles, and the Fahrenheit scale.
- Some ELLs may have strongly held religious beliefs that may be a source of conflict with the science content.

The science classroom is an ideal setting for ELLs to learn both language and content, as students engage in scientific and engineering practices (e.g., asking questions, creating models, analyzing data). Unlike traditional science teaching, which often consisted of long lectures, rigid, step-by-step experiments, and a focus on rote learning of selected science concepts, the *Next Generation Science Standards* (NGSS https://www.nextgenscience.org), based on the National Research Council (NRC, 2012) document, *A framework for K-12 science education: Practices, crosscutting concepts, and core ideas*, provides English learners with more equitable science and language learning opportunities. The new vision for science teaching and learning established in the Framework for K-12 Science Education (NRC, 2012) and set forth by the NGSS identify science, engineering practices, and content that all students at the K-12 level should master to be prepared for college and careers. The NGSS describe science learning as three-dimensional, involving: (1) science and engineering practices, (2) crosscutting concepts, and (3) core ideas in each science discipline. The central content of the Framework is a detailed explanation of what is intended in each dimension, how the three dimensions should be integrated in curriculum and instruction, and how these dimensions progress in sophistication across K-12. Important to highlight is the language-dependent nature of the eight science and engineering practices, listed below:

1. Asking questions (for science) and defining problems (for engineering);
2. Developing and using models;
3. Planning and carrying out investigations;
4. Analyzing and interpreting data;
5. Using mathematics and computational thinking;
6. Constructing explanations (for science) and developing designs (for engineering);
7. Engaging in argument from evidence; and
8. Obtaining, evaluating and communicating information.

Clearly, most of these practices are language intensive and demand a focus on academic language. All students, including ELLs, can be successful in the science classroom when educators are aware of the language demands posed by the NGSS and make deliberate efforts to address those language demands and afford learning opportunities as students engage in science and engineering practices.

STOP AND DO

NGSS For All Students*: Read Appendix D of the NGSS (https://www.nextgenscience.org/appendix-d-case-studies), where readers can find seven case studies that illustrate research-based classrooms strategies that educators can use to make the standards accessible to all students, including students with disabilities, gifted and talented students, girls, and English language learners among others.*

How do the NGSS Define and Shape Academic Language Use?

Engagement in any of the eight practices involves both scientific sense-making and language use (Lee, Quinn, & Valdés, 2013), especially practices # 1, 4, 6, 7 and 8. For example, let's examine the first practice, asking questions. The NGSS stress that asking questions is critical to developing expertise in science. A major goal of the NGSS is for students to learn how to generate questions "about the texts they read, the features of the phenomena they observe, and the conclusions they draw from their models or scientific investigations" (NRC Framework, 2012, p. 56). However, earlier research indicates that teacher talk dominates classroom talk and teacher questions, particularly those that ask for recall of factual information, are the norm in most classrooms (Cazden, 2001). Thus, many students are not the ones asking the questions but, most often, answering recall and low-level questions (Ernst-Slavit & Pratt, 2017). Teachers implementing this set of science and engineering practices need an understanding of the practices themselves and of the specialized language needed for students to engage in those practices.

The Specialized Language of Science

Science is, in itself, a language and each different science (biology, physics, chemistry) is a separate language. Science involves the acquisition of concepts and processes, specific vocabulary, phrases, and terminology. The ability to manipulate this language and its processes will provide the necessary instruments for the mastery of the science curriculum (Carrasquillo & Rodríguez, 2005, p. 438). "Talking science" (Lemke, 1990) is essential to the process of doing science. Students cannot develop and use models, analyze and interpret data, or construct explanations without using appropriate terminology and language structures that characterize the specialized language of science. This science register is filled with technical terms and features needed to describe the natural and physical universe. It uses academic language features such as describing natural phenomena, formulating hypotheses, proposing alternate solutions, inferring processes, gathering and interpreting data, generalizing, and reporting findings. According to Zwiers (2008), the language used in science tends to:

- **Describe relationships of taxonomy, comparison, cause and effect, hypothesis, and interpretation.** Unlike language arts and history, science texts have few stories or narratives. The text structure is dense and hierarchical (topic, subtopics, details).
- **Describe procedures explicitly via the use of language functions,** such as *observe, measure, calculate, predict, graph, examine, align,* and *connect.* Language functions are used primarily in lab directions and lab reports.
- **Connect abstract ideas illustrated by various media.** Photos, diagrams, graphs, charts, math and chemistry symbols, lab experiences, and text all overlap to communicate concepts.
- **Use generalized verbs in the present tense to describe phenomena, how something occurs, and why.** These generalized verbs include words like *produce, engender, power, energize, propel*.
- **Appear to be highly objective.** First-person perspective and emotion are removed in order to attempt to imbue statements with more credibility (i.e., "just the facts, not your opinion").

- **Use many new and big words with new meanings, many of which are nominalizationsNominalization is any process by which a noun is formed from a verb or adjective, for example, *convection*, *defluoridation*, *desalination*, and *sedimentation*..** Examples of such words are *condensation, refraction, induction, resonance, reaction, radiation, fusion, erosion*, and most other *–ation* words (Zwiers, 2008, pp. 85–86).

For ELLs to achieve academic success in the science classroom, they need to learn to talk science. Conversely, participation in meaningful science and engineering practices enhances the process of learning scientific language.

The relationship between science learning and language learning is reciprocal and synergistic. Through the contextualized use of language in science inquiry, students develop and practice complex language forms and functions. Through the use of language functions such as description, explanation, and discussion in inquiry science, students enhance their conceptual understanding. This synergistic perspective is a relatively new view of curricular integration. (Stoddart, Pinal, Latzke, & Canaday, 2002, p. 667)

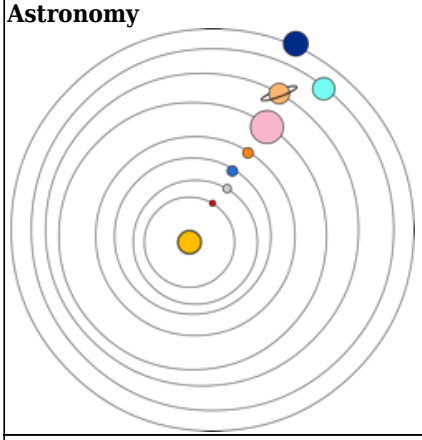
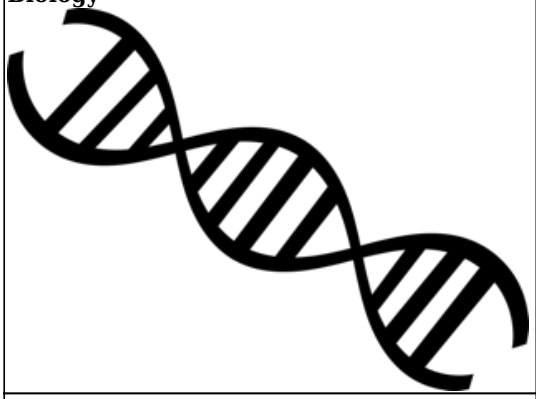
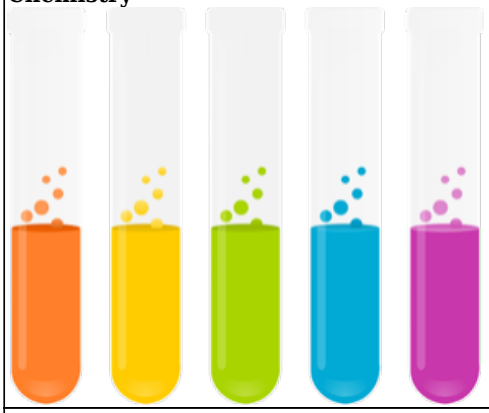
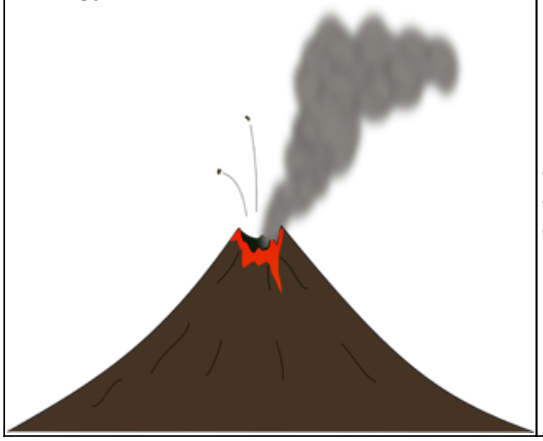
While the use of diverse language functions (i.e., what we ask students to do with language) might be beneficial for conceptual knowledge, it may generate difficulties because each language function demands a different way of using language. Language functions used in science include *classify, compare, conclude, describe, detect, explain, hypothesize, investigate, infer, measure, observe,* and *record,* among many others.

As discussed in Chapter 1, the kind of academic language needed to navigate and succeed in the science classroom includes multiple competencies, including a wide range of specific vocabulary items, grammatical constructions at the sentence level, language functions, and discourse features. Each competency is discussed below.

Word/Phrase Level

Current studies point to a strong relationship between extensive student vocabulary and academic achievement. During science instruction, ELLs must rely on a vocabulary in a language they are learning to both understand the topic of discussion and produce written explanations about the material read or about the experiment performed. Because a basic core of approximately 2,000 high-frequency words accounts for most words in academic writing (Scarcella, 2003), effective science teachers can provide explicit and deliberate vocabulary instruction. Academic vocabulary in science, as in other content areas, can be grouped into three categories: **general** (terms used across content areas), **specialized** (terms associated with science), and **technical** (terms associated with a specific topic in science). Figure 8.1 presents examples of types of vocabulary used in different scientific disciplines. There are many well-researched lists of vocabulary terms needed in science, ranging from general to technical, organized by discipline.

Scientific Discipline	General Academic Vocabulary	Specialized Academic Vocabulary	Technical Academic Vocabulary

Astronomy 	• star • planet • moon • rotate	• nebula • galaxy • nova • pulsar • telescope	• red giants • white dwarfs • supernovae • neutron star • Olbers's paradox
Biology 	• nucleus • categories • class • order	• insect • reptile • mammal • amphibian • microscope	• Animalia • Phylum Echinodermata • Holothuroidea • Dendrochirotida
Chemistry 	• nucleus • bond • solution	• atom • isotope • proton • neutron • electron • hydrometer • mass spectrometer	• periodic table of elements • BR = bromine • C = carbon • FE = iron • HG = mercury • Boyle's law
Geology 	• mineral • fault • soil	• volcano • lava • magma • eruption • earthquake • seismograph	• igneous • metamorphic • sedimentary

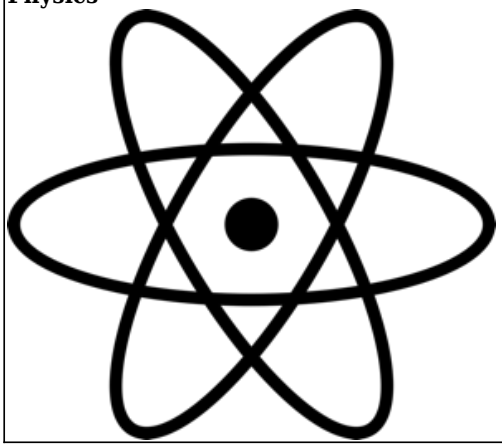
Physics 	• force • lift • nucleus • pressure • power • resistance	• barometer • fulcrum • particle • voltage	• supernova • Bohr model • infrasonic • magnetic flux

Figure 8.1. Examples of scientific vocabulary used in different disciplines. Images from https://pixabay.com

STOP AND DO

Find and review an academic vocabulary list.

- MyVocabulary.com, at https://myvocabulary.com, offers a variety of subject word lists and activities by grade levels.
- For a K-12 comprehensive list of terms and their definitions see Science Glossary at http://sci2.esa.int/glossary/.
- For high school science, check The Phrontistery, a site with 633 definitions ranging from “aeronautics” to “zymurgy.”
- To teach Biology terms, see 179 Biology Words with accompanying activities and assignments at https://www.vocabulary.com/lists/143915.
- Some word lists also have audio and translations to different languages. Students can hear how words are pronounced and find their translation as well. See, for example, Spellzone at https://www.spellzone.com/word_lists/list-2369.htm.
- The Wed has many teacher-made or district-organized lists and activities to teach science vocabulary. See, for example, “4th grade science vocabulary words for sound and light” at https://grammar.yourdictionary.com/word-lists/4th-grade-science-vocabulary-words-for-sound-and-light.html or Life science vocabulary terms at https://www.lancasterschools.org/cms/lib/NY19000266/Centricity/Domain/421/Life_Science.pdf

Since science learning involves an increasing number of new vocabulary words, teaching **morphemes** allows students to have a better understanding of families of words. A morpheme is *a meaningful part of a word that cannot be divided into smaller parts*. There are different types of morphemes, such as prefixes, suffixes, and root words. Learning vocabulary by considering how words are related to each other might help students remember their meaning by association. Figure 8.2 gives examples of science words, their morphemes, and related words.

Science Word	Morpheme (meaning)	Related Terms
Antibody	anti (against)	Antibacterial
Biopsy	bio (life)	Biochemistry

Chromatic	chromo (color)	Chromatography
Geography	graphy (writing)	Biography
Heterozygous	hetero (different)	Hetero
Polysemous	poly (many)	Polygamy

Figure 8.2 Science morphemes and related words.

Another effective way of helping students learn scientific vocabulary is by highlighting the different meanings of words. Thus, a "beam" is a ray of light in some contexts and a heavy piece of timber in others. This approach is particularly important because ELLs may not know how to select the correct definition in a dictionary. Read the continuation of the chapter-opening scenario below.

Scenario, continued

Looking over the upcoming lesson on the Earth's interior and plate tectonics theory, Rita easily recognized the need to teach vocabulary such as words with multiple meanings:

mantle

1. the top shelf above a fireplace
2. a coat or cloak
3. cerebral cortex (anatomy and physiology)
4. the part of mollusks and brachiopods that secretes material forming a shell (zoology)
5. the layer between the Earth's core and crust (geology)

crust

1. part of a pie
2. the outer part of bread
3. the top, hard layer of the Earth

core

1. the center portion of certain types of fruit (biology)
2. an item related to computer hardware
3. the layer of the Earth below the mantle

Other terms to review included *tectonic plates, inner* and *outer core, inferences*, and *layers.*

Because Rita was planning on using posters, videos, worksheets, and brown hard-boiled eggs as models for students to explore the Earth's interior, she thought about the kinds of language functions and grammatical features that Yasir and all her students would need to participate in all the activities. Next, Rita reviewed her state and the WIDA English language development standards (https://wida.wisc.edu/teach/standards/eld) for ideas of activities suitable for Yasir's beginning level. She also decided to provide some support and guidance to Yasir by pairing him with Thomas, a student with great social skills and good problem-solving talents. With all this planning, Rita felt a bit more relaxed. She was off to good start.

STOP AND THINK

Predict which language functions you can reasonably assume that Rita will ask her students to use in the upcoming geology lesson. Then, think back to a science lesson you recently taught, prepared, or observed. What language functions were present in the lesson? Were those language functions explicitly taught to the students? Were specific terms needed to "do" the science explicitly taught?

Sentence Level Features

The language of science, used to describe the physical and natural world, is characterized by a variety of grammatical features at the sentence level. Some of these features may pose challenges to ELLs who may lack familiarity with those usages. A case in point is the use of the passive voice, that is, instances where the subject who performs the action is ambiguous (e.g., "a two-step analysis *was performed*"). The use of the passive voice may obscure the meaning of a sentence because it does not clearly state who is the subject who did that action. For some ELLs, the challenge may increase if they do not have a passive voice structure in their first language (Zwiers, 2008). Additional grammatical features that characterize the language of science include the following:

- Grammatical metaphor
- Syntactic ambiguity
- Complex noun phrases
- Cause and effect
- Time order
- Compare and contrast
- Formulas and symbols (e.g., $f = ma$, $e = mc2$)

STOP AND THINK

While you might appropriately use these grammatical features, are you aware of their meaning and usage? Check them out!
Grammatical Metaphor: *Substitution of one grammatical class or structure by another, for example, replacing "she emerged" with "her emergence." Emergence deviates from the traditional pattern where processes are verbs, participants are nouns, properties are adjectives, and logical relations are conjunctions.*
Syntactic Ambiguity: *A type of linguistic ambiguity that results in sentences being interpreted in more than one way; for example: Flying planes can be dangerous. This sentence can mean either that piloting planes is dangerous or that planes that are flying are dangerous.*
Complex Noun Phrases: *Sentences made by the addition of multiple modifiers, for example, life, life science, life science industry, and life science industry technologies.*
Time Order: *A word or phrase that helps readers make the step from one sentence to the next or from one paragraph to the next. Some examples are soon, then, now, while, meanwhile, already, first, second, last.*

Discourse Level Features

Science writing is precise and filled with detail. This often makes for long and complex sentences, as the analysis of the following text suggests:
The osmoregulatory organ, which is located at the base of the third dorsal spine on the outer margin of the terminal papillae and functions by expelling excess sodium ions, activates only under hypertonic conditions. (The Writing Center, 2007, para. 12)

Several items make this sentence complex. First, the action of the sentence (*activates*) is far removed from the subject (*the osmoregulatory organ*) so that the reader has to wait a long time to get the main idea of the sentence. Second, the verbs *functions*, *activates*, and *expelling* are somewhat redundant.

STOP AND DO

Read a helpful article on academic language and the challenge of reading for learning about science from the 2010 issue of Science, found at www.sciencemag.org. The article, written by Harvard professor Catherine Snow (2010), analyzes two different excerpts found on the Web that explain the notion of torque (a topic included in many Grade 7 standards). The author analyzes the unique characteristics of each text and what makes one text more academic than the other.

Science Textbooks.

Another aspect to consider is related to science textbooks. Analyses of the characteristics of the written language of secondary texts indicate that these texts are complex and use structures that are not present in social or everyday language, at the word, sentence and discourse levels (see, for example, Fang & Schleppegrell, 2008; Gee, 2008; O'Halloron, Palincsar & Schleppegrell, 2015; Quinn, Lee and Valdés, 2013). Selected key features include:

- **Authoritative language** that suppresses human agents behind events, concepts, and discoveries (e.g., instead of reporting that "Peruvian inventor Pedro Paulet was the first person to build a liquid-propellant rocket engine in 1895" a text might just state "The first liquid-propellant rocket engine was built in 1895."). As the second example illustrates, written science texts attempt to be objective by using the passive voice and by anonymizing a person or agent. Terms such as "researchers" or "scientists" are often used instead of the person's name, their location, and affiliation.
- **Nominalizations** of verbs or adjectives into nouns to economically summarize sentences into one abstract noun phrase. For example, chemists use terms like *condensation, evaporation, sublimation*, and *deposition* instead of having to offer elaborate descriptions of these processes.
- **Long and complex noun phrases and clauses** that effectively pack complex content within shorter sentences. For example, an expression such as, "far-ranging voice-activated motion control engines" is challenging to understand.
- **Lexical density** allows the "packing" texts with more information (see the example above discussing the "osmoregulatory organ"). The ratio of content words (nouns, adjectives, verbs, and adverbs) to function words (pronouns, prepositions, auxiliary verbs, exclamations, conjunctions, and auxiliary verbs) is called *lexical density*. The more content words, the more lexical density, with many challenging terms that require decoding each word for understanding.

In general terms, scientific literacy involves more than just texts. It involves understanding very diverse genres and visual-graphical representations, as exemplified in the following list:

- Lab directions
- Research reports
- Data analysis
- Case studies
- Scientific texts
- Tables
- Posters
- Description of scientific inquiry
- Online documents
- Write-up of experiments
- Charts
- Mathematical representations

STOP AND DO

Select a discourse feature from the list about diverse genres and visual-graphical representations. Then look at the list of grammatical features presented earlier. Which grammatical features are used most often in that discourse type? Do these features vary within the same discourse type? If so, when do they vary?

Selected Strategies for Learning and Talking Science

The NGSS set higher expectations in science for all students, and teachers of ELLs will need to use effective strategies for students to learn and engage with science while learning English. Based on recommendations from the NGSS (see Appendix D, https://www.nextgenscience.org/sites/default/files/%284%29%20Case%20Study%20ELL%206-14-13.pdf), there are five areas where teachers can support science and language for English language learners: (1) literacy strategies for all students, (2) language support strategies with ELLs, (3) discourse strategies with ELLs, (4) home language support, and (5) home culture connections. While, these five areas are discussed to some degree throughout this text, in Figure 8.3 we present examples that highlight the importance of practicing and learning the language of scientific inquiry, the ubiquitous text structures of compare-and-contrast and cause-and-effect methods of inquiry, and Greek and Latin roots.

Engaging in scientific and engineering practices provides students with opportunities to develop enriched understandings of the physical, life, earth, and space sciences as well as engineering design. As students investigate phenomena, they develop the ability to ask questions, plan and carry out investigations, analyze and interpret data, construct explanations, and engage in argument from evidence (all key science and engineering practices in the NGSS). One way to assist students in engaging in the practices of science is by having students use language. A helpful strategy is to have sentence starters or stems. Sentence starters give students support in framing their thinking during instruction allowing them to discuss or write their ideas confidently. For this purpose, students and teacher can jointly create a poster with examples of language needed throughout the different phases of scientific inquiry, as depicted in Figure 8.2.

Phases of Scientific Inquiry	Sentence Starters for Each Phase
Identify a problem	• I wonder . . . . • I have noticed . . . . • I observe . . . . • I was confused by . . . .
Generate a guess or hypothesis	• I think/believe . . . will happen because . . . . • If . . . , then . . . . • It’s possible that . . . . • It will most likely . . . .
Plan an experiment or inquiry	• Let’s try . . . . • What would happen if . . . ? • I will gather . . . . • We have to be sure to . . . .

Conduct an experiment	• Do we have all of the . . . ? • What should we do next? • How did . . . react to . . . ? • How will we measure . . . ?
Collect and organize data	• Did you record/write down the . . . ? • How much . . . ? • Where do we record our findings? • Should we use a table or a graph?
Analyze and interpret data	• . . . means that . . . . • The data from . . . show . . . . • This doesn't make sense when compared to . . . . • My evidence is . . . .
Report results	• The research demonstrates that . . . . • The data show . . . . • Based on the data, it is likely that . . . . • Our research supports . . . .

