Making Content Comprehensible for Multilingual Learners: The SIOP® Model

sixth edition

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CHAPTER 2

Lesson Preparation

CONTENT OBJECTIVES

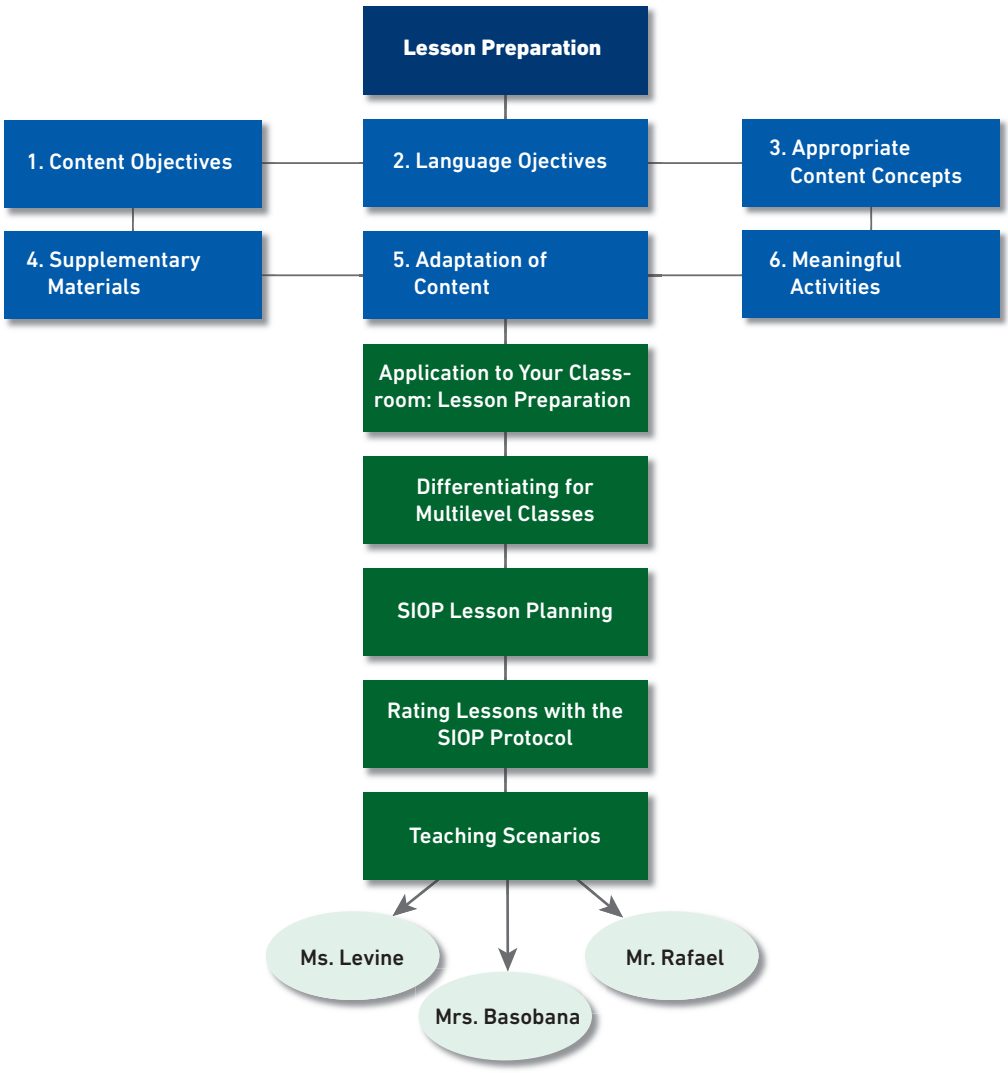
This chapter will help you to . . .

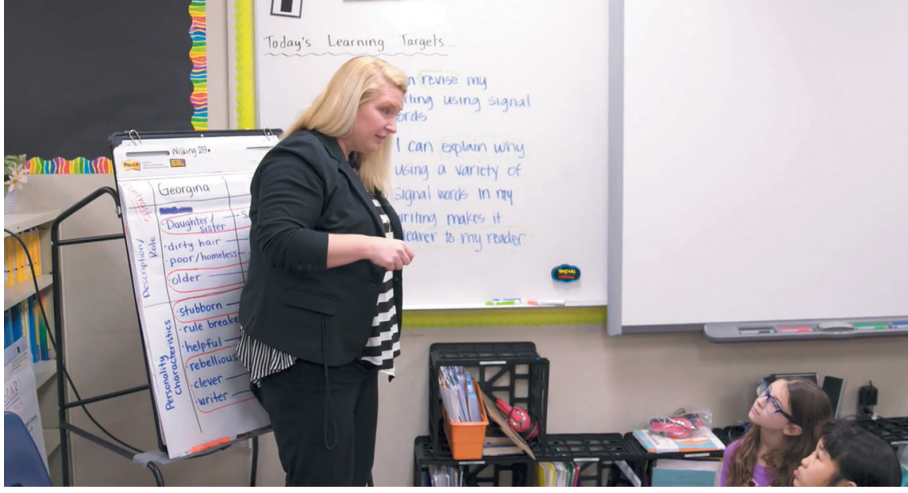
- Identify content objectives for multilingual learners that align to state, local, or national standards.
- Incorporate supplementary materials suitable for multilingual learners into a lesson plan.
- Apply knowledge of students' educational background and skills to adapt content to their language proficiency and cognitive levels.

LANGUAGE OBJECTIVES

This chapter will help you to . . .

- Generate language targets for multilingual learners that align to standards and address how language is used in academic settings.
- Discuss advantages of including both language and content objectives in a lesson and sharing the objectives with students.
- Explain the importance of meaningful academic activities for multilingual learners.
- As part of a lesson plan, write content and language objectives linked to standards and the lesson topic.





In this chapter, and in subsequent chapters, we explain each SIOP Model component and its features. Each chapter begins with an explanation of the component, offers classroom activities, and then describes how three teachers approach the same lesson. The lesson scenarios throughout the book are about varied topics and represent different grade levels.