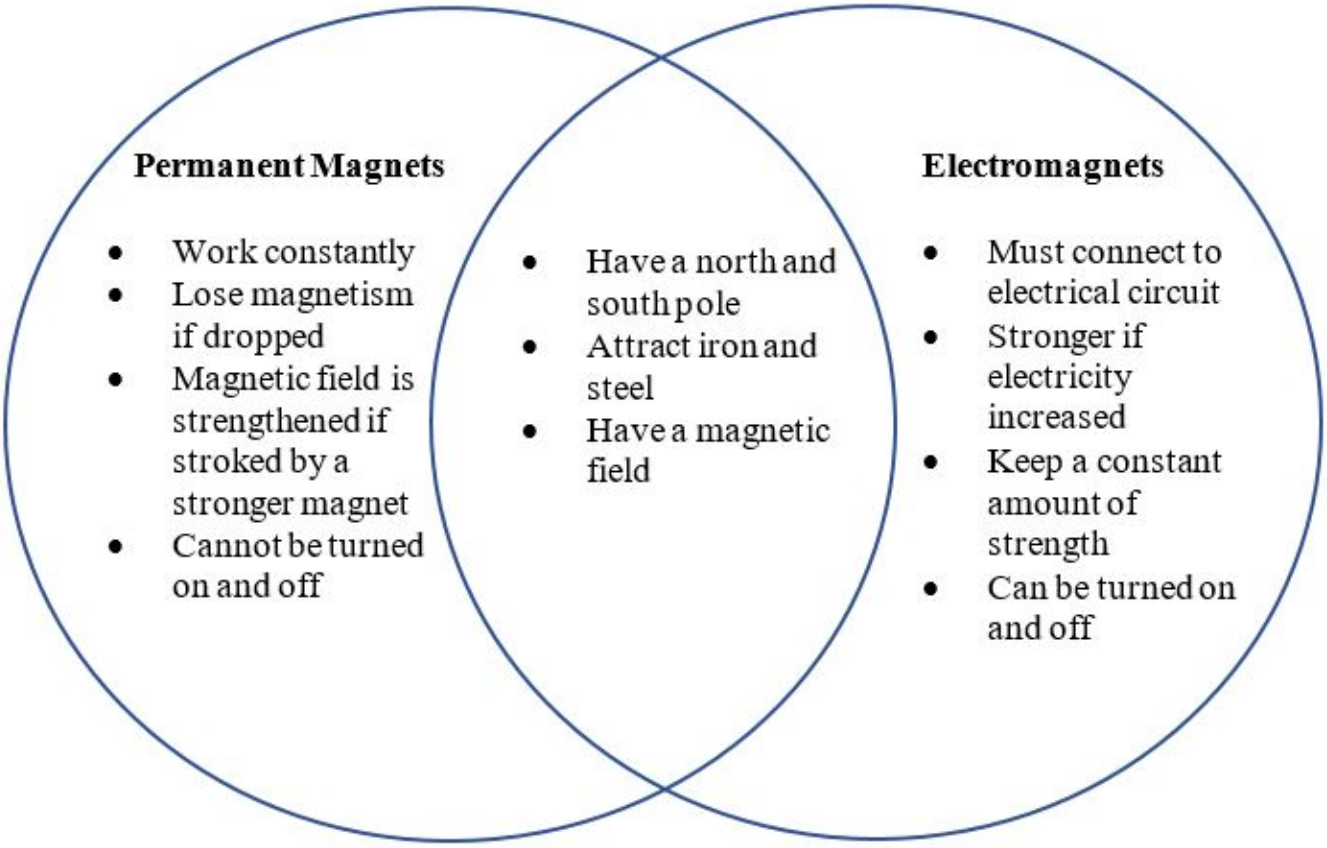
Figure 8.3 Sentence starters needed during scientific inquiry.

Teaching Students How to Compare and Contrast

Compare and contrast is a process which forces students to evaluate and synthesize how two things are alike (compare) and how they are different (contrast). There are many examples of graphic organizers to assist students in comparing and contrasting. Figure 8.4 is a list of commonly used vocabulary words when comparing and contrasting two items. Figure 8.5 is an example of a Venn diagram used to compare and contrast permanent magnets and electromagnets.

Compare	Contrast
at the same time	but
in comparison	conversely
in the same manner	however
in the same way(s)	nevertheless
like	nonetheless
likewise	on the other hand
similar	rather
still	yet

Figure 8.4 Vocabulary terms that signal compare-and-contrast structures.



STOP AND THINK

Did you know about the Crosscutting Concepts in the NGSS? *In addition to the nine science and engineering practices, the NGSS has identified seven crosscutting concepts that bridge disciplinary boundaries and provide students with an organizational framework for connecting knowledge from various disciplines. The set of crosscutting concepts is similar to those that appear in other standards documents, in which they have been called "unifying concepts" or "common themes" and includes: (1) patterns, (2) cause and effect, (3) scale, proportion, and quantity, (4) systems and system models, (5) energy and matter, (6) structure and function, and (7) stability and change. When these concepts are made explicit for all students, including ELLs, they can help students develop a coherent and scientifically-based view of the world that surrounds them.*

Teaching the Language of Cause and Effect Relationships

Cause and effect, the second crosscutting concept identified by the NGSS, indicates that events have causes, sometimes simple, sometimes multifaceted. A main activity of science is investigating and explaining causal relationships. For example, if we water our plants too often, they will die. Too much water is the cause; the death of the plants is the effect. Determining a cause-and-effect relationship is essential for explaining how things happen the way they do.
In science, this text structure is used to show order, inform, speculate, and change behavior. One way of helping students learn the cause-and-effect text structure is by teaching signal words (also called "secret code" or "nerd words" in elementary classrooms) that show cause-and-effect relationships. See the examples in Figure 8.6.

accordingly	due to	nevertheless	that is how
as a result of	for	since	therefore
because	for this reason	so	thus
consequently	if…then	so that	

Figure 8.6 Words and phrases that show cause-and-effect relationships.

Teaching Greek and Latin Roots

A key component in learning to talk science for all students involves the analysis of Greek and Latin roots because they generate the overwhelming majority of science terms. As discussed earlier in the section on **morphemes**, helping students brainstorm the origin and meaning of technical words might unveil potential connections among the meaning of the word, the student's language background, and the science register. For example, for Spanish, Italian, Portuguese, and Catalan speakers, the terms *aquatic, aquarium, aquanaut, aqueduct,* and *aquifer* might not be too difficult to learn because the prefix *aqu-* is very similar to the word they have for water (*agua* in Spanish, *acqua* in Italian, *água* in Portuguese, and *aigua* in Catalan). Remember, some ELLs might know more academic language than they think! See examples of Greek and Latin roots in Figures 8.7 and 8.8.

Greek Roots	Definition	Example of Usage
agro, agros	field, earth, soil	agrobiology, agronomy
archaeo, archaios	ancient, old, original	archaeology, archaic
bios	life, living things	biology, biopsy
chroma, chromato	color	chromophil, chromophore
chrono, chronos	time	chronograph, chronometer
demos	people	demographics, pandemic
dendron	tree	dendrochronology, rhododendron
gastro	stomach	gastroenteric, gastropod
gram	something written or drawn	electroencephalogram, telegram
hemo	blood	hemoglobin, hemophilia
hydro	water	hydrocarbon, hydrodynamics
metron	measure	metronome
neuron, neuro	sinew, string, nerve	neurology, neuromuscular
pous, pod	foot	octopus, podiatrist, pseudopodia
scopos, skopein	spy, watcher, to see	microscope, telescope
therme	heat	thermocline, thermometer
zoion	living being, animal	zooid, zoology

Figure 8.7 Greek roots.

Latin Roots	Definition of Root	Example of Usage
anima	life, soul, breath, mind	animate, inanimate
aqua	water	aquanaut, aquatic
arbor	tree	arboreal, arborvitae
avis	bird	aviation, avian

cavare, cavus	hollow	cavern, cavity
dens, dentis	tooth	dentate, denticle, dentin
generare, genus	origin, race, species, kind, to beget, produce	gender, generate
herba	grass, herb	herbal, herbarium
laborare	to work	laboratory
mare	sea	marine
mors, mortis, mori	death, to die	mortality, mortuary
mutare, mutatum	to change	molt, mutation
nox, noct	night	equinox, nocturnal
oculus	eye	binocular, oculomotor
sepsis	putrefaction, rotten, poison	septic, septicemia
sol	sun	solar, solstice
toxicare, toxicum	to smear with poison	toxemia, toxin, toxicology
spirare	to breathe	expire, inspiration, respiratory,
vivere, vita	to live, life	revive, viviparous

Figure 8.8 Latin roots.

STOP AND DO

Using the chart in Figure 8.7, define the word biometric. How does knowledge of the Greek roots in the word gastropod (a class of mollusks containing snails and slugs) change how you think about snails and slugs? What impact do you think such knowledge would have on your students?

STOP AND THINK

For additional information on Latin and Greek roots, see:

- Jessica's Common Prefixes, Suffixes, and Root Words at https://www.msu.edu/~defores1/gre/roots/gre_rts_afx2.htm;
- Root Word Dictionary at http://www.macroevolution.net/root-word-dictionary.html
- Infoplease at http://www.infoplease.com/ipa/A0907036.html

Scenario Conclusion
Rita and Yasir survived the geology lesson. In fact, Yasir learned terms and concepts about the Earth's interior and tectonic plates, and the entire class learned about the ancient Cimmerian plate and about Yasir's experience during the 2002 earthquake in northern Afghanistan. And everyone also learned how to say "egg" in Dari Persian!

Conclusion

Language is at the heart of science and engineering practices. While these practices bring with them

intensive language demands, they also bring learning opportunities for ELLs. As Quinn, Lee and Valdés (2013) indicate, a practice-oriented science classroom can be a rich language-learning as well as science-learning environment, provided teachers ensure that ELLs get the needed support to participate. As the authors note, "Indeed it is a language learning environment for all students, as the discipline itself brings patterns of discourse and terminology that are unfamiliar to most of them" (p.1). Science teachers at all grade levels need to examine the language of science and determine the kinds of language support that all students, but particularly ELLs, need to meet the content objectives successfully. Lessons can be adapted to develop vocabulary, construct background knowledge, modify texts, and build on what students already know.

Extensions

For Reflection

1. *Think back*. English learners are often able to participate in the science class sooner than in other content-area classes when science information is conveyed not only through oral or written forms but also through mathematical and visual representations such as graphs, diagrams, pictures, tables, maps, charts, and models. Reflect on the times when you taught a lesson or when you as a student participated in that kind of lesson. Were learners engaged? Did students learn the concepts and processes? Was it successful?
2. *Examining language from a different perspective.* Look at the sample of Arabic text below.

   يولد جميع الناس أحراراً متساوين في الكرامة والحقوق. وقد وهبوا عقلاً وضميراً وعليهم ان يعامل بعضهم بعضاً بروح الإخاء.

   (From Omniglot at http://www.omniglot.com/writing/arabic.htm)
   What would help you understand its meaning? How can you apply these ideas to your classroom context?

For Action

1. *Analyzing the written language demands in science textbooks.* Page through a science textbook. Look both at the content and the format. What are the language demands for your students? In other words, what do students need to know to understand the material for a topic or unit? What features of this book might be challenging for most students, particularly ELLs? What can you do to help students learn how to access science textbooks?
2. *Analyzing the oral language demands of science.* As we have discussed earlier, written and spoken language play a significant role in today's science classroom. Audio- or video-record one or two science lessons. Listen and/or view those recordings. What are you noticing in terms of the oral language used in the classroom? How are teachers and students "talking science"? Are speakers using mostly academic or social language?
3. *Comparing oral and written language use.* Compare the kinds of language used in items 1 and 2 above. How different or similar are the features of oral and written language used in this classroom? How are students' understanding of science content and language use being supported by the teacher and the materials?
4. Many scientific terms are built on Latin and Greek roots. For example, in Earth science, the three

basic types of rock are **metamorphic**, **igneous**, and **sedimentary**. These three terms mean "shape-changing," "fire," and "sit," respectively. Knowing the meaning of these roots helps students not only in the science classroom but also in other content areas. Think about Kafka's *Metamorphosis* and Ovid's *Metamorphoses*, about igniting students' imaginations, or about how many people are leading sedentary lifestyles. Look at the lists of Latin and Greek roots in Figures 8.6 and 8.7 and identify roots that originate terms used across different content areas.

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9

Chapter 9: Unlocking The Language of Mathmatics

Key Issues

1. The mathematics reform movement, with its current emphasis on communicating mathematically, may pose some challenges for English language learners (ELLs).
2. The language of mathematics uses unique symbols, technical language, and diverse representations.
3. Mathematics is not always a universal language; there are many variations across languages and cultures.
4. Mathematical language used in tasks, tests, texts, and teacher talk can have many confusing language usages.
5. Explicit instruction, speech modification, and modeling are necessary for students to learn the language of mathematics.

Read the scenario below and think about how effective the lesson might have been.

Scenario
Lewis Gandolfi was pleased with his plans for teaching a lesson on estimating with a jar of pennies. He had planned it carefully so all his third-graders would (1) actively participate in the activity, (2) feel comfortable guessing and estimating, and, (3) learn to develop various ways to arrive at the answer. As he thought about his six ELLs, he opted to mix them across groups and jotted a list of much-needed vocabulary, grammar, and discourse features to review before the lesson:

Vocabulary	Sentence Level	Discourse Level
• guess • estimate • round off numbers • range • cents • dollars • penny	• ways to express amounts • using cents and dollar signs	• word problems • graphs

The next morning, Lewis introduced the lesson by discussing the difference between a guess and an estimate and reviewing terms and phrases from the math wall. Then Lewis showed students his jar with 300 pennies and asked them to make group guesses. He took about half of the pennies out of the jar (the students decided when it was “about half”) and asked for volunteers to count aloud in piles of ten. When a brief pause occurred after the third pile was counted, Lewis promptly counted in Italian (his grandfather’s native language) and asked if someone wanted to count to ten in another language. Before he knew it, his ELLs had counted in Korean, Spanish, Russian, Vietnamese, and Urdu, followed by two native English speakers who knew French and German. Lewis was ecstatic and grateful that his improvisation had jazzed up the activity and continued with the lesson.

STOP AND THINK

With the information provided, how do you think Lewis's lesson proceeded? Why? What would you do to plan a lesson on a topic like this one?

Mathematics Education and The Common Core State Standards

There are many potential challenges for ELLs in the mathematics classroom, including:

- In many countries school mathematics curricula emphasize calculations, not communicating mathematical thinking.
- Many students have never seen or worked with manipulatives and might not take a lesson using manipulatives seriously.
- In some countries, periods are used instead of commas when representing large numbers, and commas are used instead of periods when representing decimal numbers.
- Many ELLs are familiar with the metric measurement system and are unfamiliar with measurements like feet, pints, miles, ounces, etc.
- Students must read mathematics not only from left to right, but also right to left, up and down, and diagonally (in the case of tables, diagrams, and graphs).
- Some students are used to learning mathematics by rote memorization.
- In some countries, word problems are introduced in the upper grades.
- Estimating, rounding, and geometry are first taught in the upper grades in many countries.
- There are many distinct vocabulary terms used only in mathematics.
- Mathematics textbooks are tightly packed with concepts.

The Common Core State Standards (CCSS, 2010) help to address these issues by defining grade-level expectations that lead to the preparation of students for college and careers. The CCSS for Mathematics contain both content and practice standards that define what students should understand and be able to do. These standards do not dictate curricula or teaching methodologies, and they are not intended to be new labels for old ways of teaching mathematics. The CCSS, adopted by 45 states, emphasize three aspects: 1) coherence (thinking across grades and linking to major topics), 2) rigor (pursuing conceptual understanding, procedural skill and fluency, and application), and 3) focus (narrowing the scope of content and deepening understanding). The Standards for Mathematical Practice describe ways in which students increasingly interact with content as they grow in mathematical maturity and expertise throughout their schooling (CCSS, 2010). These practices rest on important processes and proficiencies in mathematics education and work in tandem with the mathematics standards in supporting instruction. The eight Mathematical Practices, listed below, should function as essential habits of mind and action that should guide curriculum, pedagogy, and assessment for all K-12 students.

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.

4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Awareness of the language of mathematics will play a pivotal role in the implementation of each mathematical practice. Let's look at practice 6, "attend to precision." The main focus is on using precise language in speech, in written symbols, and in specifying the nature and units of quantities in numerical answers, graphs, and diagrams. The term *precision*, however, can be interpreted differently, particularly in reference to ELLs. Judit Moschkovich (2013) requests that teachers of ELLs consider when and how to focus on precision. She also reminds us that "precise claims can be expressed in imperfect language and that attending to precision at the individual word meaning level will get in the way of students' expressing their emerging mathematical ideas" (p. ix). A word of caution: *precision* in relation to the language of mathematics should not be reduced to understanding individual word meanings; teaching the top eight words for the lesson will not help students understand mathematical concepts and develop the necessary critical thinking skills (Ernst-Slavit & Slavit, 2013; Slavit & Ernst-Slavit, 2007). Rather, "attending to precision" will require educators to strategically select their level of precision. Consider the following suggestions outlined by Ernst-Slavit and Slavit (2013) for helping students be successful in the mathematics classroom as they develop precise and clear communication include:

1. becoming aware of how fancy words can both aide precision but also obscure meanings;
2. allowing students to use their native languages to enhance communication;
3. encouraging students to express complex thought processes using linguistic simplicity; and
4. helping students develop metalinguistic awareness, that is, the ability to consciously reflect on the nature of language—the language of mathematics.

For suggestions on how to promote academic language development in the implementation of the eight Standards for Mathematical Practice in the CCSS, see Gottlieb & Ernst-Slavit (2013). As will become apparent, learning the academic language needed to succeed in the mathematics classroom is indeed a complex process that involves multiple features, modes of communication, and representations.

STOP AND DO

To unpack what students should know and be able to do, read the mathematical practices at http://www.corestandards.org/Math/Practice/. Highlight what students need to know and how they might demonstrate that knowledge. Reflect on the role that language plays in how students will access and demonstrate that knowledge.

The Specialized Language of Mathematics

This focus on real-world connections may be very different from what many of our ELLs have experienced in their mathematics classes in their countries of origin, where lessons may have involved working on algorithms, manipulating mathematical expressions, and solving "recipe-type" problems (Ernst-Slavit & Slavit, 2007; Slavit & Ernst-Slavit, 2007).
Learning to communicate mathematically necessitates a variety of skills and processes to access information, to think and problem solve, and to communicate mathematical knowledge to different

audiences using multiple representations (Gottlieb & Ernst-Slavit (2014). The CCSS for Mathematics has explicit student expectations related to communicating reasoning. Students are expected to

a. communicate their reasoning through multiple representations (e.g., pictures, words, symbols, tables, graphs, pictures),
b. engage in productive oral, written, and symbolic group work with teachers and peers,
c. explain and demonstrate knowledge using emerging language, and
d. extract meaning from written mathematic texts (Moschkovich, 2013).

Clearly, this shift in mathematical practice requires students to actively participate in mathematical discourse practices.

Placing communication at the center poses some serious challenges for students who are learning English as an additional language. Students no longer have to just come up with the correct answer to a problem now students have to explain—using phrases and sentences—how they arrived at that solution. Hence, for ELLs to achieve in mathematics, they need to acquire conceptual and procedural mathematical knowledge in addition to learning to "talk math," that is, to use the specialized language of mathematics. If not,

A key question that must be asked is whether or not an assessment measures students' mathematical skills or their proficiency in English. . . . ELLs must process and interpret information in a language in which they are not fully proficient to be able to perform the mathematical tasks. (Gottlieb, 2007, p. iv)

Many say that mathematics is a language by itself. This is because mathematics uses a set of meaningful symbols to express ideas using conventional English syntax. For example,

$$2(4 - 3) + (4 + 3x) = 33$$

can be read as "two times four minus three plus four plus three times x equals thirty-three." Unlike the English language, however, where you read from left to right, in mathematics, as in the example above, you have to first complete the computations within the parentheses or brackets before you can multiply by the first number on the left.

ELLs with prior school experiences in their countries of origin may find that symbols, expressions, and methods differ from those they encounter in U.S. classrooms. These barriers become increasingly challenging as students engage in story problems that can be worded in many different ways. Although there are many similarities among number systems across the world, mathematics (particularly as taught in schools) may not be a universal language for all. See Figure 9.1 for selected examples.

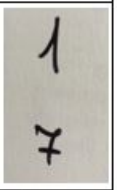
	In the United States	In other countries
Numbers and letters might be written differently	For example: 1 and 7	In some countries (e.g., Argentina, Austria Germany, Peru), 1 has serif and 7 has a stem. 
Multiples of thousands are separated by different symbols	Commas are used to separate multiples of thousands, for example: 1,285,215	In some countries (e.g., France, Spain), periods are used instead of commas to separate multiples of thousands. 1.285.215
Different methods are used for solving division	For example: 16 4 ⟌ 64	In some Spanish-speaking countries (e.g., Chile, Colombia, Peru) division problems look as follows: 64 ⟌ 4 16

Figure 9.1 Selected examples of different representations and computing methods.

ELLs also encounter difficulties when attempting to translate a mathematical concept expressed in words into a concept expressed in symbols. For example, the algebraic phrase

the number a is five less than the number b

is often translated into

$$a = 5 - b$$

when it should be

$$a = b - 5$$

The development of the *mathematics register* is a critical component of developing mathematical understanding in all students, including ELLs. In this chapter, we discuss different types of vocabulary, unique syntactical features at the sentence level, and forms of discourse used in the teaching and learning of mathematics.

Word/Phrase Level

The mathematics registerIn linguistics, a register refers to a variety of a language used in a particular context and for a particular purpose. includes a variety of words, phrases, and expressions. As discussed in Chapter 1, these words and expressions can be classified according to three categories: general academic vocabulary, specialized academic vocabulary, and technical academic vocabulary. Figure 9.2 presents definitions and examples for each category.

Vocabulary Type	Definition	Examples

General academic vocabulary	Terms used in the mathematics classroom and in other subjects	• combine • describe • consequently
Specialized academic vocabulary	Terms associated with mathematics	• quotient • least common denominator • angle
Technical academic vocabulary	Terms associated with a specific mathematics topic	• perfect numbers • quadratic equations • hypotenuse

Figure 9.2 Types of vocabulary in mathematics.

In addition, Wong-Fillmore and Snow (2000) list a series of words that pose many challenges for ELLs, such as terms that express various kinds of quantitative relationships, as well as everyday words that provide logical links in sentences typical to mathematical word problems. See Figure 9.3 for such words.