This chapter introduces the first component of the SIOP Model, Lesson Preparation. We present background information and the rationale for each of the six features in this component and list some ideas for applying the features and differentiating instruction in multilevel classes. The chapter concludes with teaching scenarios that illustrate how three Grade 4 teachers, who each have classes with students learning English as a new language, implement this component in their lessons. As you read the scenarios, we encourage you to check your understanding of the SIOP features explained in the chapter by rating the scenario lessons according to best practice. Reflect on how effectively each lesson meets the needs of multilingual learners in relation to each feature. Look for evidence in the text. At the conclusion of the teaching scenarios, we discuss our assessment of the teachers' efforts to provide SIOP instruction, and we invite you to compare your appraisal to ours. ■

■ Background

Lesson planning is critical to both student and teacher success. For maximum learning to occur, planning must produce lessons that target specific learning goals, enable students to make connections between their own knowledge and experiences and the new information being taught, give students practice using and applying the new information, and assess student learning to determine whether to move on or reteach the material. With careful planning, we make learning meaningful and relevant by including appropriate motivating materials and activities that foster real-life application of concepts studied.

We have learned that if multilingual students' exposure to content concepts is limited by vocabulary-controlled materials or watered-down curricula, the amount of information they learn over time is considerably less than that of their peers who use grade-level texts and curricula. The result is that the learning gap between native English speakers and multilingual learners widens instead of closes, and eventually it becomes nearly impossible for multilingual learners to catch up

(Carnoy & Garcia, 2017; Gándara & Rumberger, 2008). However, multilingual learners who have learned English and exited ELD programs have, over time, narrowed the performance gap on national math and reading exams (Kieffer & Thompson, 2018). Therefore, it is imperative that we plan lessons that promote the acquisition of academic English and include age-appropriate content and materials. Our lessons, however, must provide appropriate scaffolds so our students can meet the rigor of state standards over time and be prepared for college and careers.

This component, Lesson Preparation, is very important to the SIOP Model and provides the basis for successful lessons. If properly prepared, a lesson will include most of the SIOP features in advance. It is then up to you, the teacher, and your class to accomplish the learning goals and tasks as the lesson unfolds. Another component, Lesson Delivery, helps you monitor the implementation of the lesson. As we explained in Chapter 1, we know from 20+ years of research that SIOP lessons enhance student language development and content knowledge. So, to guide your SIOP lesson planning, let's explore each feature in the SIOP component of Lesson Preparation.

> "Sheltered instruction (SIOP) has shifted my practice from delivering content to facilitating experiences where students process the content by using language."
>
> Tan Huynh, Secondary School Social Studies Teacher, Thailand

You will begin with the end in mind by setting your goals for student learning through content and language objectives. These objectives should evolve from the lesson topic and be part of the instructional plan. After you write content and language objectives, post them, and discuss them with the students at the start of class, you must, at some point in the lesson, provide explicit instruction on these objectives. We know from research that explicit instruction speeds up language development (TESOL, 2018). Your multilingual learners then need practice opportunities aligned to the objectives, and, at the close of the lesson, they should be assessed on their progress toward meeting those objectives. The lesson cycle is complete when you reflect on your instruction and student progress to inform the planning of your next lesson.

SIOP®

SIOP® FEATURE 1:

Content Objectives Clearly Defined, Displayed, and Reviewed with Students

Content objectives identify what students should know and be able to do as a result of instruction on a subject area topic. They usually derive from state standards. Teachers can often write them based on learning targets found in curricular frameworks of the subject areas. In effective SIOP lessons, content objectives are clear and measurable. They must guide the teaching and learning process, and they should be shared with students at or near the beginning of a lesson.

Here are some sample content objectives from different subject areas:

- Students will be able to solve multiplication problems.
- Students will use map skills to plot the route of a product or good from harvesting or manufacturing to market.
- Students will collect and organize data during a science experiment.
- Students will be able to cite evidence to show how a character advanced a story plot.

Additional examples are found in each chapter of this book.

Sources of Content Objectives. Teachers have several sources to help them identify content objectives.

- *State subject area standards.* State standards are the main source of content objectives for teachers. Some districts have local standards or rely on national standards, particularly for subjects that may not have a state standard equivalent (e.g., history, technology).
- *State or district-level curriculum frameworks.* Many states and districts have translated the standards into curriculum frameworks. These break down the standards into unit or lesson topics and these can be useful guides for content objectives.
- *Course textbooks and teacher guides.* Many textbooks and teacher guides identify learning goals for units of study.
- *Colleagues.* Some subjects lack state standards, so teacher collaboration is critical for setting objectives to ensure consistent learning goals. Also, ELD teachers sometimes seek assistance in identifying appropriate content objectives to add to their content-based language lessons. They may feel unprepared for in-depth instruction on a content topic, they may not know the key concepts that should be taught, and they may not know what types of activities usually support the topic. In many schools, ELD teachers serve students from several grade levels at the same time. For these reasons, we strongly advocate that content and language teachers collaborate closely as they prepare lessons to help their students meet content and language goals. (Chapter 11 discusses teacher collaboration.)

Identifying and Writing Content Objectives. SIOP teachers plan objectives that support content standards and learning outcomes, but if the objectives are not denoted in the curriculum materials, teachers must deconstruct the standards to determine what the intention for student learning is, such as knowledge of a concept, a skill to master, a reasoning process to learn and apply, or a subject-specific product to produce. Then, within a given unit of study, teachers identify the sequence of learning objectives that lead up to meeting or making progress toward the full standard and build lessons around these objectives (Chappuis, Commodore, & Stiggins, 2017; Tobiason, Chang, Heritage, Jones, & Herman, 2014). When they write the content objective statements for each lesson, they must consider the proficiency levels of the multilingual students to ensure that they use language the students will understand.

When writing content objectives for your lessons, keep the following guidelines in mind to support your multilingual learners:

- Write lesson-level objectives (something that can be taught and learned in one or two days). State standards are frequently complex and not written in a manner that is accessible to multilingual learners or students in primary grades. Often standards are too generic or broad—such as "The student will collect and analyze data, determine the equation of the curve of best fit in order to make predictions, and solve practical problems, using mathematical models of linear and quadratic functions." (Virginia Dept. of Education, 2016)—to be useful as a single lesson's learning goal.

- If you are an ELD teacher, write content objectives related to the lessons that multilingual learners receive in subject-area classes to support their academic language needs. You might draw from one content area, focus on one subject per quarter, or concentrate on academic tasks of those subjects (e.g., extracting information from text to create a timeline, writing a descriptive essay, explaining steps in an experiment).
- State the objectives in terms of student learning, not as an agenda item or an activity. See Figure 2.1 for several ways that teachers in our research studies have stated their objectives. You will note that all focus on the student.
- Use active verbs so objectives are observable and measurable.
- Use student-friendly language that suits the age and proficiency levels in the class. For example, some kindergarten and first-grade teachers post key words for the objectives rather than complete sentences or add illustrations to the objective statements.
- Limit the number of content objectives to only one or two per lesson to reduce the complexity of the learning task and to ensure that instruction can meet the objectives.
- Share objectives with your students, orally and in writing, for every lesson. In this way, students know what they are supposed to learn each day and they can share the responsibility for learning.
- Provide explicit instruction and practice opportunities related to each objective in your lesson.
- Review the objectives at the end of the lesson to determine if your multilingual learners have mastered them. Use that informal assessment when deciding whether to move to the next topic or spend some time reteaching.

Presenting Objectives to Students. We know from our research studies and professional development experiences that teachers need to get into the routine of presenting objectives to learners each day. Rest assured, the effort is worth it! Teachers consistently report the value of displaying and clearly stating content objectives for all students. As one teacher said, "I just wanted to say that defining the objectives each day definitely brings more focus to my planning and thinking, and it helps bring order to my classroom procedures." Another teacher remarked, "It's our GPS for the lesson." Students can take some ownership for their learning when they know the goal of the lesson.

FIGURE 2.1 How to Start an Objective

Students will be able to (SWBAT) _____

Students will (SW) _____

We will _____

Today I will _____

I can _____

Our job is to _____

Some content teachers have asked how to present objectives for inquiry lessons, worried that the objective might "give away" the discovery moment. We have two suggestions. One is to write the objective in a more general way. For example, "Students will investigate what factors influence plant growth" is better with an inquiry lesson than "Students will investigate the effect of water on plant growth." The other is to present the objectives after students have completed an introductory activity or experiment at the start of the lesson to set up the inquiry frame of mind.

Some teachers also ask how to present objectives to newcomers with little English proficiency or students with interrupted educational backgrounds. In that case, you may have to build background first. You can write a content objective like "Identify parts of a plant and their functions." When you explain it, elaborate and use instructional supports: "*Today you will learn about parts of a plant* (showing a picture or real plant). *You will be able to identify the parts* (point to the different parts) *and tell what the parts do* (e.g., *Leaves make food for the plant.*)." *Plant, part,* and *function* would be vocabulary terms to teach in the lesson.

The bottom line for multilingual learners is that content objectives need to be written in terms of what students will learn or do; they should be stated simply, orally and in writing, use active verbs, be tied to specific grade-level content standards, and shared with the students every day.

SIOP®

SIOP® FEATURE 2:

Language Objectives Clearly Defined, Displayed, and Reviewed with Students

Language objectives are what students need to learn about English in order to

- learn, express, practice, and apply new information,
- demonstrate knowledge, and
- perform academic tasks.

Language objectives direct the academic language learning in a given lesson. They typically derive from state English language proficiency or English language arts standards. For any lesson, multiple language objectives are possible depending on the academic language needs of the multilingual students: objectives related to vocabulary, reading and writing skills, oral language practice, and more. Teachers select from the possibilities for each lesson to determine the one or two that would best help students understand and work with the new material and advance their language proficiency. Across lessons in a unit, however, SIOP teachers reliably present a variety of language objectives.

Here are some sample language objectives:

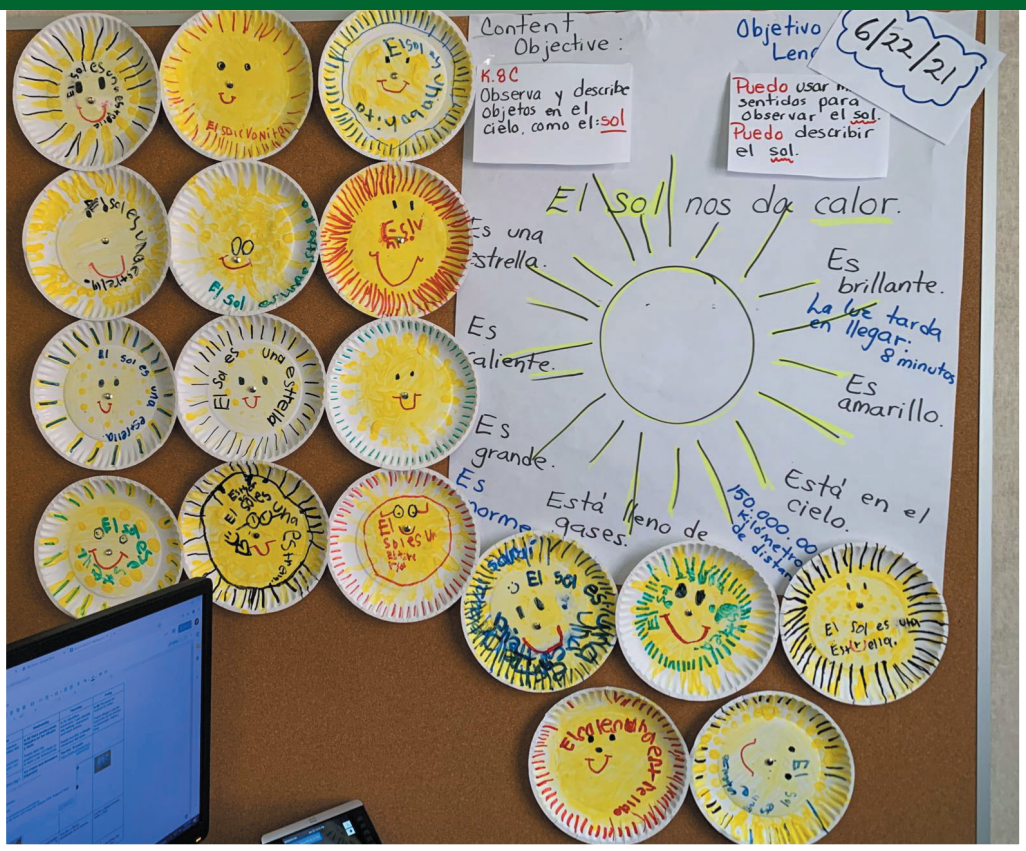
- Students will be able to write a conclusion to a science report.
- Students will use key vocabulary when summarizing a text.
- Students will be able to rehearse a speech with a partner.
- Students will explain a solution to a math problem orally.