Words That Express Quantitative Relationships		**Words That Link Phrases and Sentences and Express a Logical Relationship**	
• hardly • scarcely • roughly • rarely • next • last • most	• less • longer • older • younger • least • higher • many	• since • unless • almost • probably • exactly • not quite • always • never	• if • because • unless • alike • same • different from • opposite of • whether

Figure 9.3 Problematic words for English learners commonly used in mathematics textbooks and classrooms.

Another challenging aspect for ELLs is the use of many different words to refer to the same mathematical operation. See Figure 9.4 for examples. Teaching students to identify key words in word problems and displaying them prominently will assist students in identifying the kind of operation they need to pursue.

Mathematical Operation	Examples of Different Terms with Similar Meanings
Addition	add, plus, combine, sum, total of, more than, increased by, greater than, altogether, in all
Subtraction	subtract, minus, less, less than, fewer than, decreased by, difference, lower, take away from, shorter, diminished by, are left, remain
Multiplication	multiply, time, product, as a factor, twice, double, triple, groups of
Division	divide, divided by, quotient, separated in equal groups, shared equally, over, into, how many groups
Equal	Action context: is, are, result, make, become Relational context: same as, equivalent

Figure 9.4 Different Terms that Signal the Same Operation.

Representing information in nonlinguistic ways is also an important consideration when "talking math" (Lemke, 1990). For example, the idea of *slope* can be expressed using graphs of lines, algebraic symbols and formulas, tables of values, or contextual information (e.g., "the fixed cost of an item is the slope of a cost function for that specific item"). In addition, a variety of linguistic expressions are commonly used to refer to the general concept of slope, including *rate of increase/decrease/change*, *linear change*, *degree of inclination*, and *rise over run*. Students must draw from all four of the vocabulary types (general academic vocabulary, specialized academic vocabulary, technical academic vocabulary, and nonlinguistic expression) when participating in mathematical conversations of this kind.

As all teachers of mathematics know, specific language considerations are also needed because of the precise meaning of mathematical terms; for example, *slope* is a "rate of change," but not all rates of change have a slope. Hence, all students, particularly ELLs, need to be made especially aware when their language can be imprecise and when it must be precise.

STOP AND DO

Many common English words and terms have unique meanings in mathematics. Examples include plane, face, bring down, net, and negative. Add other terms to this list. How would you help students learn the differences among their meanings?

Sentence Level Features

At the sentence level, there are language patterns and grammatical structures specific to mathematics. These include the use of logical connectors (e.g., *consequently, however*) that in regular usage signal a logical relationship between parts of a text, but in mathematics signal similarity or contradiction. The use of comparative structures (e.g., *greater than* and *less than*, *n times as much as*) and prepositions (e.g., *the temperature fell . . . to 15 degrees, by 15 degrees, or from 15 degrees; divided by*, *divided into*) pose serious difficulties for students who are trying to learn language and content simultaneously. In a 2007 article, Irujo outlined how particular sentence structures may affect meaning construction. Figure 9.5 summarizes those findings.

Sentence Structure	Examples
Passive Verbs In passive sentences, the thing receiving the action is the subject of the sentence and the thing doing the action is optionally included near the end of the sentence.	1. Which number is represented by the shaded part of the figure? (A drawing shows a circle with six parts; four are shaded) An ELL thinks: "No number is by the shaded part of the figure." 2. Which is read one million, five thousand, seventy-nine? (The question is followed by four choices, one of which is 1,005,079.) An ELL may wonder: What *which* are they talking about? Do they want to know which person is reading this number? 3. How much change should she have received? (Question asked at the end of a word problem about buying something and getting the wrong change.) An ELL may ask: Does this mean how much change she has, or how much change she gets?

***If* Clauses** *If* can have very different meanings, depending on the context.	1. ***If*** you multiply 8 times 5, the answer is 40. 2. ***If*** I take one counter out of the bag, the probability that it will be red is 1 in 2 (assuming there are 3 red counters, 2 blue counters, and 1 green counter in the bag). 3. ***If*** we had cut the pizza into 8 pieces instead of 4, the pieces would have been smaller.
Prepositions	• 6 divided ***by*** 12 is 1/2 (or 0.5). • 6 divided ***into*** 12 is 2. --- • 6 multiplied ***by*** *12* is 72 (signals multiplication) • 6 exceeds 12 ***by*** 6 (signals subtraction)
Lack of correspondence between symbols and the words they represent Students take each word literally rather than thinking through what it means in relation to others.	1. 1. In a dictation, students are asked to write the division problem *648 divided by 8*. If they write it *648 ÷ 8*, they will have no problems. If, however, thinking that 648 is a large number, they choose to write it as a long division problem, they will very likely write a problem that is read as *8 divided by 648*. 2. In an algebra problem, students read the phrase *the number* x *is 10 less than the number* y. They know they have to write an equation in order to solve the problem. So they write *x* ("the number *x*") = ("is") 10 – ("10 less than") *y* ("the number *y*"). They never realize that the resulting equation, *x* = 10 – *y*, should really be *x* = *y* – 10.
Long, complex sentences Mathematical texts often use several phrases and clauses within the same sentence.	In a problem about how many 7- to 10-minute speeches could be given in a 2-hour class, students are asked: Which of the following is the *best* estimate for the total number of student speeches that could be given in a 2-hour class? This question contains a complex noun phrase, which contains a complex prepositional phrase, which contains a relative clause construction, which contains a passive construction. (Bielenberg & Fillmore, 2004-2005)

Figure 9.5 Selected examples of complex sentence structures in mathematics.
Source: Adapted from Suzanne Irujo (2007). So just what is the academic language of mathematics? *ELL Outlook*.

Discourse Level Features

This section discusses three areas of language difficulties: density of mathematics textbooks, word problems, and teacher talk. First, mathematics texts have a denser concentration of abstract concepts when compared to other texts. Students cannot read a mathematics textbook like a newspaper or novel. The conceptual density is too great—even when compared to textbooks in other content areas. Mathematics texts are highly connected, and each word and phrase is important to the process (Zwiers, 2008). In other words, when it comes to language, mathematics textbooks are both wonderful and dreadful. Wonderful because they are concise and to the point. Dreadful because every single word, no matter how big or small, is packed with information. Skimming through mathematics books is not an option!

Another characteristic of math textbooks is that they often expand a basic problem into more sophisticated versions illustrating new concepts. For example, in one section of a mathematics book, students were asked to calculate the perimeter of a park enclosing three skateboard rinks. Then, in the next section, they were asked to calculate the perimeter for the same park, this time with a different

polygon shape, then they were to repeat the calculations using a fence with curves, and so on. This kind of threading, while helping students build on what they already know, may pose challenges to students who were not able to complete the task the first time.

Second, word or story problems, pervasive in the K-12 curriculum, can pose difficulties, such as in the following example by Ernst-Slavit (2015):

A certain construction job usually takes four workers six hours. Today one worker called in sick, so there are only three workers. How long should it take them to do the job?

Solving this problem requires awareness of the challenges in this story problem for ELLs. Let's explore some of these challenges: First, "A certain construction job" does not allow students to visualize the kind of job, which is important for helping students think through the problem. Second, the word "take" has over 100 different meanings. Third, "four workers six hours" is extremely concise and presents numbers as words. Fourth, "called in sick" is an idiomatic expression and ELLs might not be able to decipher its meaning. Fifth, "How long should it take" can be confusing since "long" here is asking for a unit of time, not a unit of length. In addition, students might understand "should it take" as an obligation, rather than what is probable.

Clearly, word problems can be confusing for ELLs at several levels—in terms of language, and in relation to cultural knowledge. Figure 9.6 illustrates select confusing aspects of the language used in word or story problems.

Confusing Aspects	**Examples**
Same pronoun is used to refer to different subjects.	*Suppose **you** and three friends buy a large pizza. **You each** pay with a $5 bill. The pizza costs $12.75. **You** will also pay $.83 tax on the pizza. How much change will **you and your** friends get?* (Houghton Mifflin's *Math Central*, 2001, p. 287)
Unclear directions: Will the friend start on the pane 1 of window 1 or on pane 3 of window 1? Will he or she then move to window 2 or continue in window 1? Is the comparison among the three friends or between the "one friend" and the "two of you"? What is a "pane"?	*There are four windows in the attic and each window has eight panes of glass. One friend cleans every third pane. Two of you clean the rest. Who cleans the least number of panes?* (Houghton Mifflin's *Math Central*, 2001, p. 241)
Use of several small words: These commonly known words (underlined) take a specialized meaning that is particular to mathematics.	*A rock is dropped from a height of 200 feet. During its fall, the rock's height h (in feet) **is given by*** • $h = -16t^2 + 200$ ***where** t is the time in seconds. Find the height **when** t = 0, 1, 2, 3, and 3.5 seconds. When does the rock hit the ground?* (McDougal Littell's *Math Concepts and Skills*, 2007, p. 623)
Shifting subject referents	*Your grandmother started **a college fund** for her grandchildren 15 years ago with an investment of $15,000 at an annual interest rate of 6½%.* *Find the balance of the account if **the account** earns simple interest.* (McDougal Littell's *Math Concepts and Skills*, 2007, p. 378)

Figure 9.6 Examples of issues with word problems.

Pointing out some of this problematic usage in books and texts and giving explicit instruction in reading and writing word problems are ways of teaching ELLs how to grapple with the unique grammatical

features of the language of mathematics. In addition, the use of warm-up activities using mathematical language can give students practice in sentence construction.

Last, a word on teacher talk. Ernst-Slavit and Mason (2011) point to the difficulties teachers may have in clarifying problematic terms and expressions in an ongoing and systematic manner. In their research, they found that even teachers who were aware of the linguistic challenges faced by ELLs and who explicitly discussed troublesome usages, such as synonyms (*change, convert*) and homophones (*two, to, too*), missed other potential sources of confusion for their students.

When teachers oversimplify their language to accommodate students' lack of proficiency in English, students may not encounter enough opportunities to develop and practice mathematical language (Irujo, 2007). The line between too much simplification and not enough is a fine one, and the need for it varies from student to student. However, with preplanning, intentional teaching, and cumulative experience, educators can become skilled at distinguishing and applying the nuances of making the language of mathematics more accessible to all students.

Teaching Strategies for Learning and Talking Mathematics

The discussion above was intended to provide information to assist educators in better understanding the language abilities and needs of their ELLs. But we still must ask, "How do mathematics teachers teach their students mathematical thinking if their students communicate minimally in English?" or "How do I reach my ELLs?" Although there are no simple answers for these questions, the truth is that, in many mathematics classrooms, teachers are using a variety of instructional strategies that have proven useful to reaching all students, and in particular those who are learning English as a second language or third language.

Below we provide selected strategies that support ELLs as they learn how to talk math using the mathematics register, how to do math, and how to think mathematically.

Use a Variety of Instructional Formats and Supports

Students learn in many different ways. Classroom activities can be structured to support many learning styles and strengths. For all students, particularly for ELLs, the use of instructional supports (e.g., discussing a graphic organizer, working with a partner, using manipulatives) increases the understanding of the topic at hand. Below is a list of suggestions:

- Design multisensory lessons (visual, auditory, tactile, kinesthetic).
- Use visuals (graphs, charts, diagrams, models) when possible.
- Point to or explicitly connect terms with a visual representation.
- Design hands-on activities.
- Use different technologies.
- Vary groupings throughout the lesson (independent work, pairs, groups, whole class).
- Use real-life problem-solving situations to teach new concepts.
- Make connections across content areas whenever possible.

STOP AND DO

Create a graph online with the help of the National Center for Education Statistics at http://nces.ed.gov/nceskids/createagraph/ to visually represent a mathematical concept.
For examples of graphic organizers in math, visit the Michigan Council of Teachers of Mathematics at https://www.mictm.org/index.php/resources/links/260-graphic-organizers

Introduce New Vocabulary in a Thoughtful and Integrated Manner

Vocabulary is best taught not as a separate activity but as part of the lesson. For example, students who memorize the definition of *cube* without solving a problem or participating in a discussion involving cubes often have a superficial understanding of this term. Manipulatives and visual aids, such as pictures, graphic organizers, charts, and bulletin boards, are good support for these conversations. Recent research indicates that vocabulary instruction must occur in authentic contexts, where students have a variety of opportunities to learn how target words interact with, garner meaning from, and support meanings of other words (Nagy & Townsend, 2012).

Identify and Highlight Key Words with Multiple Meanings

In addition to the problematic words and phrases discussed earlier, ELLs can have difficulty with words that have multiple meanings in social and academic language or in other content areas. For example, the word *table* can refer to a times table for multiplication facts or a table of values for graphing functions. *Table* may also have very different meanings and usages in nonmathematical contexts, such as a timetable in social studies, table of contents in language arts, water table in physical science, and periodic table in chemistry. Identifying and carefully planning the use of any such words that you anticipate using in a lesson can support students' efforts to follow the subsequent line of discourse.

STOP AND DO

Review the extensive list of mathematics words and their definitions at https://www.mathwords.com/a_to_z.htm. Choose one that has multiple meanings and plan how you might teach it.

Modify Speech

One important aspect of teaching ELLs includes providing comprehensible input (Krashen, 1981), that is, when teachers modify their speech to facilitate communication and enhance students' understanding. Often, however, modification is understood as meaning "simplification," and while that strategy might be helpful in the short term, it is not the only adjustment teachers can make to promote understanding. Below is a list of additional suggestions:

- Enunciate clearly and slowly without speaking louder (ELLs are not hard of hearing; they are second language learners).
- Pause between sentences or concepts.
- Use gestures and visuals to enhance meaning.
- Avoid using idioms and slang.
- Use key words frequently.
- Repeat, rephrase, restate.
- Particularly for difficult mathematical content, allow non-English-language group discussion or the help of teaching assistants.
- Focus on the content, *not* on the form, of students' responses. Respond to inappropriately phrased language by modeling the appropriate grammatical form instead of correcting.
- Be aware that additional wait-time may be needed when teaching ELLs.

The concept of **wait-time**, a phrase coined by Mary Budd Rowe (1972), refers to the time students are given to respond to a question posed by the teacher. Studies by Rowe and others (see, for example, Ernst-Slavit & Pratt, 2017) showed that, in most classrooms, students were given no more than 1.5 seconds before teachers continued talking or students provided an answer. In classrooms were teachers paused between 3 and 7 seconds after asking high-level questions, students responded more thoughtfully and their achievement increased. With adequate wait-time and other speech changes, such as simplifying the language used rather than the mathematical concepts taught, teachers can preserve

the integrity of the content while making language comprehensible.

Use Preview and Review

This technique provides a lesson introduction (which can be given to all students or only to ELLs) via a handout, an outline of the entire lesson on the board or overhead, and a list of key words. This preview provides context for the lesson, and small-group discussion can support any of these steps. After the lesson, a review of its main aspects, including both key content and language features, can be provided to further clarify or reinforce learning goals as well as key terms.

Kristie, a middle school teacher, uses the preview and review technique in all of her classes, including those with ELLs. Her use of preview is extended through the use of a "hula skirt," a piece of paper folded down the middle and cut horizontally into four or five strips on each side. The students are asked to write key terms and definitions on the left and provide a visual on the right. These terms are then used during the lesson, and the students make regular use of the "hula skirt" throughout. Kristie states: "For my ELLs, I always try to use different modalities to get them to understand the vocabulary. The hula skirt is kind of fun, and it gets them to write a definition and connect it to a visual. I tell them I am bad at *Pictionary*, you know, like stick figures and stuff, so the drawing doesn't have to be perfect. But it really connects them to the meaning of the word." Kristie also uses the "hula skirt" for a game modeled on *Jeopardy* by having one of a pair of students fold and cover the strip with the illustration and asking the other to provide either the word or definition (Ernst-Slavit & Slavit, 2007).

Search for Cognates: Validating Students' Languages and Cultures

Cognates are words related in origin and occur most often in English, Greek, Latin, and German, although Farsi and Turkish have English cognates, for example, *temperature–temperatura* (Spanish); *citizen–citoyen* (French); *mother–Mutter* (German); *inflation–enflasyon* (Turkish). False cognates, on the other hand, are terms that appear to be similar in two languages and may have similar roots but their meaning is different. Examples of false cognates in English and Spanish are *library–librería* (bookstore); *embarrassed–embarazada* (pregnant); *exit–exito* (success); *pan–pan* (bread).

Research indicates that students' home languages can play a significant role in learning complex material, including content encountered in mathematics classrooms. This is especially true when students are afforded opportunities to incorporate their home language into classroom discourse. Even teachers who do not speak ELLs' home languages can use this strategy by giving students options for accessing books, handouts, or websites in their native languages, or working with peers or teaching assistants versed in the native languages. For example, Arthur, a middle school teacher in a building with a large number of Mexican and Central American students, builds on students' knowledge of Spanish by using cognates. Arthur states, "My Spanish-speaking students understand more English than they realize. For example, they know *círculo* [circle], *lateral* [lateral; related to the side], *cuadrado* [a square or special quadrilateral], and even words like *edificio* [edifice], and *casi* [quasi; resembling something]." The use of cognates helps Arthur validate students' first languages while, at the same time, enables students to learn language and content through vocabulary that can be easily identified in its written form.

All students come with varied experiences and knowledge, which can often lead to creative ways of solving mathematical problems. Sharing such samples of student thinking and problem solving is currently at the heart of mathematics education reform. Additional suggestions for tapping students' knowledge include the following:

- Connect students' prior knowledge and experiences to new learning. Find out what students already know about a topic by making a semantic web on the board. Write the topic in the center and record students' knowledge around it.
- Integrate ELLs' cultures into lessons whenever possible. Give students opportunities to share examples from schools in their country and different ways of learning mathematics.

- Begin a unit of study by building on students' own questions about the topic.

Use Cooperative Learning and Promote Opportunities for Interaction

It is possible for students of diverse linguistic and educational backgrounds to work together on a task in pursuit of a common goal. Collaborative groups provide opportunities for students to hear and use the math register, while at the same time developing mathematical understandings. Depending on the students' language proficiencies, this works very well in groups with diverse language backgrounds because students can use English to communicate with all the members of the group. Teachers can provide visuals with key words to support students with emerging language proficiency, even in groups with a variety of home languages. For example, Martha, a seventh-grade mathematics teacher with students from Latin America, Eastern Europe, and North Africa, asked her class to count on their fingers. Maddie noticed that Chimwala began counting with her thumb, others began counting with their pinkies, and most began with their index fingers. After this realization, Martha asked all her students to share in groups how they use their fingers, or any other body parts, in the counting process. Though she did not choose to do so, Martha could have extended this discussion into exploring the various algorithms for performing arithmetic on whole numbers that students bring from their various home and school cultures.

Teach Organizational and Study Skills

Students need to have organization, study skills, and learning strategies to succeed in today's classrooms. Explicitly teaching organizational and study skills is necessary at the elementary and secondary levels. The following list of suggestions for teachers will be helpful for all students, but particularly for ELLs:

- Demonstrate how to read a mathematics textbook.
- Point out key sections and resources in the textbook.
- Teach students how to organize notebooks and binders and record homework assignments.
- Teach study and test-taking skills.
- Teach note-taking skills. For beginner English language learners, copying notes is an effective way to begin learning writing conventions.

Create an Atmosphere for Risk Taking and Making Mistakes

Finally, learning a second language, including the mathematics register, has an affective base; that is, when students are motivated, feel at ease, and view their goals as reachable, then learning is enhanced. Students need to be encouraged to ask questions and take risks; making mistakes is part of learning. If students' answers are not correct or if students are not able to follow the emerging lines of discourse, patience may be needed to ensure that student risk taking and participation will continue.

Scenario Conclusion

Lewis's lesson was a success! After the spontaneous demonstration of multilingualism in his class, Lewis asked groups to estimate the total number of pennies and recorded the information on a chart under his document camera. Students continued to work in groups to produce their own charts by ordering the numbers. Other activities for this and the following day included: (1) finding the differences between the guesses and estimates, (2) rounding the numbers to the nearest ten or hundred, (3) finding the difference between the ranges in each column, (4) expressing the guesses in different forms using cents and dollar signs, (5) generating word problems using data; and (6) discussing what you could buy with that amount.

Conclusion

Mathematics is not limited to computation; it is very much dependent on the language in which it is taught. Current mathematics standards require students to apply computational skills in a variety of real-life problem-solving situations, read and solve word problems, communicate their mathematical thinking, and collaborate with others to complete a task. These requirements demand that students learn to "talk math." Just as archaeologists search for bones and stone materials to understand past civilizations, educators must search the resource materials for challenging words, grammatical structures at the sentence and discourse levels, and processes that may hinder understanding of mathematics. Explicit and deliberate instruction of terms, concepts, and processes—in addition to the utilization of a variety of instructional supports and classroom arrangements—can enhance mathematics instruction for all students.

Extensions

For Reflection

1. *In your ELLs' shoes*. Recall a time when you were learning a second language. Now imagine you had to learn mathematics in that language. What would you want your teacher to do?
2. *Think back.* Recall your school or college days and reflect on your best and worst experiences in the mathematics classroom. What did some teachers do to foster or hinder learning? Was there an emphasis on engaging in mathematical practices? Was there explicit language instruction?

For Action

1. *Adapt a lesson.* Find a lesson or unit on the Internet that is appropriate to your grade level or area of interest. Check if this lesson or unit grows out of real-world problems, is relevant to your students, and focuses on teaching explicit language components needed to understand the lesson. If it does not have any of these features, what adaptations would you need to make?
2. *Interview a student or an adult whose first language is not English.* Find out how the student or adult learned mathematics in his or her schools. Was the emphasis on computational activities or communicating knowledge? Also, find out if, in this person's home country, he or she uses different symbols to represent various concepts.
3. *Check for more information on CCSS and Mathematics in any of the following texts:*
4. *Common Core State Standards Mathematics* at http://www.corestandards.org/Math/
5. *ELLs and Common Core in Mathematics* (2015), a video interview with Dr. Judit Moschkovich at https://vimeo.com/123889734
6. Gottlieb, M., & Ernst-Slavit, G. (2013). *Academic language in diverse classrooms: Promoting content and language learning. Mathematics Grades K-2.* Thousand Oaks, CA: Corwin.
7. Gottlieb, M., & Ernst-Slavit, G. (2013). *Academic language in diverse classrooms: Promoting content and language learning. Mathematics Grades 3-5*. Thousand Oaks, CA: Corwin.
8. Gottlieb, M., & Ernst-Slavit, G. (2013). *Academic language in diverse classrooms: Promoting content and language learning. Mathematics Grades 6-8.* Thousand Oaks, CA: Corwin.
9. *Find answers*. Check the following resources for more information about teaching math to ELLs.