Additional examples are found in each chapter of this book.

ARTIFACT 2.1 Bilingual Summer School Class Objectives

Content and language objectives and student work from Ms. Osorio's bilingual/ESL summer school Kindergarten classroom in Tyler ISD, Tyler, Texas.

Ana Segulin permission



The guidelines we discussed earlier for content objectives apply to planning language objectives too:

- Language objectives should be written clearly and simply with active verbs, and students should be informed of them in each lesson, both orally and in writing.
- The objectives should be limited in number for a given lesson and reviewed at the end.
- They should be drawn from the state English language proficiency standards and English language arts standards.
- The objectives should represent an element of academic language that students need to learn or master.
- Teachers should provide explicit instruction on the objectives, create opportunities for students to practice, and assess their progress toward meeting them.

Effective SIOP teachers must incorporate language objectives, in addition to content ones, into their lesson plans to support multilingual learners' academic language development. In fact, academic language is a second language for all learners, so both types of objectives are equally essential in SIOP lessons. Teachers with newcomer students may have to build social and classroom-related language skills too.

Although incorporating language objectives in all content lessons is a hallmark of the SIOP Model, we recognize that some classroom and content area teachers are not used to thinking about the language demands of the subjects they teach, apart from language arts specialists. Yet every teacher uses language as a tool to communicate knowledge to students, to have students complete assignments, and to determine whether students are learning.

If you are a classroom or content area teacher, it is not sufficient to only have deep knowledge of topics in your subject area. Rather, to be effective, you also need to know how language is used in the subject area in order to convey information (whether orally or in text) and to apply that information (through class reading, writing, and discussion activities). In addition, you need to know your students' English proficiency levels so the language objectives can be targeted to what students need to learn about the academic language of history, science, mathematics, or other subjects, yet not be at a level too high for their current understanding. Every SIOP teacher, therefore, is a teacher of language and content.

Because it may be a new way of thinking for you, here are key points from research on second language acquisition to keep in mind when developing lessons:

- *Remember that acquiring a second language is a years-long process.* Just as a baby takes years to learn its first language, our students learning English as a new language need time to become familiar with English sounds and words, sentence formations, discourse styles, and more. They need to practice using the language and to try out new formulations to construct meaning on their own, even if they make mistakes along the way. When students master a new language it means they can use their language knowledge and skills fluently, accurately, automatically, and creatively; this process can take thousands of hours to achieve. (See Gass, Behney, & Plonsky, 2020; NASEM, 2017; and TESOL, 2018 for more information.)
- *Plan language objectives to reflect a progression of learning about an aspect of language, from process-oriented to production-oriented.* In your lessons, give your multilingual learners a chance to explore and then practice before demonstrating mastery of an objective. The following objectives from a SIOP language arts class show the progression of objectives that might be taught over several days:

  Students will be able to

  Day 1. Recognize figurative language and its function in text. (Process)

  Day 2. Discuss the types of figurative language such as similes and metaphors. (Process)

  Day 3. Write examples for types of figurative language. (Production)

  Day 4. Write a character description that incorporates figurative language. (Production)

  For the first lesson (Day 1), students learn to recognize figurative language in text, focusing on descriptive terms and key words *like* and *as*, and discuss the purpose of figurative language. After that (Day 2), they might explore types

(e.g., similes and metaphors) and discuss reasons why authors use figurative language. On Day 3 they generate their own examples in decontextualized sentences. They then write for an authentic purpose, like a book or movie review, drafting a paragraph that describes a character using figurative language on Day 4.

- *Teach all four language skills from the start.* Multilingual learners tend to develop receptive skills (listening and reading) faster than productive skills (speaking and writing), but all the skills should be worked on in an integrated manner. Students don't have to learn to speak, for instance, before they learn to read and write. Furthermore, the skills reinforce one another to develop academic English. Reading a story can be a model for writing a text or a way to deepen the meaning of vocabulary. Planned speaking practice with language frames (e.g., Our data showed . . . , The purpose of _____ was . . .) can aid in reading comprehension when a similar phrase is encountered. (See August & Shanahan, 2006; TESOL, 2018; and Zwiers & Soto, 2017 for more information.)
- *Focus on function* and *form to move students to advanced proficiency levels of academic English.* ELD and English language arts teachers play important roles in developing students' academic language skills, but teachers should not let students coast in class during the other subjects. If your multilingual learners are ready to produce more sophisticated language (e.g., during an oral presentation, in science lab report), challenge them to do so. Skillful teachers take advantage of oral interaction, for instance, to move their learners from informal, everyday explanations of a content topic (e.g., a scientific process) to a more academic register of the formal written and spoken code. When SIOP teachers plan language objectives around specialized grammar and lexical forms related to their subject area, they set their students up for success because multilingual learners will encounter more rigorous text and be expected to use more complex language as they progress in their proficiency levels. (See Balconi & Spitzman, 2021; Gibbons, 2015; and Turkan, de Oliveira, Lee, & Phelps, 2014 for more information.)
- *Translanguaging can support language development and content learning.* Translanguaging is a process by which an individual makes a strategic choice to use one language or another at a particular moment in oral or written discourse for a communicative purpose. Bilingual individuals periodically employ translanguaging in a dynamic way when they interact with others. They might, for example, choose a word from one language instead of another because of its nuanced meaning, or ask an important question in the language they are most proficient in to ensure clarity. In the classroom, students who are using English to convey information may switch to another language to fill in a gap in their vocabulary knowledge. Being able to translanguage is a resource that multilingual learners can call on to participate in class, gain knowledge, or work on lesson tasks. It gives the students agency and offers flexibility.

  Research on translanguaging has revealed that multilingual learners have one complex linguistic system that can include two or more "named" languages, like English and Spanish. The borders between these languages are porous, and certain knowledge, skills, and strategies such as phonological awareness,

knowledge of print, listening and reading comprehension skills, and narrative skills can be shared across the languages or can transfer from one to another. Effective SIOP teachers encourage students to use all their linguistic resources as they participate in class, make sense of new information, and apply knowledge, knowing that the ultimate outcome is proficiency in academic English. (See Ebe, Soto, Freeman, & Freeman, 2021; García, Ibarra, Johnson, & Seltzer, 2017; NASEM, 2017; Paterson, 2021; and Seilstad & Kim, 2020 for more information.)