10. Celedón-Pattichis, S., & Ramirez, N. G. (2012). *Beyond good teaching: Advancing mathematics education for ELLs.* Reston, VA: National Council of Teachers of Mathematics.
11. de Oliveira, L., Obenchain, K., Kenney, R., & Oliveira, A. (2019). *Teaching the content areas to English language learners in secondary schools,* Springer.
12. Ernst-Slavit, G & Slavit, D. (2013, March 18). Mathematically speaking, *Language Magazine.* https://www.languagemagazine.com/2013/03/18/6006/
13. National Academies of Sciences, Engineering, and Medicine (2018). *English learners in STEM subjects: Transforming classrooms, schools, and lives.* Washington, DC: The National Academies Press.

10

Chapter 10: Unlocking the Language of English Language Arts

Key Issues

1. English texts and tasks, with their abundance of idioms, figurative language, imagery, and symbolism, present challenges for English language learners (ELLs).
2. In our multimodal world, students must learn a variety of skills to identify, interpret, analyze, and communicate through a range of modes, media and symbols.
3. The language arts include reading, writing, listening, speaking, viewing, and visually representing.
4. Educators need to affirm and draw on the different literacy practices that students develop in and out of school.
5. Early elementary grades focus on learning to read; later the focus is on reading to learn.
6. Students benefit from receiving extensive and varied vocabulary instruction.

Read the scenario below and think about what the teacher has learned.

Scenario
It is 9:45 p.m. and Jeff Rosenfeld, a second-grade teacher, has only three more interactive journals to respond to; he takes a sip of his coffee. Last weekend had been a busy time for his students, as evidenced by their journal entries. Opening up the journal of Pierre, an ELL student from Togo, Jeff read the entry. Pierre, a native French speaker, had talked about attending church with his parents last weekend and then playing with friends he had made in his neighborhood. After writing a reply in which he modeled appropriate word order, Jeff jotted the following on a separate piece of paper:
Language Objectives for Pierre:

- Word order: (1) sentences: subject before verb; (2) questions: use of “do” or “did” with verb and placement of subject
- Tense: work on simple past tense (regular forms first: play → played; irregular forms later: go → went). Journal showed all present tense. This will be useful in social studies, too.
- Social studies: Allow Pierre to use simple past in social studies for now. As he demonstrates mastery, begin teaching present perfect and past perfect in stages.

Tomorrow, Jeff will use this information to plan the coming week’s whole-group and targeted small-group language lessons.

STOP AND THINK

Before reading the chapter, imagine three siblings from the Ukraine. During their first month in school, each student participated in the reading and discussion of one of the following books:

Ekaterina (kindergarten): The Very Hungry Caterpillar (Carle)
Misha (6th grade): Hatchet (Paulsen)
Pavel (11th grade): Beloved (Morrison)

What language and literacy skills will Ekaterina, Misha, and Pavel need in order to access, understand, and participate in classroom activities? How can teachers prepare students in the early stages of language proficiency so that they can benefit from the discussion of these and other books?

English Language Arts: Preparing Students for the Literacy Demands of Today and Tomorrow

Language and literacy development can be seen as a continuous process that starts at birth with a child's earliest experiences with language. Observations of young children show that the development of oral language and literacy are interrelated processes. As children manipulate books, pencils, and papers, they begin to assume the roles of readers and writers in their everyday play. These early experiences in constructing meaning from text are part of what is called **emergent literacy**. Later, instruction in the early grades focuses on teaching students how to decode and produce written texts. As students leave the primary grades, the emphasis shifts to comprehension of increasingly complex texts in language arts and other content areas. This change of emphasis, from learning to read to reading to learn, may present many challenges for ELLs because they are learning language and content simultaneously.
potential challenges for ELLs in the English language arts classroom include:

- English texts have an abundance of idioms, figurative language, imagery, and symbolism.
- Students may not have practice in forming, expressing, and supporting their opinions about a literary work.
- Students may not be familiar with drawing conclusions, analyzing characters, and predicting outcomes.
- Texts use a variety of regional U.S. dialects as well as Middle and Old English.
- Students may lack familiarity with text structures and features.
- English texts have large quantities of unfamiliar vocabulary, homonyms, homophones, and synonyms.
- Students need to become familiar with grammar usage and with many of the exceptions to the rules found in any language.
- ELLs may not be familiar with terminology and routines associated with the writing process: drafting, revising, editing, workshop, conference, audience, purpose, or genre.

Language arts have traditionally focused on the four language domains of *listening, speaking, reading,* and *writing,* including language conventions such as punctuation, spelling, and grammar usage. Recently, however, a broader view of literacy includes a wide range of skills and abilities related to reading, writing, listening, speaking, viewing, and performing (CCSS, 2010). In addition, ongoing innovations in technology have brought forth novel ways in how people make meaning. Thus, "literacy" also includes making meaning from different modes of communication, as depicted in Figure 10.1.

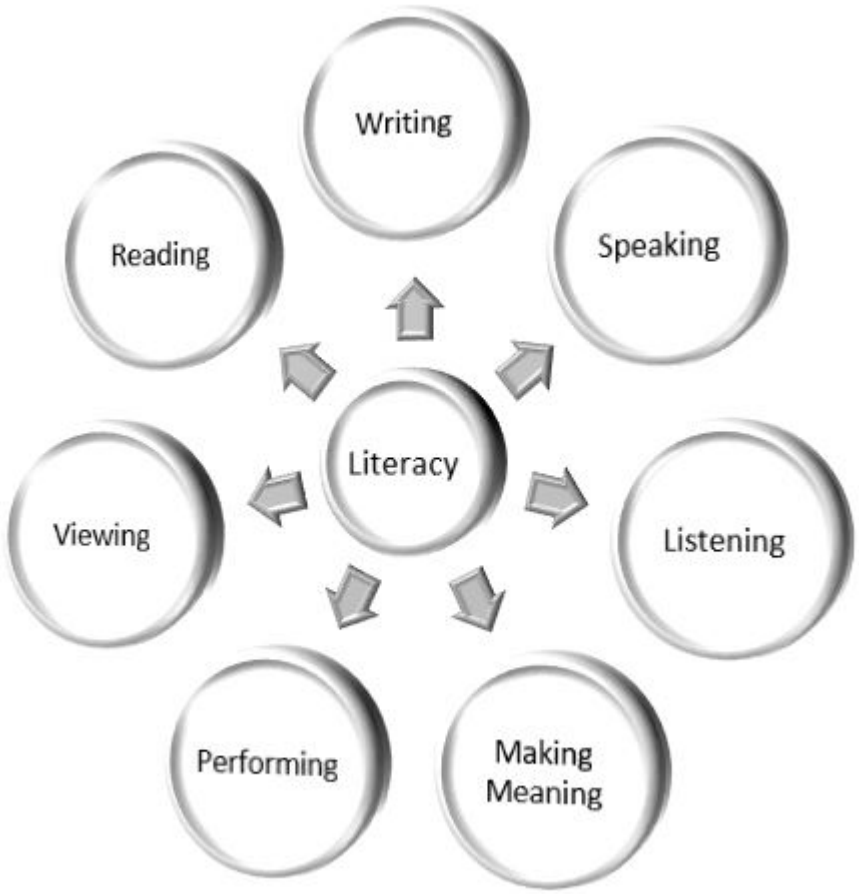


Figure 10.1 A broader view of literacy.
This broader view of literacy, also referred as "multiliteracies" or "new literacies," assumes that individuals "read" the world and make sense of information by means other than traditional reading and writing. These multiliteracies include linguistic, visual, audio, spatial, and gestural ways of meaning-making. Central to the concept of multiple literacies is the belief that individuals in a modern society need to learn how to construct knowledge from multiple sources and modes of representation.

Multiliteracies

In 1994, a group of ten educators from a variety of different nations and backgrounds met in New London to discuss literacy in regards to changes in students' lives, technology, the workplace, language, and the globalization of society (Cazden et al., 1996). The New London Group realized that a changing world coupled with ongoing innovations in technology required changes in how we think about literacy and school literacy. As a result, they coined the term "multiliteracies" to describe the "multiplicity of communications channels and media [and] the increasing salience of cultural and linguistic diversity" (Cope & Kalantzis, 2000, p. 5).
The idea of literacies as "multiple" derives from the view that "there are many forms of literacy that vary across time and communities—that literacy is a social practice, rather than a set of reading and writing skills to be acquired" (Cervetti, Damico & Pearson, 2006, p. 379).
Several national learning standards and guidelines include goals that reflect a consideration of multiliteracies, for example the *Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical* Subjects ([CCSS] 2010); National Coalition for Core Arts Standards (2014); standards from the National Council of Teachers of English/International Reading

Association (2012); and Center of Applied Special Technology's *Universal Design for Learning Guidelines* (2011).

For example, the sixth writing standard in the CCSS, "Use technology, including the internet, to produce and publish writing and to interact and collaborate with others," emphasizes the use of technology to support literacy development. Used alongside other standards, it is possible to consider how technology and writing objectives can come together to actively engage all students and prepare them to use diverse technological tools. The exploration of new technologies in a structured, supportive environment can afford students the confidence to explore new technology tools on their own, as the tools are relevant to their lives.

However, we must be aware of the dangers of the "digital native" myth. In spite of research suggesting that many students, particularly teenagers, lead "tech-saturated lives," not all our students are highly skilled in the use of new literacies or have access to technology. In other words, while some students might have plenty of access to new technologies, they might not be very skilled with online research and comprehension. In addition, in spite of the increasingly pervasive use of online textbooks by schools and districts, some students may have limited access to the Internet and technology at home.

New Literacies

The ongoing emergence of different digital technologies and new media has led to fundamental shifts in how people read, write, and communicate. Examples of new media include web-based applications for designing presentations (e.g., with Prezi, Canva, or Keynote), interactive video games (e.g., *Minecraft, Bakugan, Defenders of the Core, Terraria*), and online social platforms (e.g., Facebook, Instagram, Snapchat, Twitter). Each new technology demands new literacy skills. The Internet, for example, requires an increasing skill set related to reading information found on websites, writing email messages, and posting to blogs (Coiro & Dobler, 2007). Many adolescents spend considerable time in online social spaces and using multimedia applications on digital devices. These activities generate an expanding number of new literacies, such as creating and sharing personal videos using applications like Vine and Vimeo (Munger, 2016).

STOP AND THINK

What new literacies do you currently use? What are some of the new literacies you would like to learn how to use? What new literacies are being used in the school where you teach or hope to teach?

Multimodalities

The theory of multimodality is informed by social semiotics—the field of study related to understanding how people construct meaning from signs and symbols in ways that reflect socially- and culturally-ascribed meanings and practices (Halliday, 1978). Examples of different modes include dance, painting, photography, computer-based communications, and written language. Multimodality acknowledges that communicating an idea so that others will understand it clearly may not be possible through one single mode alone (Jewitt & Kress, 2003).

A text can be defined as multimodal when it combines two or more semiotic systems. There are five semiotics systems:

Audio	Includes aspects such as volume, pitch and rhythm of music and sound effects

Gestural	Includes aspects such as movement, speed, and stillness in facial expression and body language
Linguistic	Includes aspects such as vocabulary, generic structure, and the grammar of oral and written language
Spatial	Includes aspects such as proximity, direction, position of layout, and organization of objects in space.
Visual	Includes aspects such as color, vectors and viewpoint in still and moving images

Everyday examples of multimodal texts include:

- A webpage that combines elements such as sound effects, oral language, written language, music, and images.
- An opera performance that combines music, dancing, gestures, and oral language.
- A textbook that combines textual and visual elements arranged on individual pages organized in a systematic manner.

For students to be successful in understanding multimodal texts, they will need to be able to "read" the multiple modes comprising each text.
If English learners are to achieve and succeed in the English language arts classroom, educators need to affirm and draw on the different literacy practices that students develop in and out of school. As we prepare students to achieve academically, we must not lose sight of the need to prepare students to succeed beyond the school walls. Students today are not only exposed to printed materials and TV, they are also now part of an increasingly multisensory world incessantly vying for students' attention via movies, multimedia graphics, radio, music, the Internet, text messaging, cell phones, and computers. As we prepare students for a world that is experiencing an unprecedented technological revolution, we must not lose sight of the existence of multiple and evolving forms of literacy.

Effective Literacy Practices for ELLs in the Elementary Grades

Determining what is best for all students, including ELLs, depends on many factors, including: teachers' own perspectives and experiences; school, district, and state curricula; the kinds of programs and supports available to the students; and the needs and strengths of the students. In this section, we first discuss key elements to consider (in addition to literacies and modalities) when developing a literacy program for elementary classrooms with ELLs. This discussion is followed by effective prereading and reading strategies for ELLs. Reading strategies are grouped around two broad categories: beginning readers and intermediate readers.
When planning literacy instruction for ELLs, educators need to consider their unique strengths and needs, including their distinctive backgrounds and experiences. In addition, teachers might want to consider the following elements when developing a successful literacy program.

Theoretical Orientation

Deciding on the teacher's theoretical orientation to reading instruction (e.g., phonics approach, skills approach, whole-language approach, biliteracy) is a very important first step to guide the program. This does not necessarily mean that only one perspective needs to be adopted. Successful teachers of ELLs are often very creative and integrate different perspectives and approaches.

Language-Rich Environment. Surrounding ELLs with ample opportunities to hear and use language for meaningful purposes fosters the acquisition of English and the affirmation and acquisition of English through the native language, depending on the kind of program. Continuous modeling, ongoing feedback, a stress-free environment, and reasons to use the target language through the use of multimodalities all help students become better language users.
Meaningful Literacy. Learning how to read and write should not be equated with disconnected skill-and-drill practices. On the contrary, literacy learning should happen when students are engaged in actual, meaningful literacy acts within real-life environments.
Culturally Relevant Literacy Practices. Cultural practices are central to literacy learning. These practices play a tremendous role not only in how people learn to communicate orally or in written form but also in shaping the thinking processes of individuals. A classroom environment that acknowledges, responds to, and celebrates different literacy practices offers students opportunities to benefit, in a just and equitable manner, from the schooling experience.

Additive Perspective on Language

As mentioned throughout this book, the key is to consider students' languages as resources. Even when instruction is only delivered in English, the goal should be to add English to students' linguistic repertoire, not to replace it. Learning a second language should not be equivalent to losing the first language. On the contrary, additive bilingualism is promoted when students' first languages and cultures are affirmed and developed. Additive bilingualism is linked to self-esteem, increased cognitive flexibility, and higher levels of proficiency in the second language.

Emphasis on Academic Language

The development of academic English needs to be an instructional goal for ELLs starting in the earliest grades. Students benefit from having deliberate academic language instruction done consistently and simultaneously during language arts and content-area instruction.

Reading Strategies

Prereading Strategies

Engaging students in prereading activities is one of the most successful strategies for motivating them to read and to activate and build their background knowledge on topics or concepts contained in the reading selection. Activation of relevant knowledge is extremely important for ELLs, who might not feel confident about their ability to read in English. In addition, prereading activities can serve as a vehicle to elicit students' reactions and feelings about ideas and issues contained in the material to be read before confronting those issues in the text. See Figure 10.2 for selected strategies that have proven to be helpful to many teachers of ELLs.

Strategy	Description
Anticipation guides	Can be designed as a list of three to five statements related to concepts or issues with which students are asked to agree or disagree.
Discuss critical terms and concepts	Identify and discuss important terminology, concepts and grammatical structures beforehand by using visuals or brainstorming meanings.

Establish a purpose for reading	Explaining the purpose of the reading selection often helps students focus by understanding why they are reading.
Field trips, films, and videos	Field trips are ideal activities to build background knowledge and vocabulary on a topic. Film clips and videos provide a visual context and help build schema.
Graphic organizers	Can be used to record prior knowledge about a concept, topic, or book.
KWL chart	Often used as a whole-group activity; helps students activate prior knowledge, identify areas of interest, and reflect on their learning. You can use the following headings: What I Know, What I Want to Know, What I Learned.
Making predictions	Give students the title of the book or text and show some pertinent visuals. Based on this information, have students make two or three predictions as to what they think the book or text is about.
Preview/simplified text summary	A preview presents the gist of the longer text and is written using relatively simple sentence constructions. Visuals or graphics are also helpful.

Figure 10.2 Examples of prereading strategies for developing motivation, purpose, and background knowledge.

Reading Strategies for Beginning Readers

Beginning English readers, whether ELLs or not, are starting to make meaning from text. While some ELLs might need to be reminded to read from left to right and top to bottom, others might be starting to comprehend the text beyond the sentence level. Beginning readers, regardless of their age, need more familiarity and interaction with a variety of texts. See Figure 10.3 for a list of successful practices to support beginning readers.

Strategy	Explanation
Choral reading	During choral reading, all students read aloud from the same selection under the direction of the teacher or leader. It helps students improve sight vocabulary and develop effective read-aloud skills.
Guided reading	Students are grouped at similar reading levels read under the guidance of their teacher. When students encounter difficulty reading aloud, the teacher offers explicit instruction to help them better decode or comprehend the text.
Language experience approach	Children dictate their stories to an adult or older student based on their personal experiences. Through this approach, students provide the text and the topics that will be the basis for reading instruction.
Literature circles	This student-centered collaborative strategy affords students opportunities to participate actively in the selection, reading, and discussion of a book. Because student members of the circle each have a role with corresponding responsibilities, students take ownership of their learning.
Predictable and pattern books	These books offer students opportunities to anticipate or predict what is next because of the patterned structure in the book. Books have repeated segments that are easily learned and allow children to read along with their teacher.
Reader’s theater	Students perform a dramatic presentation of a written work in script form. It helps students perfect their fluency and speaking skills.

Shared reading with big books	Children join in the reading of a big book or other enlarged text as guided by a teacher. The teacher points at each word as children read together. This offers children opportunities to participate and behave like readers.
Story mapping	A story map is a visual representation of the settings or the sequence of major events and action of the characters in the story. This strategy helps students visualize story characters, events, and settings and also helps them develop a sense of story.

Figure 10.3 Strategies for beginning readers.

Strategies for Intermediate Readers

Intermediate readers are more familiar with reading a variety of texts for a variety of purposes. They can read with greater fluency because they have a larger sight vocabulary. However, they still have difficulty reading texts, particularly if the texts are about unfamiliar topics and have many new vocabulary words and sentence level constructions. Like their beginning reader counterparts, intermediate readers can benefit from supporting reading strategies like the ones listed in Figure 10.4.

Strategy	Explanation
Cognitive mapping	This graphic drawing summarizes a text and helps readers with comprehending and remembering what they have read.
Directed reading-thinking activity (DR-TA)	This strategy asks students to make predictions about a text and then reread to confirm or refute their predictions. Doing so encourages students to be active and thoughtful readers, thus enhancing their comprehension.
Individual student conference	This strategy involves one-on-one conferences with students and is designed to gather information about each student as a reader and to provide direct, explicit, and targeted support.
Learning logs	Via this personalized learning strategy, students record their responses to reading challenges. Each log is a unique record of the child's thinking and learning over time.
Literature response journals	Encourage students to draw, write, and talk about the books, poems, plays, or any other text they read. Through journaling, students experiment with a variety of writing skills and genres.
Think-alouds	Readers are asked to stop at various points during their reading and think aloud about the processes and strategies they are using as they read. This strategy allows teachers to observe students' thinking aloud during reading to assess comprehension and inform instruction.

Figure 10.4 Strategies for intermediate readers.

Key Elements for Improving Adolescent Literacy

There are important differences between teaching literacy to young children and to adolescents. These differences are more pronounced when teachers are working with ELLs. In the early grades, both ELLs and native English speakers are learning to read and write in English; in middle school and beyond, the focus shifts from literacy skills to the learning of academic content knowledge, skills, and ways of thinking. At the secondary level, there are fewer curricula and materials for ELLs and fewer content-area teachers prepared to address the needs of high school ELLs. Finally, the complexity of the texts, tasks, tests, and teachers' explanations can be overwhelming for students who are learning a new language and adapting to a new culture, and at the same time trying to achieve in the content areas. Fisher, Rothenberg, and Frey (2007) compiled a list of strategies based on the findings from *Reading*

Next: A Vision for Action and Research for Middle and High School Literacy (Biancarosa and Snow, 2006) completed for the Carnegie Corporation. This report, written by a panel of experts, identified 15 recommendations for addressing the needs of struggling adolescent readers and writers. One main point highlighted by *Reading Next* is the need to expand the efforts placed on literacy in the early grades (e.g., Reading First) to include acquiring literacy skills that can serve youth for a lifetime. Figure 10.5 presents nine important strategies from this report and their implications for effective reading instruction with adolescent ELLs.

Instructional Practice	Explanation	Focus on ELL
1. Direct, explicit comprehension instruction	Teach the strategies and processes that proficient readers use to understand what they read.	• Model, model, model! • Elaborate instruction rather than simplify.
2. Diverse texts	Use texts at a variety of difficulty levels and on a variety of topics.	• Ensure access for ELLs through differentiated texts that address the same topic.
3. Effective instructional principles embedded in content	Use content-area texts in language arts classes and teach content-area-specific reading and writing skills in content-area classes.	• Use content as a vehicle to teach language—students do not learn language in a vacuum. • Incorporate language teaching throughout the day, throughout different content areas.
4. Intensive writing instruction	Form bridges to the kinds of writing tasks ELLs will have to perform in high school and beyond.	• Assign tasks that require high levels of critical thinking and teach the language and strategies need to analyze, critique, justify, etc. • Scaffold writing instruction through talk, visuals, graphic organizers, writing frames, and the gradual release of responsibility.
5. Motivation and self-directed learning	Build motivation to read and learn and provide students with the instruction and supports needed for independent learning tasks that they will face after graduation.	• Teach students to take responsibility for learning and engaging as active, not passive, learners.
6. Ongoing formative assessment	Learn how ELLs are progressing under current instructional practices.	• Assess all four language domains: reading, writing, speaking, and listening. • Assess access to, comprehension of, and utilization of new technologies • Provide focused, selective feedback that differentiates between language and content.
7. Strategic tutoring	Provide students with intense individualized reading, writing, and content instruction as needed.	• Use small group instruction to address similar needs and develop language proficiency when the teacher or aide is present.
8. Technology use	Use technology both as a tool and a topic for language and literacy instruction.	• Use technology to scaffold understanding through visuals and access to a diversity of sources in multiple formats and languages.
9. Text-based collaborative learning	Encourage interaction among student around a variety of texts.	• Group students heterogeneously to provide language models and scaffolds for learners.