- *Give feedback on students' language use.* In order to acquire a new language, students need feedback to determine if what they produce in English is comprehensible and if their interpretations of what they read or heard are correct. The tasks you assign and the feedback you give can be modulated by the students' proficiency levels. For example, when asking a question, allow for approximations and multiple-word responses rather than complete sentences from those at early stages of English development, but expect learners with greater proficiency to respond in complete sentences. This practice develops language skills because it requires multilingual learners to move beyond what may be their comfort zone in using English. (See Lyster & Saito, 2010 and Nassaji & Kartchava, 2017 for more information.)
- *Assess the language objectives to determine if students are making progress toward mastery.* It is important to find out if students met the language goals in your lesson. This knowledge can help you decide if students need more practice or feedback, and if you need to reteach or can move forward. One way to do so is by monitoring how students are using English in the lesson tasks and activities. Another way is to use a group-response technique at the end of a lesson (e.g., thumbs-up/thumbs-down to questions posed) or an exit ticket where students write to a prompt that demonstrates their learning. You will find this topic discussed in more detail in Chapter 9.

Sources of Language Objectives. As you plan, you may want to explore different sources of language objectives.

- *State English language proficiency (ELP) standards and curricular frameworks.* By using these resources, your objectives will be aligned to the language goals your state has set for multilingual learners.
- *WIDA Can-Do descriptors.* The WIDA consortium has compiled a list of "Can Do" descriptors that can help teachers identify the kind of language tasks students should be able to perform according to five differing levels of English proficiency and different grade-level clusters. (To view them, search for "Can Do Descriptors" at www.wida.wisc.edu.)
- *State English language arts standards and curricular frameworks.* It is important that multilingual learners achieve the language arts standards, so you can draw ideas from these documents for objectives. Note that some states also have other content area standards that include a strand focused on communication and can provide ideas as well.

- *Colleagues.* One critically important source for successful content and language integration is your colleagues.
  - If you are a content or grade-level classroom teacher, pair up with an ELD or bilingual teacher. Tap that teacher's expertise for potential language objectives and knowledge of the multilingual learners' academic language needs.
  - If you are an ELD or reading teacher, you have a plethora of language objectives at your disposal. Partner with one or more content teachers to identify content objectives and lesson tasks that the multilingual learners need assistance with and align those content goals to your language objectives. You may want to focus on thematic units to cover a variety of content topics or focus on one subject area per quarter. (See Chapter 11 for an example of teacher collaboration.)
- *Course textbooks, teacher guides, and other instructional materials.* Review instructional materials to be used in class to determine if there are language skills and academic vocabulary that the multilingual learners need to develop in order to comprehend the information or perform the assignments. Also check out the teacher guides because publishers have recognized the need for more attention to academic language and have incorporated some explicit suggestions that can lead to language objectives.

Identifying and Writing Language Objectives. As you begin to craft language objectives, the possibilities abound because our multilingual students have so much to learn about academic English. In some lessons, language objectives may focus on developing students' vocabulary, introducing new words and concepts, or teaching word structure to help multilingual learners discern the meaning of new words. Other lessons may lend themselves to practice with reading comprehension skills or the writing process. Some objectives will highlight functional language use, such as how to request information, justify opinions, negotiate meaning, provide detailed explanations, and so forth. Higher-order thinking skills, such as articulating predictions or hypotheses, stating conclusions, summarizing information, and analyzing an author's purpose are potential language objectives, too. Sometimes specific grammar points can be taught as well; for example, learning about different verb tenses that indicate sequence or continuity in the past when studying historical periods.

Our goal is to help you select and write language objectives that address the type of academic language your multilingual learners need in order to understand the content and perform the activities in the lesson. But it is important to make clear that activities are not language objectives, although they may provide language practice. For example, "Students will complete a Venn diagram" is not a language objective. A Venn diagram is a tool that can help a student demonstrate meeting an objective such as "Students will read a text to find and record similarities and differences between two animals." If they complete the graphic organizer after reading, the teacher can see whether they can read for a purpose and find details. The Venn diagram might in fact be used later as a resource to support another language objective such as "Students will use comparative language to discuss similarities and differences with a partner," but while it has captured information and is used to talk about that information, it is not the learning objective.

Remember: Writing an agenda or list of activities on the board is *not* the same as writing the content and language objectives!

Categories of Language Objectives. In each lesson you want to target an aspect of language to teach your learners. That target is the core of your language objective. We suggest you draw from the following four categories to identify language targets and generate language objectives.

- **Academic Vocabulary.** You may focus an objective on the key words needed to discuss, read, or write about the topic of the lesson (e.g., names of important people, places, and events; technical terms; scientific and mathematical processes; social studies or health concepts). In doing so, you may select vocabulary from three subcategories, which are described in more detail in Chapter 3.
  - *Content vocabulary:* These key words and technical terms are subject specific. They are often highlighted in textbooks. Students need them to understand lesson concepts, but many are low-frequency words (i.e., not regularly used outside of the classroom).
  - *General academic vocabulary:* These words include cross-curricular academic terms (e.g., *circumstances, impact, observe*), transition words and logical connectors (e.g., *however*, *because*, *next*), and language function words (e.g., *compare, persuade*). This category includes medium- and high-frequency words that are used in academic and social conversations.
  - *Word parts:* This category refers to roots, prefixes, suffixes, and base words. Attention to the structure of words can help expand a student's vocabulary knowledge considerably. For example, if multilingual learners know that *re* is the prefix meaning "to repeat," they can begin to guess the meaning of words like *reread, rewrite,* and *recycle.* This is also an area where home language knowledge can facilitate word learning, especially for students from Latin-based language backgrounds.
- **Language Skills and Functions.** Your language objectives might focus on one of the skills or subskills of the four language domains—reading, writing, listening, and speaking, or on a language function (e.g., retell, persuade) that indicates the purpose for which students use language in the lesson.
  - Multilingual learners need some direct instruction in the four language skills, along with opportunities to practice. The skill selected needs to link to the topic of the lesson. For example, in a language arts class, students may need to *read and find key details* in the text to cite as evidence in an essay. In history, they may need to *listen to a recording* of a debate in order to determine two positions on a controversial issue. In science, they may have to *record their observations* during an experiment.
  - Lessons also call for students to use language for a specific purpose—to *describe*, *compare*, or *predict*, for example. Multilingual learners need instruction and models here as well, particularly in ways to articulate their descriptions, comparisons, predictions, and the like.