Figure 10.5 Key elements of effective reading instruction for ELLs.
Source: Adapted from *Language learners in the English classroom* by D. Fisher, C. Rothenberg, and N. Frey**.** Copyright (2007) by the National Council of Teachers of English. Reprinted with permission.

Effective Writing Instruction for ELLs

Writing well in English is one of the most difficult skills for ELLs to master. Many ELLs continue acquiring vocabulary and syntactic competence in their writing throughout their lives. Students may show varying degrees of English language acquisition, and not all second language writers have the same difficulties or challenges. Teachers should be aware that ELLs may not be familiar with terminology and routines often associated with writing instruction in the United States, including the writing process, drafting, revision, editing, workshop, conference, audience, purpose, or genre. Certain elements of discourse, particularly in terms of audience and persuasion, may differ across cultural contexts. The same is true for textual borrowing and plagiarism. Figure 10.6 depicts 11 key elements that have proven effective for helping students learn to write well and to see writing as a tool for learning. These elements are based on the work done by Graham and Perin (2007) and Fisher, Rothenberg, and Frey (2007).

Instructional Practice	Explanation	Focus on ELL

1. Collaborative writing	Use instructional arrangements in which students work together to plan, draft, revise, and edit their writings.	• Provide opportunities for students to practice oral language to hear and rehearse models of language they can transfer to writing.
2. Inquiry activities	Engage students in analyzing data to help them develop ideas and content for a particular writing task.	• Ensure that ELLs are engaged in tasks that require high-level critical thinking.
3. Prewriting	Engage students in activities designed to help them generate and organize their ideas for compositions.	• Provide opportunities that encourage students to practice oral language.
4. Process writing approach	Integrate a variety of writing activities in a workshop that focuses on extended writing opportunities, writing for authentic audiences and purposes, personalized instruction, and cycles of writing.	• Provide daily opportunities to practice writing. • Link assignments to personal experiences to activate background knowledge.
5. Sentence combining	Teach students to construct increasingly complex, sophisticated sentences.	• Use this as a way to teach grammar in context.
6. Specific product goals	Assign students specific, reachable goals for the writing they will complete.	• Break down goals as needed to make writing less overwhelming for students who are learning language at the same time as they are learning writing strategies.
7. Study of models	Provide students with opportunities to read, analyze, and emulate models of good writing.	• Provide a variety of models before students are required to create a product independently.
8. Summarization	Explicitly and systematically teach students to summarize texts.	• Use graphic organizers to help ELLs chunk text for summarizing.
9. Word-processing skills and tools	Use computers and other kinds of technology as instructional supports for writing assignments.	• Teach students to use spell checkers and online thesauruses and dictionaries (including in their native languages). • Provide prescreened websites for research.
10. Writing for content learning	Use writing as a tool for learning content material.	• Build background knowledge before asking students to write. • Provide students with opportunities to talk with peers before asking them to write.
11. Writing strategies	Teach students strategies to plan, revise, and edit their compositions.	• Teach the organization of various genres—the organization of writing can vary from culture to culture.

Figure 10.6 Key elements of effective writing instruction for ELLs.
Source: Adapted from *Language learners in the English classroom* by D. Fisher, C. Rothenberg, and N. Frey. Copyright (2007) by the National Council of Teachers of English. Reprinted with permission.

The Language of English Language Arts

English language learners face a daunting task. They must acquire a multifaceted knowledge of the English language as they learn demanding grade-level content-area knowledge. They must do all this while native-English-speaking peers continue to increase their knowledge of the English language and its use and application in the content areas. ELLs have a steep path ahead of them in playing catch-up with their peers in a relatively short time. As they learn new vocabulary and language features with their peers, they also have to learn the social and academic language that their peers have learned since they entered school—and even earlier. ELLs need explicit and systematic practice to develop a competent command of the language of school, including the many features of academic language. Following is a brief outline of the standards under the English Language Arts (ELA) CCSS and their influence on shaping academic language. Finally, a discussion of the features of academic language in the English language arts classroom is included.

English Language Arts Common Core State Standards

The CCSS outline four strands of ELA instruction: reading, writing, listening/speaking, and language. These standards were designed to be taught concurrently and dictate increasing grade-level expectations. Under these standards, students who are college and career ready will be able to:

- Read, comprehend and analyze complex texts.
- Read texts across many content areas.
- Formulate arguments.
- Identify a speaker's argument and point of view.
- Ask pertinent questions.
- Use academic vocabulary.
- Reference sources.
- Complete meaningful research and in-depth study.
- Share knowledge through speaking and writing.
- Cite specific evidence.
- Use technology to enhance communication.
- Seek to understand different cultural perspectives.

If English learners are going to reach these standards, Gottlieb & Ernst-Slavit (2014) indicate that their teachers will have to be aware of the following aspects:

1. Features of academic language, from vocabulary, phrases and expressions to sentence level structures and a variety of diverse discourse or text types;
2. Challenges that students will encounter along the way, such as understanding the subtleties of diverse texts, idiomatic expressions, and unique usages;
3. Compatibility of the backgrounds and experiences of students with the texts required for a particular task.

The move towards standards-based teaching and learning is a national effort to improve educational success for all students; it is based on the assumption that all learners can reach higher levels of achievement if "expectations for all students are raised, standards are clearly defined, instruction and classroom assessment are differentially planned, leadership supports learning, and students are held accountable for their performance" (Gottlieb & Ernst-Slavit, 2014: 168).

STOP AND DO

Think back to Chapter 1 where you read about the different aspects of academic language: vocabulary, sentence level structures, discourse types, and language functions. Add two or three additional examples for each category in the chart below that are recurrent in the English language arts classroom.

Aspect(s) of Language	***Examples***
Vocabulary	*simile*
Sentence level structures	*hyperbole*
Discourse types	*argumentative essay*
Language functions	*argue*

Word/Phrase Level

The difference between the right word and almost the right word is the difference between lightning and a lightning bug.

—Mark Twain (1987)

As the Twain quote indicates, one of the most important challenges facing ELLs is the acquisition of the vocabulary needed to actively and successfully participate in all facets of school. ELLs encounter thousands of different words in texts, group work, classroom discussions, and tests, just to mention a few, and they need to learn many of them in a short time!

Harvard professor Catherine Snow (2005) concludes that, by the time middle-class students with well-educated parents are in third grade, they probably know 12,000 English words; she adds that, ideally, students should know 80,000 words by the time they graduate from high school. If some students are learning only 75% as fast as their peers, then huge deficits can be accrued.

Like other content areas, the English language arts classroom has its own set of general, specialized, and technical academic vocabulary. Figure 10.7 presents selected examples.

Vocabulary Type	Definition	Examples	
General academic vocabulary	Terms used in content areas in addition to English language arts	• convey • theme • symbol	• background • opposite • reference
Specialized academic vocabulary	Terms associated with English language arts	• adjective • adverb • clause	• preposition • tense • diction
Technical academic vocabulary	Terms associated with a specific English language arts topic (e.g., Greek drama)	• catastrophe • catharsis • chorus	• hubris • thespian • parados

Figure 10.7 Examples of vocabulary types in English language arts.

Vocabulary teaching strategies

Students can learn and use new words if they have daily opportunities to practice their newly acquired vocabulary. Students gain a deeper understanding of the meaning of words and their relationship to other words when explicit vocabulary instruction is presented daily via diverse strategies that target group of words. Selected teaching vocabulary strategies for all students are presented below.

- **Root words**. Students learn high-frequency roots from Latin or Greek (see Chapter 8 for examples). Students collect words with the roots and learn their meanings.
- **Personal vocabulary journal**. Students select new words and concepts and record them.
- **Word games and word play.** Games are fun ways to have students practice new words.
- **Word or concept maps.** A graphic organizer is created for each new word. It helps students engage with and think about new terms in several ways (see Figure 10.8).
- **Acting out.** Give each student one card with different instructions (e.g., “Open the window slowly”; “Carefully open your book”).
- **Word sort.** Students sort a series of words into various categories; later, they discuss their answers and the categories.
- **Focus on cognates.** This is an excellent way to build on and make connections to the preexisting knowledge that ELL students bring if their first language shares cognates with English. It also helps other students recognize the value of speaking other languages. See Figure 10.9 for an example.

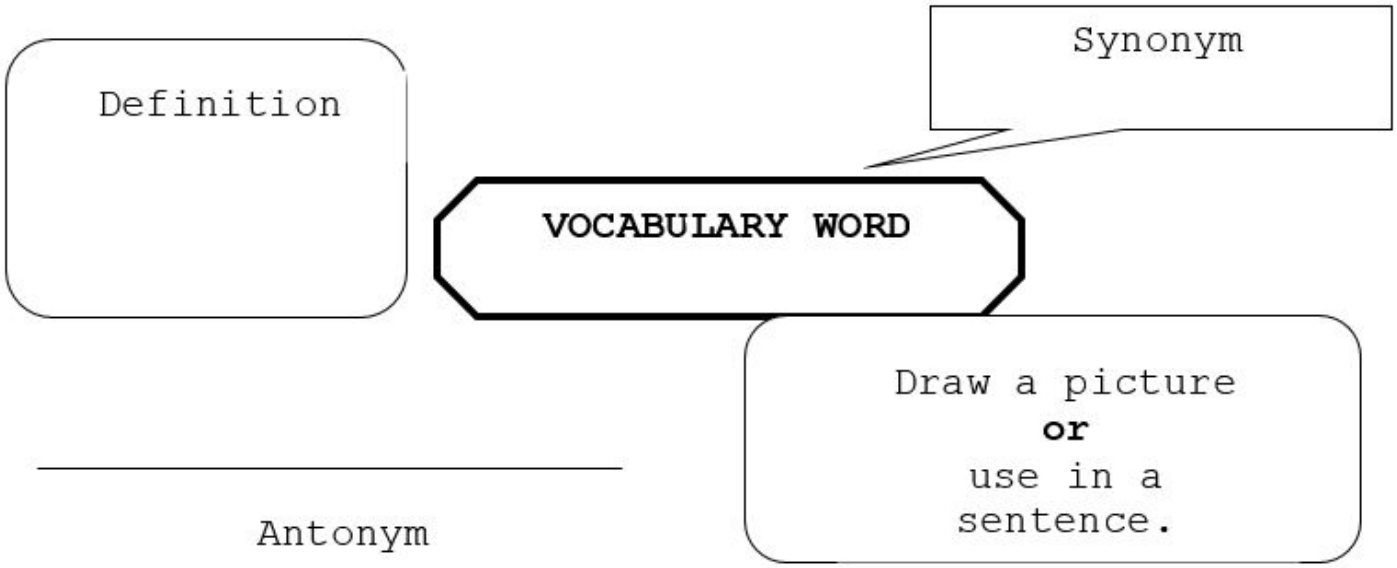


Figure 10.8 Example of a word map.

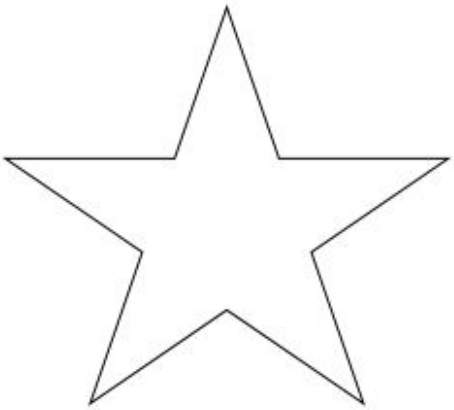
	Words for *star*	**Languages**
	str star aster Stern ster stea stjerne setare estrella estrela estêre	Sanskrit Sinhala Greek German Dutch and Afrikaans Romanian Norwegian Persian Spanish Portuguese Kurdish

Figure 10.9 Cognates for the word *star.*

- **Vocabulary guides.** This strategy is effective when using grade-level materials that are inaccessible to readers because they contain too many unfamiliar words. Guides can have definitions of the difficult terms or synonyms.
- **Key word method.** This mnemonic strategy uses a key word that can be associated with the target word based on meaning and sound and helps students recall the term.
- Target word: *carline* Meaning: witch
- Teacher identifies the word *car* (easy to represent visually and it sounds like the first part of the target word). Teacher shows a picture of a witch sitting in a car.
- When asked to recall the definition of *carline*, students follow a four-step process:
- Think back to the key word: *car*
- Think of the picture: a car
- Remember what else was in the picture: a witch was in the car
- Produce the definition: witch. (Mastropieri & Scruggs, 1998)

Sentence Level Features

Some grammatical features are especially troublesome for ELLs. Some are learned through usage, practice, and feedback, but others take longer and require a deliberate and explicit instructional approach. Although all teachers need to provide opportunities for ELLs to work on sentence level structures, the English language arts classroom is a prime setting for understanding and using correct grammar structures.

Students learning English as a second, third, or fourth language may encounter a variety of challenges as they try to apply the linguistic knowledge from their first language to English. This process is called **language transfer**. For example, students who speak a Slavic language (e.g., Russian, Croatian, Polish) have difficulty understanding the term *article* in English (when it is used to refer to *the* and *a/an*) because it does not have a direct translation in Slavic languages.

STOP AND DO

A useful guide on language transfer issues for students speaking Spanish, Vietnamese, Russian, Korean, Arabic, Tagalog, Khmer, Cantonese, Hmong, and Haitian Creole is Teacher's Resource Guide of Language Transfer Issues for English Language Learners (2004), published by Rigby at https://schd.ws/hosted_files/onebyone2017/7a/Rigby%20Language%20Transfer%20Guide.pdf. Find information on students you have or expect to have in your school, and share that information with classmates.

In 2003, Robin Scarcella identified 10 major areas of focus for grammar instruction for ELLs: sentences, subject–verb agreement, verb tense, verb phrases, plurals, auxiliaries, articles, word forms, fixed expressions and idioms, and word choice. Figure 10.10 provides a list of these 10 areas with definitions and examples.

Grammatical Features	Example	Incorrect Use
1. Sentence structure All sentences have one subject and one main verb.	My tutor was the only one who helped me.	My tutor only one to help me.
2. Subject–verb agreement Subjects must agree with verbs in number (the s rule).	They come from China. He comes from Kenya.	He come from Kenya.
3. Verb tense The present tense is used to refer to events that happen now and to indicate general truth. The past tense is used to refer to events that happened before now.	My teacher explained how important recycling is for our planet.	My teacher explains how important recycling was for our planet.
4. Verb phrases Some verbs are followed by to + base verb. Other verbs are followed by a verb ending in -ing.	My teachers convinced me to read many books	My teacher convinced me read many books
5. Plurals A plural count noun (e.g., dog, plant) ends in an s.	She has two dogs.	She has two dog.

6. Auxiliaries Negative sentences are formed by placing do/did + not in front of a base verb.	Do not cut the trees.	Not cuts the trees.
7. Articles Definite articles generally precede specific nouns that are modified by adjectives.	I speak the Japanese language.	I speak Japanese language.
8. Word forms The correct part of speech should be used—nouns for nouns, verbs for verbs.	We have confidence in our new president.	We have confident in our new president.
9. Fixed expressions and idioms Idioms and fixed expressions cannot be changed in any way. They are treated as a whole.	You need to get your ducks in a row.	You need to get your chickens in a row.
10. Word choice Formal and informal words should be used in formal and informal settings or contexts, respectively.	Dear Dr. Thorne	Hi Dr. Thorne

Figure 10.10 Ten grammatical features that English language learners need to know.

STOP AND DO

Idioms are phrases in which the words together have a meaning that is different from the dictionary definions of the individual words. Idiomatic expressions are hard for ELLs to understand. Examples of idioms include "Break a leg," "as good as new," and, "it's raining cats and dogs." For a list of over 3,000 English idiomatic expressions, see UsingEnglish.com at http://www.usingenglish.com/reference/idioms/.
Select several local or online newspaper headlines. Paste them on a poster board and assign each a number. Identify the figure of speech in each line by number and explain in concrete terms what the line is saying. Here are some examples:

> "Updike's way with words extended to baseball."
> "Injured Duran ready to climb right back on that beam."
> "AT&T's earnings take a hit in fourth quarter."
> "Celebrity parties going head-to-head at Super Bowl."
> I am confused about. . . .
> What do you think this . . . means?
> This part . . . does not make sense to me.

Asking questions

- What caused . . . ?
- I wonder how did . . . ?
- What would happen if . . . ?

Commenting

- My favorite part so far is . . . .

- This is confusing because . . . .
- This is hard because . . . .

Connecting

- This is similar to . . . .
- This reminds me of . . . .
- The problem here is like . . . because . . . .

Disagreeing

- I see your point, but I . . . .
- My idea/position/answer is a little different because . . . .
- I got a different result than you.

Expressing an opinion

- I think . . . because . . . .
- In my opinion . . . .
- It seems that . . . .

Predicting

- I guess that . . . .
- I anticipate . . . .
- I'm expecting . . . to happen because it says . . . .

Offering assistance

- May I help you . . . ?
- It looks like you might need some help.
- Maybe we could . . . .

Paraphrasing

- Another way to say it is . . . .
- In other words, ...
- I hear you say . . . .

Suggesting

- Perhaps if you . . . .
- Have you considered . . . ?
- Another idea would be to . . . instead.

Figure 10.11 Sentence starters for scaffolding conversations.

Discourse Level Features

The English language arts classroom uses a variety of genres, as depicted in Figure 10.12. ELLs may not be familiar with some of these discourse forms or may not feel comfortable preparing a poetic response or a critique because these language forms might not be seen as academic in their countries

and cultures. This suggests the need to clearly define and review expectations for each genre.

autobiography	editorial	poetic response
ballad	expository essay	digital presentation
biography	monologue	script
blog	narrative	sonnet
caption	newspaper article	response logs
critique	persuasive essay	webpage

Figure 10.12 Types of discourse in the English language arts classroom.

Conclusion

The English language arts classroom is an ideal place for ELLs to learn many of the much- needed features of academic language. However, a heavy emphasis on form might not render the best results. ELLs (indeed all students) need to be able to connect what they are learning with what they already know and to build on their linguistic and cultural resources. In that sense, thinking about multiple literacies and not just one provides students the much-needed comfort and strength to add additional literacies. Finally, literacy instruction is enhanced if it is meaningful to the students, is done explicitly and systematically, and considers increasingly diverse oral, written, and technology-based practices.

Extensions

For Reflection

1. *Multiliteracies*. Think about the diverse types of texts and writings you or your students are exposed to in one day. How is written language used within the school setting? Outside the school? For example, if a student takes the school bus in the morning, then walks to her piano lesson, and later attends her brother's basketball game, what kinds of literacy practices does she encounter throughout the day?
2. *Language functions in one hour.* Reflect on one recent lesson you taught or in which you participated as a student. Think about the number of language functions (that is, what students were asked to do with language) used during that one lesson. How might you teach an ELL how to use language functions appropriately?

For Action

1. *Teaching vocabulary.* Select a book that you like from Vocabulary.com (http://www.vocabulary.com//index.php?dir=general&file=books) or another website and locate the list of vocabulary words for that book. Plan how to teach these vocabulary words using two or more of the strategies for teaching vocabulary discussed in Chapter 10.
2. *Writing and grammatical features.* Analyze selected ELL student writing samples. What evidence do you find of a lack of familiarity with grammatical structures (see Figure 10.10) that might be different from errors made by native English speakers? How could you, as a teacher, help ELLs learn these usages and features?
3. *Review the following online resources for discussions on multiliteracies and new literacies.*
4. Coiro, J., Kiili, C. & Casek, J. (2017). *Remixing multiliteracies: Theory and practice from New*

London to new times. NY: Teachers College Press.
5. Cazden, C., Cope, B., Fairclough, N., & Gee, J. (1996). A pedagogy of multiliteracies: Designing social futures. *Harvard Educational Review, 66*, 60–92. Retrieved from http://vassarliteracy.pbworks.com/f/Pedagogy+of+Multiliteracies_New+London+Group.pdf
6. Leu, D. J., Forzani, E., Rhoads, C., Maykel, C., Kennedy, C., & Timbrell, N. (2015). The new literacies of online research and comprehension: Rethinking the reading achievement gap. *Reading Research Quarterly, 50(*1), 37–59. Available at: http://www.edweek.org/media/leu%20online%20reading%20study.pdf.pdf
7. Munger, K.A. (2016). *Steps to success: Crossing the bridge between literacy research and practice*. Geneseo, NY: Open SUNY Textbooks. Retrieved from: http://textbooks.opensuny.org/steps-to-success/
8. Villagómez, A., Wenger, K., & Ernst-Slavit, G. Blogging the way to understanding: Constructing meaning through reflection and interaction. In L. de Oliveira, M. Klassen & M. Maune (Eds.). *Common Core State Standards in Language Arts, Grades 6-12* (pp. 95-110). Alexandria, VA: TESOL Press.
9. *Explore lessons.* See Gottlieb, M. & Ernst-Slavit, G. (Eds.), (2013, 2014). *Academic language in diverse classrooms: Promoting content and language learning English language arts.* Thousand Oaks, CA: Corwin/SAGE Retrieved from https://us.corwin.com/en-us/nam/author/gisela-ernst-slavit. Examine the examples of complete ELA units of instruction in diverse classrooms with large numbers of ELLs (see the chapters listed below). Each chapter shows how teachers designed, implemented, and differentiated instruction for English learners for one unit of instruction. Each chapter also shows how the teacher integrated sets of standards such as the CCSS and English language development standards. Discuss what you see in light of what you read in this chapter.

Vol.	Authors	Grade Level	Content Topic
1	Grabriela Cardenas Olivia Lozano Barbara Jones	K	Reading and Oral Language Development: My Family and Community
	Eugenia Flores-Mora	1	Using Informational Texts and Writing Across the Curriculum
	Sandra Mercuri Alma D. Rodriguez	2	Developing Academic Language Through Ecosystems
2	Terrel A. Young Nancy L. Hadaway	3	Informational and Narrative Texts: Our Changing Environment
	Penny Silvers Mary Shorey Patricia Eliopoulis Heather Akiyoshi	4	Biographies, Civil Rights, and the Southeast Region
	Mary Lou McCloskey Linda New Levine	5	Literature and Ocean Ecology
3	Emily Y. Lam Marylin Low Ruta' Tauliili-Mahuka	6	Argumentation: Legends and Life
	DarinaWalsh Diane Staehr Fenner	7	Research to Build and Present Knowledge
	Liliana Minaya-Rowe	8	Gothic Literature: "The Cask of Amontillado"

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11

Chapter 11: Unlocking the Language of Social Studies*

*FootnoteAs a point of clarification, the National Council for the Social Studies (NCSS) uses the phrase ***the*** *social studies* to refer to the overarching group containing diverse disciplines. When we refer to social studies or social studies classrooms, we mean subjects and locations in the context of K–12 public schools.