- **Language Structures or Grammar.** Students also benefit when you write objectives that reflect the common language structures in the written or spoken discourse of your subjects. For example, your students might be struggling with a text that includes the passive voice or if-then sentences. If so, you may teach students how to interpret these sentences. If you are an ELD teacher, this category offers the opportunity to teach grammatical forms that will really advance your students' language proficiency.
- **Language Learning Strategies.** By planning objectives to teach language learning strategies, you can set students up with resources to learn on their own. Examples include
  - corrective strategies (e.g., reread confusing text),
  - self-monitoring strategies (e.g., make and confirm predictions),
  - prereading strategies (e.g., preview headings, relate to personal experience),
  - language practice strategies (e.g., repeat or rehearse phrases, imitate a native speaker), and
  - cognate strategies (e.g., teach students with Latin-based or Greek-based native languages to consider cognates when they see new academic terms).

  More discussion on strategies is found in Chapter 5.

Selecting Potential Language Objectives. One of the difficulties teachers face is narrowing down the wide range of possible language objectives. Multilingual learners need lots of academic language development, so how should a teacher select one or two language targets for a lesson? We suggest that you think about the four categories of language as you analyze how language will be used in your lesson or unit of study. You may find it helpful to reflect on the 4Ts:

- Texts—what language students need to know to comprehend reading passages and written instructions,
- Talk—what language students need to know to understand your speech and to participate in class discussions,
- Tasks—what language students need to know to complete activities and assignments, and
- Tests—what language students need to know to comprehend test questions or prompts and demonstrate their knowledge.

As you consider the language that will be needed for a lesson or unit, you can organize your ideas in a language targets chart, as seen in Figure 2.2. Jot down your ideas according to the categories and use it as a brainstorming tool.[1]

The next step is to think about your multilingual students. What do they know and what can they do with language already? Where might your students need assistance with the potential language targets you listed in the chart? How can you

[1] See *Developing Academic Language with the SIOP® Model* (Short & Echevarría, 2016) for detailed information on selecting and writing language objectives for SIOP lessons and for activities to help you apply the guidelines to your own classes.

FIGURE 2.2 Language Targets Chart

Language Targets Chart

Academic Vocabulary	Language Skills / Functions
Language Structures / Grammar	Language Learning Strategies

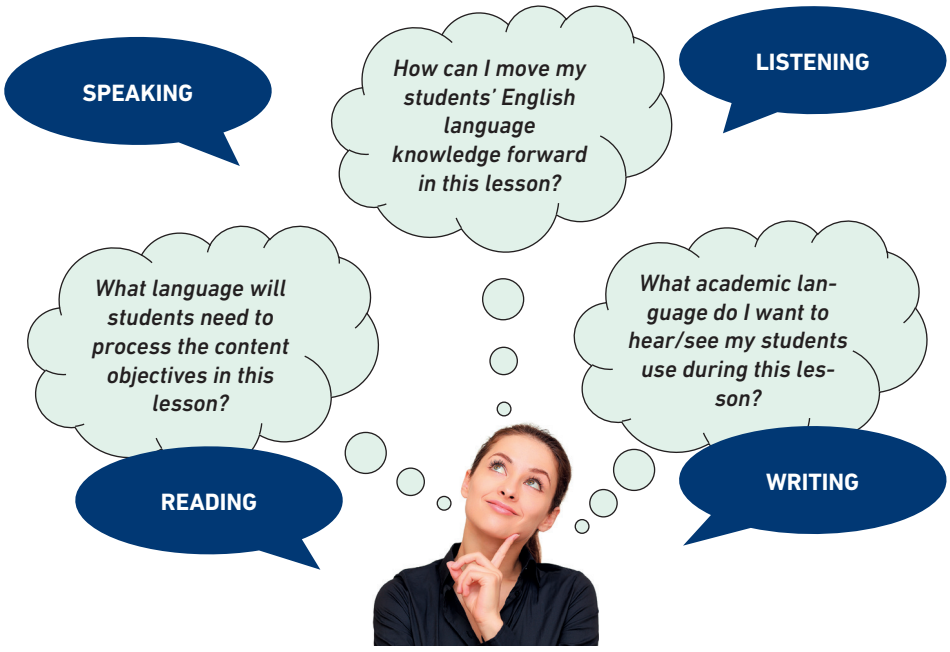
Source: *Developing Academic Language with the SIOP® Model* (Short & Echevarría, 2016), Chapter 3. Used with permission.

advance their academic English with this lesson? Figure 2.3 illustrates questions to ask yourself as you plan your lessons or units.

If you are planning one lesson, select one or two objectives from your Language Targets Chart that are most useful to the students and relevant to the topic. If you are planning a unit, sequence the objectives across the days so you tap the range of categories and build language proficiency.

Writing Language Objectives. For some of you, writing language objectives will be a new process. We want to acknowledge that there is no single way to write these

FIGURE 2.3 Questions to Ask When Selecting Objectives



Sources: Andrea Rients and Anastasia Vish/123RF.com.

objectives, but remember they need to reflect an aspect of academic English that students need to learn or improve.

To help you with the process, we offer the following language frames as scaffolds (Short & Echevarría, 2016). To complete them, follow the suggestions we made earlier: Think about which category of academic language your students need to learn and where in the lesson (e.g., the text or task) the language will be needed or practiced. Use this analysis to determine a language target. Then include the language target with a language function in a statement like one of the following:

A: **Students will (language function: active verb) using/with (*language target*)**.

B: **Students will [use] (*language target*) to (language function: active verb)**.

C: **Students will (*language target as active verb*) [with/to___]**.

You will notice that there is some flexibility with the frames according to the target and function selected. Here are some examples of these objectives from the frames above. The language target is italicized:

A: Students will explain a science experiment using *if-then statements*.

B: Students will *use cognates* to determine word meaning.

C: Students will *read to find the main idea*.

As you write your objectives—content and language, you may want to keep the verbs in Figure 2.4 in mind. You'll see that they are all active verbs. In SIOP lessons, you should avoid using verbs like *learn*, *know*, and *understand* because the processes are not observable. Although the verbs in the chart are not exclusive to one category or another, they are more commonly used with the category presented. Over time, add to this list to further distinguish between the content and language goals of your lesson.

In Figure 2.5, we show how language objectives might be written for these four categories. One column shows language objectives for a first-grade social studies class. The next column shows language objectives for a third-grade math lesson on geometric shapes. The third column shows language objectives for a middle school

FIGURE 2.4 Sample Verbs for Writing Content and Language Objectives

Verbs for Content Objectives	Verbs for Language Objectives
Identify	Listen for
Solve	Retell
Investigate	Define
Distinguish	Find the main idea
Hypothesize	Compare
Create	Summarize
Select	Rehearse
Draw conclusions about	Persuade
Determine	Write
Find	Draft
Calculate	Defend a position on
Observe	Describe

FIGURE 2.5 Sample Language Objectives by Category with Instructional Practices

Type of Language Objective	Grade 1 Social Studies Example	Grade 3 Math Example	Middle School Language Arts Example	High School Chemistry Example
Academic Vocabulary ↓	We will use key words (e.g., *park, library, school, apartment building, house*) and prepositions (e.g., *next to, beside, across*) to describe locations in the neighborhood.	Students will be able to define the terms *square, rectangle, rhombus, trapezoid,* and *parallelogram* orally and in writing.	Students will be able to state the figurative and literal meanings of expressions of hyperbole.	Students will be able to define the terms *chemical reaction, chemical change,* and *physical change* orally and in writing.
What it means instructionally	Teacher teaches students key terms and prepositions and models how to use them to describe the locations of different buildings in the neighborhood.	Teacher teaches (or reminds) students how to define a term: state attributes, give an example, draw a picture, or use it in a sentence.	Using examples (e.g., "my feet are killing me"), the teacher explains what hyperbole is and the difference between figurative and literal language. Students evaluate sample statements as hyperbolic or not and explain why.	Teacher teaches (or reminds) students how to define a term: state attributes, draw an illustration, use in a sentence, give an analogy, provide an antonym, or identify group membership and distinguishing characteristics.
Language Skills and Functions ↓	We will compare features of neighborhood locations using comparative phrases.	Students will be able to listen to teacher descriptions in order to draw different types of parallelograms.	Students will be able to express an opinion orally in a formal and an informal manner.	Students will be able to formulate questions and generate hypotheses before conducting an experiment.
What it means instructionally	Teacher teaches comparative language frames, such as "Both ___ and ___ have." and "___ and ___ are alike/different because ___."	Teacher teaches a listening comprehension skill—paying attention to key words—and asks students to draw the shapes or construct them on a geoboard.	Teacher demonstrates an oral book review as she might tell it to a friend and as she might tell it to a teacher. She calls attention to word choice, intonation, and rhetorical style. She asks students to prepare a similar report on a book, song, or movie.	Teacher teaches (or reminds) students of the way to form these language functions: formulate a question and then state a hypothesis, perhaps with sentence starters like "Will the ___?" and "We predict that ___."

Language Structures or Grammar ↓	We will use singular and plural nouns with past tense irregular verbs.	Students will be able to use comparative phrases, such as *greater than, larger than, smaller than, less than,* and *equal to* orally and in writing when comparing geometric figures and angles.	Students will be able to use conjunctions and dependent clauses to join ideas in compound and complex sentences.	Students will be able to use adverbs of time in their lab report to describe their observations.
What it means instructionally	Teacher introduces (or reviews) the difference between singular and plural nouns (using neighborhood examples) and models sentences with past tense irregular verb forms (e.g., *I went to two stores on Ash Street*).	Teacher introduces (or reviews) these comparative phrases and also shows the corresponding mathematical symbols (i.e., >, <, and =).	Teacher introduces (or reviews) conjunctions and dependent clauses and how their use can create a variety of sentences with two or more related ideas. Students practice writing such sentences.	Teacher teaches (or reviews) adverbs of time (e.g., *first, next, later, after three minutes, for several hours*) and shows models of usage in a lab report.
Language Learning Strategies ↓	We will listen for key words to mark a journey on a map and monitor our result.	Students will be able to visualize and relate the geometric shapes to their lives.	Students will be able to rehearse an oral presentation with a peer.	Students will be able to monitor subject-verb agreement in written lab reports.
What it means instructionally	Teacher models a jigsaw activity where one student gives directions orally and a partner records the route on a map. The pairs check for accuracy.	Teacher explains how to visualize and make a personal connection and how to articulate the mental image, using a think-aloud.	Teacher teaches class how to listen and give feedback to an oral presentation based on certain criteria (e.g., word choice, intonation) and provides class time for rehearsing.	Teacher discusses subject-verb agreement and points out examples in a model lab report. Teacher then shows students how to check a sentence for subject-verb agreement, particularly for noun phrases (e.g., *potassium and sodium* combine to form salt).

language arts class, and the final column shows language objectives for a high school chemistry class. These objectives are illustrative and would not all be addressed in one lesson; instead, they could be used over a series of lessons. The chart also explains how SIOP teachers would address the objectives in the lessons, in the rows labeled "What it means instructionally." As you write your plans, remember, there must be some instruction and practice related to the language objective.

As you get started writing your own objectives, remember that it is important to include a variety of language objectives over the course of each week. Many teachers feel comfortable teaching vocabulary as their language objective. This is a good first step, but it is not the complete picture of the language development our multilingual learners need to be successful in school and beyond. So draw from all four categories as you plan a series of lessons or a unit of study.

Some teachers who have students with mixed levels of English proficiency in class have asked if they need to write language objectives for each proficiency level. The answer is no. Instead, write an objective that all students should attain based on the content concepts in the lesson, but adjust the intended outcome or performance task to match the students' ability levels. For example, consider the example above "Students will read to find the main idea." You can differentiate the text students read based on proficiency level and/or adjust the activity by which students demonstrate that they know the main idea. Some multilingual learners may master the objective by the end of the lesson; others will be at some point on a path toward mastery.

Connecting Content and Language Objectives. As you write content and language objectives for your lessons, you may find that they are closely linked at times, but not always. Because you are continually adjusting the language objectives to your students' academic language learning needs, this is understandable. In the following upper elementary math lesson, there is a close alignment.

- Students will solve word problems using a two-step process.
- Students will write a word problem requiring a two-step process for a classmate to solve.