Key Issues

1. The field of social studies includes many disciplines (e.g., archaeology, history, philosophy, psychology, financial literacy, multicultural studies, economics), each with its own set of language demands.
2. Social studies may be the most difficult content area for English language learners (ELLs) because they may be unfamiliar with many of the topics, particularly in relation to history.
3. Many terms in social studies are abstract, hard to translate, and culturally based.
4. Social studies textbooks and curricula assume that students have a great deal of background knowledge—knowledge that U.S. students accumulate over time from one grade level to the next.
5. Many strategies and approaches are available for enhancing the learning experiences of ELLs in social studies classrooms of all types.

Read the scenario below and reflect on how you would answer the teachers question to herself.

The sound of excited, high-pitched voices reached the ears of fourth-grade teacher Sheila Covington scant seconds before Catherine, Angélica, and Kamelya demanded her opinion.
“Miss Covington! Miss Covington!” chimed the girls. “We have a question.”
Knowing that a question from these three students could range from the merits of the latest video game to the political situation in the Middle East, Sheila mentally braced herself.
“We don’t understand something,” began Angélica. “I was born in Mérida, México, which makes me Mexican.”
“Yes, and I was born here in the United States, so I’m an American!” asserted Catherine.
“But Kamelya’s parents . . . .”
“I was born in Russia,” stated Kamelya calmly and clearly, “but I am Turkish. Everyone speaks Turkish in my family and that’s the only language we speak at home. It was only when I entered school that I learned Russian, but I am not Russian.”
“But, Miss Covington, that just doesn’t make sense to us,” explained Catherine and Angélica.
“Ah, the complexities of a multinational, multicultural identity are tough concepts to explain,” thought Sheila. “I have noticed that an increasing number of our immigrant ELL students have complex identities. Now, how can I explore and clarify the ideas of nationality, citizenship, and culture with 9- and 10-year-olds?

About the Field of Social Studies

According to the National Council for the Social Studies (NCSS, 2010), social studies is the integrated study of the social sciences and humanities to promote civic competence (NCSS, 2010). The field of social studies within the U.S. context has three important distinctions: (1) it is designed to promote civic competence as determined by U.S. norms; (2) it is cumulative, building on content learned over many years; and (3) it is integrative, incorporating many disciplines such as anthropology, archaeology, economics, geography, history, law, philosophy, political science, psychology, religion, and sociology. The National Curriculum for Social Studies (2010) is organized around ten themes:

1. Culture	2. Time, Continuity, and Change
3. People, Places, and Environments	4. Individual Development and Indetity
5. Individuals, Groups, and Institutions	6. Power, Authority, and Governance
7. Production, Distribution, and Consumption	8. Science, Technology, and Society
9. Global Connections	10. Civic Ideals and Practices.

The aims, focus, and characteristics of the social studies curricula all contribute to making the diverse disciplines of social studies difficult subject areas for ELLs. The integrative nature of social studies assumes that students have certain knowledge and skills in many other disciplines. In addition, the emphasis on democracy might be completely new for students and in direct contradiction to some of their traditions or political perspectives. The NCSS further states:
The primary purpose of social studies is to help young people develop the ability to make informed and reasoned decisions for the public good as citizens of a **culturally diverse**, **democratic society** in an **interdependent world**." (emphasis added; NCSS, n.d., para. 3)
As the chapter-opening vignette illustrates, cultural diversity and the results of worldwide population migration are readily encountered in U.S. classrooms. Today's educators must be prepared to interpret such encounters with sensitivity because the outcomes affect not just academic achievement but the well-being and personal identity of ELL students. As Salinas, Franquiz and Reidel (2008) point out, "Because late-arrival students have binational, if not transnational, experiences, there is the possibility for potentially divergent understandings of citizenship" (p. 74). In an increasingly diverse society, the plurality of identities challenges traditional views of citizenship and nationality, amplifies the notion of global identity, and gives credence to Gloria Anzaldúa's poem "To Live in the Borderlands Means You" (1999).

Besides the difficulties inherent in multinational identities, and as the challenges listed in this chapter suggest, some educators believe that social studies may be the most difficult content area for ELLs because of the invisible features of many of the topics in the field. The following list explains some of these features:

1. *Content may be new*. For example, concepts such as *liberty, democracy, taxation, civil rights,* and *free will* might be completely unknown by students coming from countries with long-term dictatorships or dictatorial regimes.
2. *Topics are not only abstract but language-dependent, too*. For example, students will encounter abstract concepts such as *justice*, *responsibility*, and *First Constitutional Congress,* which require students to depend more on reading and listening.
3. *The field of social studies incorporates many disciplines*. The field of social studies incorporates many disciplines, as listed previously, and it utilizes numerous skills and processes from math,

science, and language arts.

4. *The field relies on extensive background knowledge*. For ELLs who received part of their elementary education outside the United States, the lack of prior exposure to the elementary social studies curriculum may pose enormous challenges because they will need to learn not only the grade-level content but several years of previous social studies curricula.
5. *History is presented in a linear manner, like a timeline*. This presentation may cause some confusion for students coming from educational systems where history is learned around selected dynasties or periods.

Additional potential challenges for ELLs in social studies classrooms include:

- Most high school ELLs have not had seven or eight years of instruction in U.S. elementary and middle schools, and their prior knowledge may be significantly different from that of their U.S. peers.
- Social studies vocabulary can be highly technical and abstract.
- Often, ELLs are not familiar with historical concepts, terms, or U.S. governmental processes.
- Social studies require very high literacy skills because much of the instruction comes through teacher lecture and textbook reading.
- Textbooks often lack clear and complete explanations of the topics they present.
- Textbooks often use passive voice, intricate sentences, and pronouns that can make it difficult for ELLs to understand passages.
- The worldview(s), perspectives, and values presented in textbooks and public school curricula may be very different from those of ELLs' families and countries.
- ELLs may not be accustomed to offering their personal opinions and challenging texts and others.

In addition to lack of familiarity with the language and content of social studies, ELLs may encounter additional challenges with a number of classroom activities. For example (and as reviewed in previous chapters), many ELLs may be unfamiliar with group work, debates, timelines, and oral reports. They may never have questioned authors or teachers' ideas, and they may have never ventured their own opinions before.

Another area that presents challenges for ELLs is the perspective from which U.S. texts are written, that is, from local and national viewpoints. Students coming from other nations may have significantly divergent worldviews. For example, when studying the diverse peoples of the West, Chinese students may feel that textual descriptions of Chinese laborers are incomplete, inaccurate, or biased. Similarly, when studying the continents, ELLs may find that their knowledge about the continents is considered erroneous because in many countries, children are taught that there are five continents, not the seven taught in U.S. schools. Because social studies is inherently culture-specific, the perspective presented in the textbook and in the school curriculum may be different from what ELLs learned in their native countries.

Disciplines within social studies, however, can provide ideal settings for teaching ELLs. A case in point is world geography. As suggested by Salinas, Fránquiz, and Reidel (2008), an emphasis on cultural geography can be ideal for connecting the content of the curriculum with students' lives. In the area of physical geography, the study of physical features such as plains, mountains, rivers, valleys, and lakes, among others, can be taught using many types of educational supports such as visual aids, hands-on activities, illustrations in textbooks, or searching the Internet.

In sum, academic success in social studies classrooms requires that students acquire much of the background knowledge that children raised in the United States have learned over many years. In the following sections, we discuss some of the particular characteristics of the language of social studies

that may pose challenges for ELLs as they try to learn both language and content.

Scenario, Continued
Later that day, after school, Sheila sat down to consider how she could approach the identity issues brought up by Catherine, Angélica, and Kamelya. To generate some ideas, she turned to *Expectations of Excellence: Curriculum Standards for Social Studies* prepared by the National Council for the Social Studies (NCSS) and the CCSS. As she encountered pertinent phrases, she jotted them down. After a few minutes of scanning, she had generated the following list:

- Multidisciplinary
- Perspectives: personal, academic, pluralist, global
- Of the 10 themes and/or organizing strands stated in the standards, these seem to apply the best:
- Individual Development and Identity
- Individuals, Groups, and Institutions
- Power, Authority, and Governance
- Global Connections

Thinking back to exactly what the girls had said, Sheila suddenly realized the implicit meaning buried in the phrase *I am* _____. While common usage of English permits one to say, "I **am** American," as Catherine had done, the actual message conveyed can be multifaceted unless specified by the speaker. For instance, Catherine's statement could be interpreted as:

> I am an American **citizen**.
> I am an American **national** (meaning "I was born in America").
> My **culture** is American.
> America is the **continent of my birth**. (Remember: Canadians, Guatemalans, and Peruvians are "Americans," too!)

The phrase *I am* _____ reflects a state of being. As such, it is intimately connected to identity.

National Curriculum Standards for Social Studies and CCSS

The 2010 revision of the National Curriculum Standards for Social Studies (NCSSS) provides a framework for teaching, learning, and assessment in social studies that includes a clear articulation of curriculum objectives and reflects alignment across the different sections of the document. This 2010 revision is organized around the ten themes of social studies and offers a sharper focus on five areas:

- Purposes;
- Questions for exploration;
- Knowledge: what learners need to understand;
- Processes: what learners will be capable of doing;
- Products: how learners demonstrate understanding.

A quick review at the current social studies standards framework, the CCSS for English language arts

(Grades 6-12 Literacy in history/social studies), and recently published social studies textbooks and blogs reveals a clear focus on academic language use. The CCSS and the accompanying NCSSS have moved a traditional focus on learning facts, dates, and names to a focus on skills, understanding a variety of perspectives, gathering information to support claims, and creating understandings of the world. Under the CCSS, social studies classrooms are surrounded by language, with students discussing what they view in a recently discovered photograph, reviewing original sources and Internet materials, and collaborating with each other. In classrooms like these, students are learning how to identify trustworthy sources of information online, how to comprehend what they are reading, and how to present their findings—orally and in writing—supported by evidence. Thus, all students, including ELLs, will need to access content knowledge and demonstrate that knowledge using a wide variety of via a variety of texts and modalities.

The Specialized Language of Social Studies

Read this passage:
Runaway horses, stampeded cattle, prairie fires, blizzards, heat, sunstroke, Indians, lice, snakes and the pure loneliness of the open plains—all of these and more faced the western pioneers of the 1800's. Certainly there were those who gave up, moving back to the security of the East, but many more stayed and helped build and shape the West one sod shack at a time, one small farm at a time and eventually one town at a time. They traveled forth on horseback, in Conestoga wagons . . . some even walked. For them it wasn't a question of how long it would take, only that it had to be done. And they did it. (American Westward Expansion 2006, para. 9)
In the passage above, analyzed by Brown (2007), we can observe the complexity of language and content for students who may not have knowledge of the westward expansion. The text is filled with rarely encountered terms, such as *stampeded, prairie fires, blizzards, open plains, western pioneers, sod shack, Conestoga wagons.* New terms like these can overwhelm readers and cause them to misinterpret the passage. The type of grammatical constructions (such as dependent or multiple clauses that connect a series of ideas, concepts, and facts, as in the excerpt above) may cause students to be unable to differentiate main points from supporting details.
This type of complexity is also present at the discourse level. For example, in middle and high school history classes, students are often expected to write argument papers about a particular issue. This is a difficult genre, and as stated by Achugar and Schleppegrell (2016), it requires that students construct the claims, analysis, and evidence *before* they can construct effective arguments. Often, the specific linguistic features (like those for an argument paper) needed for students to successfully access and produce different types of genres are not necessarily taught within the social studies classroom, yet students are expected to be able to produce comparisons, syntheses, persuasive arguments, analyses, and classifications in the history classroom.
The social studies language register, characterized by an abundance of unfamiliar vocabulary terms, difficult grammatical constructions, and distinctive genres, can present many challenges even to the average native English-speaking student. Thus, for ELLs—even those at advanced levels of language proficiency—the language of social studies can pose numerous obstacles. More detailed explanations and examples showcasing the uniqueness of the language of social studies are presented below. These explanations and examples are organized into sections about vocabulary, sentence level features, and discourse features.

Word/phrase level

The social studies register includes a vast number of words, phrases, and expressions drawn from the social sciences, natural sciences, and the humanities. Each of the more than 10 disciplines covered in social studies has its own set of specialized terminology and concepts that students must understand and be able to use appropriately in order to succeed in this area. For instance, Figure 11.1 presents definitions and examples of general, specialized, and technical academic vocabulary terms needed to understand psychologist Erik Erikson's eight stages of human emotional development.
The vocabulary terms in Figure 11.1 pertain to just one short unit on human development. However, the vastness of the field of social studies in terms of disciplines and content suggests that the number of new terms, phrases, and expressions that ELLs encounter in the social studies classroom is extensive. In fact, in a study by Eric Dwyer (2007) investigating the vocabulary used in textbooks according to grade level, the findings indicated that the increase of social studies vocabulary by grade exceeded that of other content areas (as cited in Cho & Reich, 2008, p. 236).

General Academic Vocabulary	Specialized Academic Vocabulary	Technical Academic Vocabulary
Terms used in social studies and in other subjects	*Terms associated with social studies*	*Terms associated with a specific social studies topic*
• conflict resolution • theory • stages • adolescence • maturity	• identity crisis • human development • psychosocial development • inferiority • social pressure	• psychoanalysis • autonomy • stagnation • generativity • ego integrity

Figure 11.1 Types of vocabulary in social studies.

STOP AND DO

Select two areas and grade levels from the list below and jot down the academic terms and expressions that students need to know in order to participate successfully in the discussion of the corresponding topics.

Anthropology, elementary: understanding time capsules
Archeology, middle school: learning how to think like an archeologist
Economics, elementary: why and how we save
Geography, high school: demographer's challenge: understanding megalopolis
History, middle school: exploring the perils of colonization
Sociology, high school: theory and practice of crime and punishment

Another consideration in planning for and successfully teaching social studies vocabulary is that many terms may not have direct translations to other languages. For example, in the Russian language, words like *privacy*, *challenge*, *take care*, and *efficiency* have no direct translation. As you might expect, terms in other languages also do not have direct equivalents in English. For example, the French term *malencontreux* is an adjective that means "unfortunate, ill-timed, untimely, and inopportune" all at the same time. Also in French, the terms *gare* and *station* both translate as *station* in English; the former is used only for trains or buses, while the latter is used only for the metro, subway, or underground.
Another challenging aspect about many of the terms and concepts used in social studies, particularly in relation to history, is that words can be culturally situated and may have different meanings for

students coming from other countries. A case in point is the term *colony.* For most students born in the United States, the term *colony* is positively associated with the thirteen colonies, independence from Great Britain, and the beginning of the United States. For many immigrant students, however, the terms *colony* and *colonization* are associated with oppression, enslavement, and, in some cases, genocide.

How can we communicate "across unshared worlds" and "different points of departure" (Hasan, 2004)? The diversity of linguistic, cultural, social, and political perspectives makes it very difficult to translate terms and concepts to other languages, particular when dealing with sociocultural terms. For example, how can the nonspecific words *brother* and *sister* be translated into Mayan when that language has specific terms for *younger brother* or *older brother*? In another context, while finding words for colors in other languages is not difficult, the *connotations* that different colors have in different languages might make a fully nuanced translation rather tricky. Take, for example, the color red, as in *seeing red* (representing being angry) or *the red light district*. In Russian, the color red connotes beauty and is similar to the way *golden* is used in English. Hence, throughout the years, we have used the directly translated, color-bound phrases *Red Square* and *the Red Army* instead of the more socioculturally contextualized translations of "Golden Square" and "the Golden Army." One final example is the meaning of the color white. In the United States and in many European countries, white is associated with purity and moral goodness, hence, brides wear white during their wedding. In China, brides wear red because this color is associated with good luck, happiness, and prosperity, and people wear white only when a family member has died. In China, white is associated with weakness, paleness, and a lack of vitality.

Thus, it is not difficult to understand why language is so intertwined with culture. We have all heard that Eskimos have 27 words for *snow* and that the Puyallup Indians in the Northwest have numerous terms for *salmon*. For someone in Florida, snow is that "cold, fluffy, white stuff" that falls on the ground during the winter. For Eskimos, as for skiers, snow may take very different forms and textures that require different labels. Clearly, language is culturally bound.

STOP AND DO

People living in the northwestern portion of the United States use many synonyms and colloquialisms to refer to rain. Can you list at least six synonyms or phrases to use in place of the word "rain"? (One example is "mist.")

Some words and phrases have different layers of meaning because of their symbolic nature and emotional charge. Think about the terms *buffalo, colony, swastika, holocaust, Indian reservation*, *Crusades, Inquisition*, and *conquistador*. For some students, some of these terms may bring a host of feelings and additional layers of meaning.

Finally, another level of difficulty for ELLs in the social studies class is that many of the terms and concepts discussed are highly abstract, and their meanings are difficult to convey by giving a simple explanation or using visuals or illustrations. Some examples are the words *democracy*, *economy*, *citizenship*, *the Harlem Renaissance*, and *capitalism*. Unlike science or math classrooms, social studies classrooms do not often include the use of hands-on experiments or manipulatives.

STOP AND THINK

How would you help fifth-graders understand the following terms?			
abolitionist	*primary source*	*secondary source*	*debt*
urbanization	*physical and political boundaries*		*amendments*

Sentence level features

The following text comes from a social studies textbook:
The Non-Intercourse Act of 1809—a watered-down version of Jefferson's embargo aimed solely at Britain and France—was due to expire in 1810. To Madison's dismay, Congress dismantled the embargo completely with a bargaining measure known as Macon's Bill No. 2. While reopening American trade with all the world, Macon's Bill dangled what Congress hoped was an attractive lure. (Kennedy, Cohen, & Bailey, 2001, p. 228)
In their analysis of this text, Cho and Reich (2008) highlight the challenges faced by students: (1) the need to know the different meanings of discipline-specific words (e.g., *act*, *bill)*; and (2) encountering advanced vocabulary words such as *embargo*, *dismantle, dangle,* and *lure,* which they will most likely not find in their everyday lives. In addition to the vocabulary, the structure of the sentences tends to be very complex, where relationships of cause and effect are embedded in ways that make them difficult for ELLs to recognize (Cho & Reich, 2008, p. 237).
Other characteristics of textbooks and materials used in social studies classrooms include the use of the passive voice; complex and dense texts; and the abundance of dependent clauses or multiple clauses that connect a series of facts, ideas, and concepts in one long sentence. These and other features make it difficult for ELLs to differentiate main ideas from supporting details.
Cause-and-effect relations, discussed in Chapter 8, are also pervasive in social studies texts. An examination of texts and tasks used in social studies showed that selected linguistic signals cue student to time references, cause and effect, and comparison and contrast in text structures. Such signals include verb tenses and condition, expressions of time, rhetorical markers (e.g., temporal phrases, conjunctions), and causative words (e.g., *thus*, *hence*). Observations by Short (1994) in social studies classrooms demonstrate that explicit instruction of these signal words can be very beneficial in improving students' reading and writing skills. See Figure 11.2 for words that signal different types of organizational patterns.

Classification	Cause	Effect
various	because	finally
several	due to	as a result
numerous	on account of	thus
another	because	therefore
still others	reason	outcome
furthermore	leads to	consequently
first, second, third, etc.	led to	for this reason
1,2,3, etc.	as	hence
also	for the reason that	in order to
one	given that	so
Sequence	**Comparison**	**Contrast**

meanwhile initially previously next immediately presently formerly later after first, second, third, etc. ultimately finally	similarly both all by the same token likewise as well as in comparison as correspondingly equally in the same way	notwithstanding in spite of conversely even though nevertheless on the contrary instead despite regardless whereas although unlike however

Figure 11.2 Terms that signal a type of organizational pattern.

STOP AND THINK

Using the information about the specific characteristics of social studies vocabulary and grammatical constructions discussed in this chapter, imagine how an English learner might feel when opening a thick social studies textbook. What predictions can you make about the challenges that ELLs face?

Discourse Level Features

At the discourse level, we will discuss two specific aspects of the language of social studies: (1) the difficulties presented by social studies textbooks and other kinds of texts for all students, particularly ELLs, and (2) the different genres of language that students need to produce to be successful in the social studies classroom.

Difficulties Presented by Social Studies Textbooks and Materials.

In most social studies textbooks, facts and details are often condensed. In addition, concrete or anecdotal details, which can help ELLs connect unfamiliar concepts with what they know or have experienced, are often omitted. ELLs' difficulties with reading comprehension are further compounded by textbooks containing a high concentration of new vocabulary or complex sentence patterns. Research studies have analyzed the main characteristics of history and social studies textbooks and the challenges that selected features pose to ELLs when reading these texts (see, for example, Brown, 2007; de Oliveira & Obenchain, 2018; Schleppegrell & Achugar, 2003). The following list summarizes the main findings from these studies that may pose challenges to ELLs as they try to crack the textbook code:

- There are few graphic cues.
- There is a less predictable sequence compared with narratives. Thus, it is harder to predict what will happen next.
- Insufficient glossaries cause students to look up terms in dictionaries.
- Expository texts assume that readers have the necessary background knowledge to understand the text, and the texts do not fill in the gaps when readers lack relevant background information.
- Some readers' prior knowledge may be mismatched and could interfere with comprehension of the text.
- Vocabulary in social studies can be highly technical and abstract.

- Written discourse, particularly if it does not include pictorial or graphic material, lacks nonverbal clues to meaning, for example, facial expressions, intonation, or gestures.
- Instantaneous clarification and feedback are not possible, unlike face-to-face communication. Readers of written text must figure out what they are reading without input from the author. Without seeking the assistance of other people, readers must draw on their own prior knowledge and knowledge of the language and writing conventions in order to construct meaning from the text.
- Few terms, usually no more than 10, are defined per chapter.
- Sidebars, boxes, highlights, and other materials break up the main narrative, causing students to be uncertain about how to approach the text.

Diverse Written Genres.

As discussed above, the field of social studies encompasses several disciplines, each with its own sets of vocabulary and phrases, sentence level features or grammatical structures, and discourse features. This range of fields requires that students in social studies classes develop strategies to access and, more important, produce a diversity of genres. Figure 11.3 presents a list of different genres or types of tasks used routinely in social studies classrooms across the country. Each task demands that students produce different kinds of texts, each of which may have different organizational and linguistic features.

interviews	historical descriptions	timelines
photo essays	media analyses	map making
timeline captions	written debates	travelogues
editorials	multimedia presentations	simulations
biographies	scenarios	autobiographical accounts
journals	factual explanations	rebuttals
digital maps	panel simulations	electronic portfolios
reports	theses	summaries
charts and tables	online bulletin boards	synopses
historical arguments	essays	personal accounts
diagrams	geographical representations	graphics
visual analysis	explanations	blogs

Figure 11.3 History and geography presentation and writing genres.
As the figure indicates, there are a great variety of text types, all of which create many challenges for students. Due to the diversity of demands in each genre, Schleppegrell (2005) advocates for the explicit teaching of *how* to write in a variety of styles, including writing styles that ask students to define a problem, speculate about alternatives, and reformulate information to support a point. For example, teachers can help students understand the differences among historical account, historical explanation, and argument by providing students with a comparison of the different types, as illustrated in Figure 11.4. This kind of information not only helps students understand the goals and characteristics of each genre, it also provides a model for students to organize information when comparing two or more items.

Genre	**What It Does**	**Question It Answers**
Historical account	Establishes the sequence of events, with causal reasoning about why things happened	Why did it happen? *(analyze)*

Historical explanation	Defines and evaluates; explains and interprets the factors that led to, or the consequences of, historical events	What brought this about? *or* What was the result of this? *(explain and interpret)*
Historical argument	Promotes a position on or interpretation of events	What is your judgment of what happened? *(evaluate)*

Figure 11.4 Selected genres of history.
Source: Adapted from Schleppegrell (2005).
The final section of this chapter provides selected strategies that have proven useful for teaching specific aspects of social studies content and language.

Strategies for Teaching and Learning Social Studies

Szpara and Ahmad (2007) recommend three broad practices to support ELLs in high school social studies classrooms: (1) developing socially supportive classrooms, (2) explicit teaching of academic skills; and (3) reducing cognitive load and increasing accessibility of complex content knowledge. We build on these recommendations and extend them by providing very specific strategies to accomplish those goals. Many of these strategies have proven successful not only with high school students but with middle and elementary school students, too.

1. Developing socially supportive classrooms

This section suggests ways in which teachers can create a safe space where ELLs' languages, cultures, and experiences are recognized and affirmed (Nieto & Bode, 2018) and where ELLs feel comfortable taking the risks necessary to learn language and content.
Link the unfamiliar with the familiar by tapping students' previous knowledge. By using KWL charts (with the headings Know, Want to Know, and Learned; see chapter 3) or analogies, or discussing concepts and ideas relevant to students' lives, teachers can link students' experiential knowledge with curricular content. For example, a teacher might help ELLs understand the tensions between the American colonies and Great Britain by having students talk about the issues that arise when parents or other adults change the rules.
Use collaborative groups for tackling complex reading materials. By dividing the reading material and assigning each group a section, the reading becomes more manageable for students. Students' responsibilities include reading and understanding their assigned sections and teaching those sections to the rest of the class by using visuals, performances, or realia. In this way, students are not overwhelmed by lengthy or complex texts.
Level the field by making students the teachers and teachers the learners. ELLs have a wide array of experiences that make them experts in some aspects where native English speakers might have very little knowledge. Think about topics such as long-distance transportation, immigration, world geography, and currency exchange, among many others. Immigrant students may be very knowledgeable in these areas and can shine when they have opportunities to discuss these topics. Teachers can also become learners by attempting to learn students' native languages, geography, currency names and values, and other culture-specific information and customs.
Build on the "funds of knowledgeThe term *funds of knowledge* is used by researchers Luis Moll, Cathy Amanti, Deborah Neff, and Norma Gonzalez (2005) to refer to the historically accumulated and culturally developed bodies of knowledge and skills essential for household

or individual functioning and well-being." of students, families and communities. Throughout this book, we have discussed the importance of building on the knowledge and skills held by ELL students, their families, and the communities in which they reside (Moll, Amanti, Neff & Gonzalez, 2005; Johnson & Newcomer, 2018). When teachers get to know students and their families and communities, they can appreciate the richness of cultural and cognitive resources available to support and enhance meaningful learning. For example, in a fourth- and fifth-grade combined, sheltered classroom, students asked their parents and family to list all the countries they have visited or lived in and to list the languages they spoke. After combining all the information by placing thumb tacks on a world map and listing all the different languages, students and teacher decided to focus on the linguistic diversity that existed in their classroom and the surrounding community. Throughout the school year, the teacher and students invited community members to come and read a book in their native language. Students created an archive of oral and written language samples, explored language families, and found out about the countries in which those languages were spoken. The learning was tremendous both in terms of the appreciation and validation of the community's linguistic diversity and also in terms of students' better understanding of the world's linguistic diversity.

Promote an oral history approach. Oral history projects help students understand that history includes the collection and recording of personal memories as historical documentation. Complex issues can become more accessible when they are developed from students' background and experiences. In working with data obtained from oral histories, students are engaging in many of the historical thinking skills outlined in the U.S. history standards (Ernst-Slavit & Morrison, 2018). Some topics that lend themselves to this kind of approach include dependence and interdependence, the interaction of human beings and their environment, the causes and results of war, resource development and use, scarcity, acculturation, migration, and the impact of economic or technological changes on societies. When students work on oral histories, they enhance their understanding of the past and their own personal experiences. They also enhance their English language proficiency by using their oral skills as they interview and present information and their literacy skills by recording and transcribing oral interviews. Using an oral history approach also promotes parental involvement, native language use in meeting instructional goals, validation of the students' cultures and experiences, and enhancement of self-esteem (Ernst-Slavit & Morrison, 2018).

2. Explicit teaching of academic skills

In this section, we discuss the various ways in which teachers can help students learn the necessary thought processes and academic skills needed to access the texts, tasks, and teacher talk in the social studies classroom.

Offer explicit instruction of learning strategies. Several instructional approaches, such as Cognitive Academic Language Learning Approach (CALLA), Guided Language Acquisition Design (GLAD), Sheltered Instruction Observation Protocol (SIOP), and Specially Designed Academic Instruction of English (SDAIE), focus on explicit instruction of learning strategies for ELLs. For example, teachers should not assume that their students know how to skim or scan reading materials, use a planner, or break tasks into manageable sections. ELLs' prior schooling experiences may not have included these types of academic strategies.

Plan for academic classroom discussions. Because much of what transpires in social studies classrooms takes place via whole-class discussions, English language learners need to be involved and encouraged to practice extended academic talk with their peers and with the teacher. Through effective *academic classroom discussions* (Zwiers & Crawford, 2011), also called *instructional conversations* (Tharp & Gallimore, 1988), teachers can help students develop skills in answering both factual and higher-order questions and prompt students to elaborate on, justify, or evaluate their own (or a peer's)

comments (Ernst-Slavit & Pratt, 2017). Zwiers (2008) also suggests that classroom discussions:

- Allow for repetition of terms, phrases, and grammatical and thinking processes, which is conducive to the acquisition of those terms and processes.
- Encourage students to think quickly, respond, organize their thoughts into sentences, and ask for clarification.
- Allow students to observe how others think and use language to describe their thinking.

Encourage students to practice how to ask questions and request clarifications. One issue for ELLs is that they often do not know how to ask questions or how to request clarification. When teachers ask all the students in the class if they understand the task at hand or the requirements for the homework, it is not uncommon for ELLs to remain quiet or pretend to have no questions even though they might not have understood the directions. Modeling, role playing, planned interviews, a short handout containing four or five sentence or question starters, (leveled to the English proficiency level of your ELL students), and small-group discussions can provide ELLs with opportunities to practice what to say in interactive settings where participation is expected. Here are some examples of sentence and question starters:

- "I like how you . . . ."
- "I was unclear about . . . ."
- "What did . . . mean?"
- "Could you tell me more about . . . ?"

Use deliberate instruction about how to navigate textbooks. In Chapter 9, we discussed some of the problems that ELLs encounter with mathematics textbooks. Social studies textbooks can also pose challenges for language learners, partly because of the density of the material (that is, the high concentration of information per page). Helping students learn about the different features of a textbook provides many benefits, particularly because many ELLs come from cultures where reading is done from right to left, where the table of contents is in the back of the book, and where textbooks are primarily in black and white and contain few or no illustrations. Figure 11.5 lists many of the features that characterize textbooks in general. Reviewing these textbook features with students may help them become familiar with the text and learn some strategies, such as distinguishing between the main ideas and the supporting details in a portion of text.

Feature	Examples
Organization of text	Table of contents Page numbers. Glossary Index
Organization of ideas	Synopses Titles Conclusion Subheadings Headings
Graphical aids	Illustrations Photographs Maps Charts and tables Diagrams
Elaboration and emphasis	Captions Margin notes Bold, italicized, or highlighted text Footnotes
Extension of understanding	Questions. Links to digital media

Figure 11.5 Common text features.

Use graphic organizers. Graphic organizers offer students visual models for organizing, understanding, and applying information regarding terms and concepts and their relationships (Gallavan & Kotler, 2007). The popularity of graphic organizers has increased in recent years because they are useful in helping students understand complex material and manage data before, during, and after reading. Many books, materials, and websites provide a wide array of graphic organizers suitable for any purpose imaginable. This diversity of formats and models allows teachers to keep their students engaged. For examples of how to apply diverse graphic organizers in the social studies classrooms, see Gallavan and Kottler (2007).

3. Reducing cognitive load and increasing accessibility of complex content knowledge.

"Reducing cognitive load" does not mean simplifying the material or "dumbing down the curriculum." On the contrary, the goal is to encourage cognitive complexity by using linguistic simplicity. Suggestions for accomplishing this goal include: (1) locating materials in the first language to provide some background knowledge, (2) finding materials for ELLs on the same topic that are written using simpler language (e.g., some topics in fifth-grade textbooks are similar to those in eighth-grade and eleventh-grade textbooks but are written in much simpler language), and (3) providing outlines or PowerPoint presentations to further support students' understanding.

Use role play to make abstract concepts concrete. If ELLs are unfamiliar with the concept of *dilemma,* a role play may be created in which students in a grade level have to make a difficult decision. ELLs do not need to participate to benefit from this activity; observing other students or participating in writing the script can benefit them, too.

Preview reading assignments. As discussed in Chapter 9, students can preview reading assignments via a summary, outline, or PowerPoint presentation, or they can take the textbook home for review. This affords students excellent opportunities to become familiar with the topics and concepts to be discussed *before* they are introduced by the teacher.

Provide or encourage students to locate materials and information in their native language. Locating materials in the native language that relate to the unit or lesson to be discussed can help students have advance knowledge of the terms, concepts, and content objectives before the lesson is given. For example, when studying geography, students can search for atlases, books, and other materials at their school or local libraries. Many websites offer translations of topics, key vocabulary terms, and materials for social studies classes.

STOP AND THINK

When studying Martin Luther King, students can preview King's "I Have a Dream" speech in several languages (i.e., Arabic, French, German, Italian, Japanese, Korean, Marathi, Portuguese, and Russian) at Martin Luther King Online, at http://www.mlkonline.net/speeches.html. For a quality site about cross-cultural communication, see Culture Crossing at http://culturecrossing.net/index.php. This website offers a wealth of information about hundreds of countries, including basic information about communication styles and cultural norms. How might you use these two resources to support your ELLs?

Use cognates with your Spanish-speaking students. As noted in other chapters in this text, there are many cognates (words that are written similarly) in English and Spanish. Figure 11.6 lists examples of cognates pertaining to social studies, particularly history and geography. As you can see, your Spanish speakers may know more terminology than you think! It is important to realize, however, that

cognates are also found in Russian and several other languages, especially European languages.

History		Geography	
English	*Spanish*	*English*	*Spanish*
circumstance	circunstancia	continent	continente
civilization	civilización	globe	globo
clemency	clemencia	dessert	desierto
constitution	constitución	geography	geografía
democracy	democracia	gulfs	golfos
federal	federal	hemisphere	hemisferio
federation	federación	latitude	latitud
legislature	legislatura	longitude	longitud
public sector	sector público	nation	nación
presidency	presidencia	poles	polos
reform	reforma	oceans	oceános
social	social	peninsulas	peninsulas
science	ciencia	reserve	reserva

Figure 11.6 English–Spanish cognates in social studies

Conclusion

The field of social studies may present multiple challenges for English language learners because of the diversity of disciplines and topics that may be completely new for ELLs, the abstract nature of terms and concepts, the overreliance on textbook reading and teacher lecture, and the culture-specific background knowledge that is required to interpret and contextualize knowledge. When it comes to history, one of the main issues for ELLs is that students may not have the cumulative knowledge that U.S. students have attained through study in previous grade levels. Within social studies, however, a few areas of study, such as world geography, cultural geography, and physical geography, can provide ELLs with opportunities to build on what they know and teachers with opportunities to utilize a variety of instructional supports for enhancing the teaching and learning process. Careful planning and deliberate and explicit instruction regarding vocabulary, sentence level features, and discourse features that comprise the language of social studies benefits all students, but particularly ELLs.

Extensions

For Reflection

1. *Culturally unfamiliar topics.* As mentioned in Chapter 11, many ELLs may not be familiar with famous people in U.S. history (e.g., Franklin D. Roosevelt), with places and settings of historic importance (e.g., the Oregon Trail), and concepts and topics tied to democracy (civil rights). Think about other topics and concepts that might be unfamiliar to students who did not grow up in the United States. What strategies can you use to make these topics more accessible to your ELLs?
2. *Building on ELLs' experiences.* Earlier in the chapter, we discussed that world and physical

geography are excellent topics to build on ELLs' background knowledge and experiences. Think about other social studies topics that can be taught by building on what ELLs already know.

3. *Explore further*. For information about the role of talk and interaction in the social studies classrooms, read the following articles:

    - Ernst-Slavit, G., & Morrison, S.J. (2019). "Unless you were Native American…everybody came from another country"*:* Language and content learning in a grade 4 diverse classroom. *The Social Studies. http://dx.doi.org/10.1080/00377996.2018.1539700*
    - Gibbons, P. (2015). *Scaffolding language, scaffolding learning: Teaching English language learners in the mainstream classroom.* Portsmouth, NH: Heinemann. https://assets.pearsonschool.com/asset_mgr/current/201511/gibbonschapter.pdf
    - Mason, M., & Ernst-Slavit, G. (2010). Representations of Native Americans in elementary school social studies: A critical look at instructional language. *Multicultural Education, 18*(1), 10-17.

    For ideas about teaching language and content, including social studies, see these recent publications:
    Sharkey, J. (Ed.). (2018).*Engaging research: Transforming practices for the elementary school.* Alexandria, VA: TESOL Press.
    Lindahl, K., & Hansen-Thomas, H. (Eds.). (2018).*Engaging research: Transforming practices for the middle school classroom.* Alexandria, VA: TESOL Press.
    Stewart, M., & Hansen-Thomas, H. (Ed.). *(2019). Engaging research: Transforming practices for the high school classroom.Alexandria, VA: TESOL Press.*

For Action

1. *Adapting instruction*. Identify a chapter in a social studies textbook pertaining to your grade level or teaching context. List all the specific terms, concepts, and sentence level features you think will be difficult for ELLs, particularly those ELLs in the beginning stages of English language proficiency. Select a list of potential strategies for facilitating instruction of those difficult aspects. Make a plan about how you or the teacher can teach those specific aspects so that all students in the classroom can access and demonstrate knowledge of the chapter you have identified.
2. *Community cultural exploration*. Search for places in your community where ELLs and their families might spend time on evenings and weekends. For example, explore the possibility of attending a religious service in another language; visiting an ethnic market; attending a Sunday language school; or having a meal in a small, family-owned ethnic restaurant. During your visit, note the different resources (e.g., artifacts, communication, traditions) available in that location that could be used in your teaching context.

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12

Chapter 12: Putting It All Together

Key Issues

1. Every lesson must be accessible to all students.
2. Lessons that focus on content and language, connections to students, engaging tasks, and authentic assessments are more accessible than those that do not.
3. Every lesson can be improved in some way.

As you read the scenario below, think about how you might explain to your peers the important concepts in this book.

As first-year teacher Sidra Fitzgerald's group of diverse fifth-grade students left her classroom after their science period, Sandra's principal, Anita Alaniz, entered. Anita was amazed at how animatedly the ELLs were involved in discussions about the science topic with native-English-speaking students as they exited the classroom. Anita wanted to know what Sandra did to help her students form such bonds and to be excited about the difficult science concepts. Sidra explained how she helped all her students access the language and content of her curriculum by including the language, connections, focused task elements, and assessments that would help all students achieve. Anita wanted to hear more and assured Sidra that her colleagues would, too. They arranged to have Sidra available at the next teacher working lunch to demonstrate these concepts to her peers.

Background

As we noted in the preface, this book does not address all that teachers need to know about working with diverse learners; there are many great resources that fill this need. Rather, the focus of this text is on the specifics of lesson planning for classrooms with diverse learners. Previous chapters introduced components and ideas that are essential for meeting the needs of diverse learners. This chapter pulls together the information in this text by presenting several lessons and explaining how the pieces fit together to make each lesson more accessible. Because instructional contexts vary, the lessons are necessarily rather generic. Teachers can focus the connections, language objectives, tasks, and assessments in ways that serve the needs of their own classrooms as they implement lessons and experiment with the delivery of carefully planned instruction.

STOP AND THINK

What strategies and techniques would you use to implement carefully designed lessons? What do your choices depend on?

Understanding the Whole

This text's focus on language objectives, connections, engaging tasks, and authentic assessment does not mean that these are the only important parts of the lesson; it does mean that these lesson features need special attention in order to provide content and language access to students. Although lesson structure and content vary from one teacher or program to another, the inclusion of these components can make a big difference in every lesson.
A lesson component checklist was presented in Chapter 7. In this chapter, the checklist is used as a guide to construct, evaluate, and adapt lessons in order to provide a more coherent idea of the overall integration of these components.

Lesson Examples

Creating a New Lesson
The first example in this chapter demonstrates a process for creating a lesson based on the concepts presented in Figure 7.5. It proposes generic steps that illustrate a hypothetical teacher's planning process. A complete lesson is not reproduced here, but the general ideas should be clear.
Step 1: Find and Create the Learning Targets
The national standards note that students of all ages should understand "the people, events, problems, and ideas that were significant in creating the history of their state" (National Center for History in the Schools, 2005). Local standards based on this national standard require that each student:

- Creates and uses a research question to conduct research on an issue or event.
- Understands that there are multiple perspectives and interpretations of historical events.
- Understands the main ideas from an artifact, primary source, or secondary source in order to gather accurate information on an issue or historical event.

A required topic for fourth-graders is "Exploring the Pacific Northwest Prior to Statehood: Whitman Massacre." The teacher can create a variety of content objectives from these general standards and other requirements.(Adapted from a former Washington State OSPI resource). She decides that the students will be able to (SWBAT):

- Develop a question to guide an investigation of the Whitman massacre after looking at primary and secondary sources.
- Draw one or more conclusions or state a perspective about the question by referencing two or more sources.
- List two or more sources, including the title, author, type of source, and date of each source.

To meet these content objectives, students need a variety of language skills. For example, students need to understand vocabulary terms (among them *primary*, *secondary*, *source*, *massacre*); question formation; reading for information; and probably functions such as summarizing, paraphrasing, and writing in complete sentences. Knowing that the students understand how to create complete sentences and questions, the teacher may decide on language objectives such as these:

- SWBAT define and use vocabulary related to the assignment, including *primary*, *secondary*, *source*, and *massacre*.
- SWBAT demonstrate the ability to read for information.

Step 2: Make Initial Connections

In this step, the teacher can develop assessments (as discussed in Chapter 7 on backward design), or develop, in a more linear progression, the anticipatory set that includes connections to students' backgrounds and interests.

The teacher decides to introduce the topic by connecting it to previous lessons on Washington state history (academic connection) and to different views that students have of items and people in their lives, for example, the cafeteria's meatloaf, Britney Spears, other fifth-graders (personal connection). She then links the idea of different perspectives to history and to the idea of primary and secondary sources. In doing so, she also introduces some of the essential vocabulary and has students post it on the classroom word wall. She uses a questioning framework during this section of the lesson so that student input is central to setting up the lesson. She then presents students with the lesson objectives and answers any questions about the procedures of the lesson. To pique the students' interest, she reads the following quote that she has written on the board:

The Whitmans are regarded by some as pioneer heroes; others see them as white settlers who attempted to impose their religion on the Native Americans and otherwise unjustly intruded. ("Whitman massacre," Wikipedia, 2019)

She discusses with students the impact that these different perceptions might have had on the development of the state of Washington.

Step 3: Create Engaging Tasks

The teacher continues to use information that she has collected about and from students to plan the lesson tasks. She knows that some of her students like to work together, while others do better individually. She understands that there is a wide variety in their reading skills and interests and that engaging her learners means providing structured choices. Her task decisions are presented in Figure 12.1.

Process	
Instructional groupings	A choice: dyads or individuals.
Modes	Primary and secondary sources that the teacher has gathered include picture books, historical texts, the letters and journals of Narcissa Whitman, a filmstrip.
Task structure	Cooperative: to try to come to an agreement about the massacre.
Time and pacing	In addition to regular class time, students may use some of their sustained silent reading time to review resources. They may also work at home. Product development will be spread over a week, and those students who finish early can either assist others or work on an extension.
Scaffolding	Handout with models of a question, graphic organizer to create their conclusions, and citations for their resources.
Resources and texts	Resources at different levels. Students can check these or find their own.
Teacher's and students' roles	Teacher will help students evaluate their questions and direct them toward appropriate resources; students will choose their resources. Teacher will focus on language objectives with groups who she observes need help or with those groups who ask for it. Students will take the position of an observer, a news reporter, or an artist to create a document that presents their perspective of the Whitman massacre.
Procedural tools	Bookmarked websites will be available; students can use the library and ask question of the librarian; a film projector will be set up.

Product	
Audience and mode for product	The teacher will invite local community members (historical society) to assess the conclusions reached in each project. Students will have a choice of how to present their projects (in writing, orally, computer-based, etc.). Students will also get to comment on their peers' projects. As they listen, read, or view the product presentations, they will complete a worksheet on the information presented and the sources used. Theywill then refer to the resources for their homework.

Figure 12.1 Process and product for the lesson about the Whitman massacre.

As shown in the figure, the teacher has built in choices to engage students, provided students with reasons to listen (an authentic audience and a variety of products to present), and enough scaffolding that students can do the project on their own or receive help when needed. She has incorporated many modes for students to gain and to express knowledge, making those tasks easier.

Step 4: Assessment

The teacher will observe students throughout the lesson, checking informally for understanding as often as needed. In addition, the state school administration has provided a sample rubric to help the teacher measure the final product, and the teacher decides to use it with input from her students on adaptations. She will be sure that the rubric covers all of the objectives and that students are given separate grades for language use and content knowledge. She will also ask the audience to provide feedback as they participate in the presentations. To double-check the results, she will assign interactive homework in which students present perceptions from both sides of the Whitman massacre to a family member and record their family member's opinion. When they present these findings, the teacher will use a checklist to note students' language use and content outcomes.

This assessment plan provides students with practice and review and is ongoing throughout the lesson. Because the teacher discussed it with students at the beginning of the lesson and during its development, it is transparent. In addition, it is fair to ELLs and other students who may have barriers to linguistic expression of the content concepts.

STOP AND DO

Use the checklist in Figure 7.5 to evaluate the lesson on the Whitman massacre. What is missing? What was done well? Discuss your findings with the class.

Adapting Lessons

It is not always necessary or desirable to create lessons from scratch. In some instances, teachers are required to use lessons that come ready-made in their commercially prepared text packages. For others, many excellent sites on the Web offer standards-based lesson plans that are indexed according to grade level and content area. Any of these lessons can be adapted to better help students access the lesson content and language. This section presents three examples of lesson adaptations.

Adaptation 1

This first example needs little adaptation. The framework is different than the lesson presented above, but it contains the same basic components. The segments in bold point out where the teacher has included the essential components that are not already highlighted, and the adaptations are indicated by italics within parentheses.

Measuring Up

Adapted from a lesson by Katie Carbone http://illuminations.nctm.org/LessonDetail.aspx?ID=L509

Topic: Measurement Terms
Grades: 6–8
Learning Targets:
Standard:

- Understand both metric and customary systems of measurement.

Content objectives:

- SWBAT identify and classify terms related to measurement.
- SWBAT demonstrate the relationships between terms of measurement.

Language objectives:

- *SWBAT define the measurement terms.*
- *SWBAT write complete sentences about the measurement terms.*

Lesson Procedure:

- (*Present and discuss the objectives and assessment of the lesson*.)
- Have students brainstorm a list of all the terms they know that relate to measurement. (*Provide a model for them to get started*.) Record their answers in list form on a chart. Students may also write each term on a separate index card. (*Have students define the words on their index cards. Remind them and/or model how to write complete sentences. Also encourage students to draw pictures or add whatever other notes or ideas they need to help them identify the words.*)
- Organize the students in pairs and have them group and label the terms that the class has just brainstormed. (*Provide a spoken and written model of this activity.*) This helps students establish connections among the various categories of terms. Students can move the cards around on the chart paper as they group the terms. (*To make sure that all students have the opportunity to contribute, group the students based on your knowledge of their skills, abilities, etc.*)
- Have the class reach a consensus on the major categories in which the terms can be grouped and record these categories on a chart. Then ask students to group terms that have common attributes. Students may work in groups or individually to write brief sentences about what they know about the terms (*or categories*). (*Provide scaffolding in the form of a graphic organizer as needed*.)
- As time permits, have a class discussion about the terms the students just brainstormed. Access students' prior knowledge about the relationships between the terms. For example, how does a foot compare to a yard? **(academic connection)** Other questions for students include the following:
- How are the terms that you listed related to one another? What guidelines did you use to classify your terms?
- How and when have you used these types of measurement? **(personal/academic connection)**
- Were any of these terms of measurement new to you? If so, which ones? What did you learn in this lesson about appropriate uses of these terms?

Assessment
At this stage of the unit, students should be able to do the following (*and the teacher can observe throughout the lesson whether they seem to*):

- Understand major terms associated with measurement.
- Know how these terms of measurement relate to one another.
- Know how certain measurements are used in the real world.
- Were the students able to make connections between their own experiences and the words they generated in their brainstorming?

Homework
To add practice and additional assessment, the teacher can ask the students to list all the measurement terms that the family uses at home by brainstorming with family members and listing the results by room, family event (such as dinner or TV watching), or in some other way. Students who speak a language other than English at home can list terms in their first language to share with the class.

Evaluation of the Lesson
The teacher-author of this lesson notes that the opening activity "allows you to get an idea of what the students know before you delve further into the concepts of the unit. The activity gives you an opportunity to adjust the lesson based on students' strengths and weaknesses. It also gives students an idea of what topics will be covered in upcoming lessons." She adds that "this activity aids in planning and pacing the remainder of this unit. Keep the results from this activity to determine how students can add to or adjust the lists that they created. Students will need to refer again to their brainstormed lists in a future lesson."
Although she made connections at the end of the lesson, the teacher was working throughout the lesson on ideas that the students knew and that diverse students could contribute to. The variety of instructional groupings, the language practice provided in different parts of the task, and the multimodal nature of the activities help all students access the lesson. The small but important adaptations contribute even more to student opportunities for success.

>STOP AND DO

Use the checklist in Figure 7.5 to evaluate the lesson on measurement terms. What is missing? What was done well? Discuss your findings with the class.

Adaptation 2
This example presents a social studies lesson for kindergarten through Grade 3. It is adapted from the Council for Economic Education (http://www.econedlink.org/lessons/index.php?lesson=EM468&page=teacher). The lesson needs some adjustments to provide access to the content and language for diverse learners. Once again the format is different that the lesson above, but the same components should be present.

A Perfect Pet

Key Economic Concepts:

- Choice
- Decision making
- Economic wants
- Scarcity

Lesson Objectives
SWBAT:

- Identify economic wants of pet owners.
- Use an experience of scarcity when making choices.
- Explain why people have different economic wants.

Language Objectives:

- *Construct sentences with the formats "I want _____ because _____," and "I would _____ because _____."*
- *Use vocabulary related to the lesson such as economic want, scarcity, and so on.*

Introduction
(*Preview the American idea of "pet," helping students understand that not all cultures believe in keeping pets and that some have a distinct aversion to it. Discuss pets that students have or might want.) (Prepare students with vocabulary and main ideas from the story and focus on the reason they are reading it.)* Have students read (*and listen to*) the story, "The Perfect Pet," https://www.storyplace.org/story/perfect-pet). *(Discuss what students understood from the story, and review as necessary.)* Then discuss the following: "Do you have a dog or know someone else who does? **(personal connection)** If you do, you know that adopting a dog means more than just finding an animal that is cute and cuddly. You have to care for it. Pets depend on their owners to provide the goods and services that keep them healthy and happy. These things are called economic wants." (*Review the term and brainstorm with students what else may be an economic want. Have students write and illustrate the vocabulary in their vocabulary journals or a word wall. Make an* ***academic connection*** *to previous study and to the current lesson, introducing the objectives, tasks, and assessments.*)

Process

Activity 1
(*Brainstorm vocabulary and ideas that students think may be in the story, and then*) Read to OR have students read the flash activity "Economic Wants of Pet Owners" (http://www.econedlink.org/lessons/popup.php?lesson_number=468&&flash_name=em468_definitions.swf). Use the text and questions in the Think about It section of the student version as the basis for a discussion on economic wants and scarcity. "What things would you want for your pet?" *(Have students brainstorm with a partner before presenting to the class, thus providing extra support for students who may not understand the reading.)*
"Few pet owners have enough money to buy everything they want for their pets. This is called a scarcity problem. Scarcity forces people to make choices." (*Review the term and have students include it in their vocabulary notebooks or word wall.)*
"If you could buy just five of the many things at the pet store for your new dog, what would you buy?" *(Review with the students the grammatical construction used to answer this question and encourage them to use them in their reply.)*
NOTE TO TEACHER: If time allows, you may want to have students write a list or draw pictures of the

five items they would choose in response to this question (*using the constructions in the language objectives if possible)*. Have several students share their choices with classmates to help illustrate the point that students—and people in general—have different economic wants (*and to provide listening/speaking practice with the language objectives)*. Then ask (*students to share with their seat partners*):

- Which of your choices are the same as those of your classmates?
- Why do you think these choices are the same?
- Which of your choices are different?
- Why do you think these choices are different?

Activity 2

(Make a link between Activity 1 and Activity 2.) Have students imagine that the girl in the story "A Perfect Pet" picked a fish instead of a dog as her new pet. Direct students to look at the items she wants for her fish, as identified in the interactive activity (http://www.econedlink.org/lessons/popup.php?lesson_number=468&&flash_name=em468_dragndrop_v2_save.swf). Announce that, like most people, the little girl has a scarcity problem. She has only $5.00 to make her purchases. Direct students to choose the items they would purchase with the girl's $5.00. (*Have students discuss their choices with their seat partners, using the grammatical constructions in the language objectives.)*

Conclusion

Ask students to summarize the reasons people's choices are not always the same (*they can write, draw, or record their answers individually or in groups before sharing with the class*). Three factors to be identified include:

1. Our personal preferences—what we like.
2. Our values—what we think is important.
3. Our haves—what we already own or have access to.

Assessment Activity

Have students give reasons for their choices in Activity 2. For younger students, this may be an oral report. Older students can write sentences or paragraphs citing their choices and the reasons for their choices. *(During discussions, circulate and observe students' participation and whether they use the grammatical structures and vocabulary. For interactive homework practice and assessment, have the student explain the terms* economic want *and* scarcity *to a family member and have them come up with an example of each to share with the class using the language objectives.)*

Extension Activity

Have students try to unscramble the picture of a dog and dog house in the Pet Puzzle activity.

Lesson Evaluation

In its original form, this lesson included a variety of modes and a personal connection to American children, but it lacked scaffolding (particularly for language) and cultural sensitivity. In addition, very little explicit assessment was included. In the adapted version, many more instances of scaffolding have been added, language objectives are addressed throughout, and multiple forms of assessment have been added. The Extension Activity does not reinforce the lesson objectives; a more useful choice may be to have students explain to their parents what they want and why (pet-wise, or, to help them transfer this information to another topic, food-wise or around some other idea), and record their parents'

responses to share with the class.

STOP AND DO

Use the checklist in Figure 7.5 to evaluate the lesson on pets. What is still missing? What was done well? Discuss your findings with the class.

Adaptation 3

This final example lesson was submitted by Allen Payton, from Nickajack Elementary School in Smyrna, Georgia, to the lesson databank at PE Central (http://www.pecentral.org/lessonideas/ViewLesson.asp?ID=6598). Some teachers think that content areas such as art and physical education are easier for ELLs because they don't carry as much linguistic weight, but like science, math, and other content areas, these have their own jargon, genre, and cultural background that diverse students need support for. The terms and format of this lesson are different than those previously presented, but they demonstrate the same basic process of lesson planning.

Zone Ball

Purpose of Activity: The purpose of this activity is for students to learn the fundamental concepts of a zone defense in basketball. In doing so, students should also break the habit of everyone gravitating to the person holding the ball. On the offensive side, students will utilize non-bounce passing skills to share the ball successfully with teammates. Students will also learn how to move without having the ball in their hands.

(Language objective: SWBAT define the terms zone*,* pass*,* dribble*,* offense*,* rebound*, and* defense *and use them appropriately in discussion.)*

Prerequisites: Students should have had practice with passing, shooting, and defensive stance.

Suggested Grade Level: 7–12

Description of Idea:

(Connect the current lesson to previous lessons on basketball and to previous experiences that students have had playing basketball. Ask about problems that their teams have had and if they have any ideas for how to play better. Review the vocabulary, introducing the concept of a zone. Provide models and graphics as the vocabulary and concepts are discussed. Explain the objectives of the lesson and how students will be assessed.)

The teacher can set up different types of defenses such as a 2-1-2, a 3-2, or a 2-3 around the basketball goal using hula hoops. Five to six students will be selected to play defense. Those students will be restricted to either standing inside the hula hoop or have one foot in and one foot out (teacher's choice) until a turnover occurs or a basket is scored. In doing so, students will understand their area in the zone defense. *(Model this and other tasks several times so that students understand.)* The offense must chest-pass the ball to one another without letting the ball touch the ground; there is no dribbling in this activity. The student must freeze when he or she receives a pass and quickly decide who to pass to next. *(Provide practice for students who have not played basketball and use an understanding of student abilities to create teams.)* Each person on offense must pass the ball at least once before a shot can occur. Encourage students to move around as much as possible and find open space to handle the ball and receive passes. (*Ask students what they are supposed to do, encouraging them to use the focus vocabulary by asking questions [e.g., "Are you allowed to dribble during this activity?"]).*

Each time the defense tips a pass away and the ball touches the ground, a turnover occurs and players

switch: offense becomes defense, and vice versa. Each player gets a pass and can shoot; if the ball touches the ground, it is considered a turnover. However, if a student rebounds the ball, he or she can shoot again. *(Take breaks when necessary to review the rules of the activity and reiterate the objectives.)*

Assessment Ideas

If each student passes the ball successfully without the ball touching the ground before shooting, she or he has met the objective. If the defense stays within its hula hoop space and makes attempts to disrupt the offensive team's passing lanes, it has met the objective. *(The teacher can use observation throughout the lesson to determine if students understand the vocabulary and concepts. The teacher can use a checklist to note which students have mastered the concepts. In addition, students can take a multimedia quiz in which they match vocabulary terms with pictures or actions.)*

Lesson Evaluation

Even physical education lessons must have language objectives so that students understand the topic under discussion. For students new to basketball, the rules and ideas might seem very foreign and so need to be addressed with as much scaffolding as possible. Because sports activities often build on previous lessons, it is important to understand whether students have mastered the concepts before continuing with the next set of rules. This lesson shows that *all* teachers are language teachers to some extent.

STOP AND DO

Use the checklist in Figure 7.5 to evaluate the lesson on zone defense. What is still missing? What was done well? Discuss your findings with the class.

<h2Guidelines for Creating and Adapting Lessons

In addition to the suggestions throughout this text, two final guidelines can help teachers in their lesson planning. Figure 12.2 summarizes the following guidelines.

Guideline 1: Do Not Reinvent the Wheel

Sometimes teachers need to develop new lessons. In cases where lesson plans are not provided by administration or by commercially produced curricula, websites such the International Reading Association/National Council of Teachers of English *ReadWriteThink* (www.readwritethink.org) and Pinterest (pinterest.com) have excellent standards-based lessons in all content areas. Teachers can also share lessons with colleagues and work off the ideas of peers. Using and/or adapting premade lessons can save time and provide effective ideas, as long as the lessons are focused on the needs of the specific students who will participate in them.

Guideline 2: **Share**

Teachers have the universal goal of student achievement. To meet this goal, information about lessons that are effective and successful (or that are ineffective and useless) should be shared with colleagues. Teachers can post lessons and comments online, at sites such as Teacher.org's K-12 Lesson Plans site (https://www.teacher.org/lesson-plans/); use in-service time to present; or discuss lessons with peers at lunch, in meetings, or during less formal occasions. The chapter-opening scenario provided one such example.

Guideline	Explanation

Do not reinvent the wheel.	Find standards-based lessons from a variety of resources and adapt them for specific contexts.
Share.	Post lesson successes and failures to the Web or share with colleagues in other ways.

Conclusion

The focus of this chapter was bringing the suggestions and guidelines presented in the rest of this text together in the form of sample lesson plans. No lesson is perfect, and few work perfectly for every student in a class. However, the ideas and lesson components that are outlined in this book are key because they provide access for diverse students to the content and language of the lesson, providing them greater opportunity to achieve.

Extensions

For Reflection

1. *Review the text*. Review the chapters in this book. What did you learn that you did not previously know? What else do you need to know in order to serve diverse learners better? Where can you find the information that you need?
2. *Think about sharing*. How can you share some of the ideas you have learned from this text Who would benefit most from your sharing?

For Action

1. *Create a lesson*. Employing the guidelines, lists, and ideas most helpful to you and your current or future students, develop a lesson starting with the standards for your area. Include all the essential components.
2. *Adapt a lesson*. Find a lesson on a lesson plan website. Read the lesson carefully, moting where and how each important component is included (or left out). Revise the lesson, changing and adding as necessary to make the lesson more effective.
3. *Teach peers*. Plan some professional development based on the text and observe any changes that result.

References

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Wikipedia (2019, June 28). Whitman massacre. Available at https://en.wikipedia.org/wiki/Whitman_massacre

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Appendix

Appendices

Contents:

A. Answers to the Common Teacher Behaviors Questions
B. Making Your First Home Visit: A Guide for Classroom Teachers
C. A reproducible copy of Figure 7.7.
D. A copy of Figure 7.7 without the criteria inserted in order to support the gradual release of responsibility in lesson planning for teachers.

Appendix A. Answers to the Common Teacher Behaviors Questions

Behavior	Might be misunderstood	Cultural group(s) that might misunderstand
Sitting with your shoe pointed or shoe sole turned toward your students.	X	Offensive to Arab/Muslim students.
Making the okay sign with your thumb and first finger	X	Brazilians, Germans, Russians, and Greeks may consider this vulgar, and French students may think you are telling them "nothing."
Telling your class to take a bathroom break	X	Any ELL may have trouble with this because they understand that you are telling them to bathe—use the word toilet if that's what you mean.
Shaking hands with a parent	X	In many Arab and/or Muslim cultures, it is inappropriate to touch people of the opposite gender. Check if it is okay before you extend your hand and obligate the parent to respond.
Waving with your whole hand	X	In many cultures, this means no.
Touching a student on the head, giving a high-five, or patting a student on the back	X	Indian, Japanese, and other students; particulary Thai for head patting.

Wave a student over by using one finger.	X	Most Asian students consider this rude and understand that you are angry.
Taking a student's photograph	X	Many native cultures around the world believe that this steals the subject's soul.

Sources: Axtell, R. (Ed.) (1993). *Do's and Taboos Around the World*. New York: John Wiley & Sons; Teacher Taboos, EnglishClub.com, available at http://www.englishclub.com/teaching-tips/teacher-taboos.htm

Appendix B.
Making Your First Home Visit:
A Guide for Classroom Teachers

A home visit program can show that the teachers, principal, and school staff are willing to "go more than halfway" to involve all parents in their children's education. Home visits help teachers demonstrate their interest in students' families and understand their students better by seeing them in their home environment.

These visits should not replace parent-teacher conferences or be used to discuss children's progress. When done early, before any school problems can arise, they avoid putting any parents on the defensive and signal that teachers are eager to work with all parents. Teachers who have made home visits say that they build stronger relationships with parents and their children, and improve attendance and achievement.

Planning:

1. If possible, find someone who speaks the home language to schedule the visit. You can also talk with an older sibling who is fairly proficient in English or a district translator or home outreach liaison.
2. You can follow up with a brief written note, with the exact date and time, preferably written in the family language.
3. Schedule a home visit a week to 10 days in advance. Be sure to communicate the purpose of your visit and approximately how long the visit will last (30 to 45 minutes).
4. Ask another adult to accompany you to the first home visit, preferably someone who speaks the language of the family or a teacher of a sibling.
5. Learn a few words of the first language, even if it's only hello or thank you. This shows you care enough to make the effort and may help break the ice.
6. Learn the names of family members.
7. Be on time. While some cultures do not mind a late arrival, this is not true for all.
8. Some parents may be familiar and comfortable with home visits, having experienced them in their countries of origin. Some may not be familiar or comfortable with the idea.
9. If parents have difficulty scheduling a time to meet with you, be aware that some parents work two or more jobs in order to provide for their families.
10. Begin making home visits prior to the start date of school. This may help to lower the anxiety level of your ELL students and will help you become aware of your students' English language proficiency levels.
11. Dress appropriately.

12. To gain the most benefit from a family visit experience, consider the following:
13. Concerning the children, parents and family members are experts.
14. Personal sharing may be appropriate at times.
15. Observing and listening can lead to insights, as well as asking and answering questions.

Arrival:

1. Be aware of (look for) cultural expectations in the home. For example, in some cultures it is expected that people entering the home remove their shoes and walk about the home in socks or in special footwear provided by the host.
2. If you're nervous, remember: The family you are visiting is also probably nervous.
3. Remember that in many cultures, teachers are more highly respected than they are in the United States. It is a significant event to host a teacher at home.
4. Don't be afraid to look foolish or silly while trying to bridge the language gap. Try drawing pictures or acting out what you mean.
5. Make eye contact as appropriate for the cultural background of the host family.
6. Do not take notes or record your conversation with the family. This can be perceived as rude or threatening.
7. Conversation starters: (a) How are schools in _____ (country of origin)? (b) Please tell me about _____ (siblings or other family members). Can you talk about your home town? While you want to do more listening than talking, you can also talk about how school works in the United States, your classrooms curriculum, or teacher expectations, among other topics.
8. Do not talk about negative topics.
9. Understand that some parts of the home are "public spaces," while others may be private. After all, do you want strangers wandering around your bedroom?
10. Don't impose your own values on what you see in the home. Try to view the host home through the lens of those living there. What do they see? How do they view their home?

Departure:

1. Lay the groundwork for future visits and/or other types of contact.
2. Provide information so that parents can contact you, if desired.

Post Visit:

1. Take a few moments *away* from the student's home to write down a quick summary of the visit.

Prepared by Gisela Ernst-Slavit & Michele Mason and used with permission.

Appendix C. A Reproducible Copy of Figure 7.7.

MY LESSON TOPIC: _____

Lesson Component	Criteria	Element	Implementation

Objectives	• Tied to standards • Tied to content objectives • Based on student needs • Measurable • Presented to students	Language	
		Content	
Connections	• Based on student interests, needs, backgrounds, abilities • Tie current topic and tasks to past lessons • Tie current topic to personal lives • Tie lesson tasks to personal lives • Assessed for relevancy, accuracy with students	Personal	
		Academic	
		Instructional	
Tasks	• Address both content and language objectives • Engaging • Authentic • Relevant • Multimodal • Explicit and implicit • Break language down as necessary • Culturally responsive • Learner-centered and/or produced • Focus on process and product • Provide students with reasons to listen	Instructional groupings	
		Audience	
		Modes	
		Task structure	
		Time and pacing	
		Scaffolding	
		Resources/texts	
		Teacher/student roles	
		Procedural tools	
Assessment	• Ongoing • Authentic • Multiple measures • Provides practice and review • Transparent to all participants • Relevant, engaging, and interactive	Traditional	
		Alternative	
		Homework	

Appendix D. A Reproducible Copy of Figure 7.7 without Criteria

My Lesson Topic: _____

Lesson Component	Element	Implementation
Objectives	Language	
	Content	
Connections	Personal	
	Academic	
	Instructional	

Tasks	Instructional groupings	
	Audience	
	Modes	
	Task structure	
	Time and pacing	
	Scaffolding	
	Resources/texts	
	Teacher/student roles	
	Procedural tools	
Assessment	Traditional	
	Alternative	
	Homework	