The first statement is the content objective. It focuses on a mathematical procedure students must learn. The second is the language objective. Students use their math writing skills to apply their knowledge of the procedure.

At other times, the language objective might extend the content knowledge, as in this European History lesson:

- Students will explain the causes of the economic recovery of Europe after World War II.
- Students will write and present a podcast summarizing Europe's economic growth over the five years following the end of WWII.

In this lesson, students use the text and other sources to determine how the economy in Europe improved over time, finding events that occurred or steps that governments took. The teacher may have to explain the Marshall Plan and other initiatives. The teacher may then have to guide students in creating a podcast: how to organize

the ideas, write a script, and rehearse. Besides helping students articulate their information orally, the teacher may also encourage them to focus on some paralinguistic aspects of the presentation, such as intonation and vocal speed.

For language arts and reading teachers, distinguishing language and content objectives can be tricky. Certain curriculum concepts like *plot* and *setting* are clearly candidates for content objectives because they are specific to the language arts subject, but other possibilities like "produce writing that conveys a clear point of view" could be either a language or a content objective. It could even be a language objective in a history class.

Despite possible overlap, we advise language arts and reading teachers to consistently identify both a content and a language objective for each lesson, even if the decision seems arbitrary because one might be placed in either category. Or, you may decide that reading and writing-related objectives will be content objectives and speaking, listening, and vocabulary targets will be language objectives. Because we are aiming for whole-school implementation of the SIOP Model, having students recognize and expect both types of objectives in all their classes is a valuable goal.

When multilingual learners practice objectives that are explicit learning targets, they advance their knowledge base. Objectives, in sum, are the learning targets related to the content and language knowledge students must acquire, and they are necessary for students to be able to accomplish the activities and master the curriculum.

> "Lesson Preparation benefits students so that I do not waste instructional time due to lack of preparedness. When I have my GPS in place, my content and language objectives, we know where we are going and how we are getting there!"
>
> Dr. Francheska Figueroa, Postdoctoral Research Scholar, Arizona

Checking Your Objectives. The final task after you have written your content and language objectives is to evaluate them. This checklist can help you do so:

_____ The objectives are aligned to state or district standards.

_____ The objectives are observable.

_____ The objectives are written and will be stated simply in language that multilingual learners can understand.

_____ The objectives are written in terms of student learning.

_____ The content objective is related to the key concept of the lesson.

_____ The language objective promotes student academic language growth (i.e., it is not something most students already do well).

_____ The language objective has an instructional connection to the lesson topic or activities.

_____ The objectives are measurable. I have a plan for assessing student progress on meeting both types of objectives during the lesson.

SIOP®

SIOP® FEATURE 3:

Content Concepts Appropriate for Age and Educational Background Level of Students

SIOP teachers must carefully consider the content concepts they wish to teach, and use district curriculum guidelines and grade-level content standards as guides. In SIOP classrooms, this entails ensuring that although materials may be adapted to

meet the needs of multilingual learners, the content is not diminished. When planning lessons around content concepts, consider the following:

- your multilingual students' first language literacy,
- their English language proficiency,
- their schooling backgrounds and academic preparation for grade-level work,
- their background knowledge of the topic,
- the cultural and age appropriateness of instructional materials, and
- the difficulty level of any text or other material to be read.

Our goal as SIOP teachers is to provide the grade-level curriculum to our multilingual learners. By employing the type of techniques we propose in the SIOP Model, teachers skillfully make that content comprehensible to them. Sometimes you may adapt the materials being read or the materials used to accomplish a task. If so, keep the following considerations in mind.

- In general, it is inappropriate to use the curriculum materials and books from much earlier grades. Students also deserve books with age-appropriate illustrations. If necessary when using grade-level or near grade-level material, provide the scaffolding that multilingual learners need to understand the content concepts and complex text used in the lesson.
- In some cases, students with major gaps in their educational backgrounds may be placed in newcomer programs or specialized classes. You should still use the SIOP Model, but can pull objectives and content concepts from earlier grades in order to provide the foundational knowledge the students need to perform grade-level work successfully and catch up to their classmates (Custodio & O'Loughlin, 2017; Samway, Pease-Alvarez & Alvarez, 2020; Short & Boyson, 2012). We recommend that schools develop specialized courses to accelerate the learning of multilingual learners with limited formal schooling. (See, for example, the courses developed in New York under the Bridges to Academic Success project [https://bridges-sifeproject.com]).
- Be mindful of concepts multilingual learners have already acquired through their life experiences or prior schooling. An illustration, demonstration, or video clip can help students recall a concept and then the SIOP teacher can help them learn new English words to describe the concept and add to their understanding of it.
- To help multilingual learners make connections to the content topics, reflect on the amount of background knowledge needed to learn and apply the concepts, and plan ways to build or activate students' prior knowledge related to them. For example, middle school students typically learn about the U.S. Civil War, yet some newly arrived high school multilingual learners may not have studied this topic. Rather than diminish the content, use what prior knowledge students do have, perhaps about conflicts in their home countries, and then explicitly build background from there as a foundation for the lesson.
- Another way to build background for a small group of learners is through a minilesson that precedes the regular whole-class lesson (Vogt & Echevarria, 2022). This minilesson provides a "jump-start" by reviewing key background concepts and introducing vocabulary. It develops context and gives access to

students who may lack appropriate background knowledge or experience with the grade-level content concepts. In some dual language programs, this practice is part of Preview/Review and is conducted in the home language or non-instructional language of the students (Ebe, Soto, Freeman, & Freeman, 2021). Chapter 3 details several ways to accomplish this background building, such as leading a picture walk through the reading material, watching a video clip online, and having learners participate in experiential activities.

- In schools where an ELD teacher and a classroom teacher work collaboratively with the same group of students, the ELD teacher can offer lessons that build background and vocabulary before the multilingual learners study the topic in their regular class. See Chapter 11 for a fuller discussion of teacher collaboration for co-planning and co-teaching.

SIOP®

SIOP® FEATURE 4:

Supplementary Materials Used to a High Degree, Making the Lesson Clear and Meaningful

When SIOP teachers contextualize information, they help multilingual learners understand the core curriculum and complete more cognitively demanding tasks. Effective SIOP instruction accomplishes this in part through the use of supplementary materials. These materials can especially assist students who do not have grade-level academic backgrounds and/or who have language and learning difficulties, because lectures and activities centered on a text are often difficult for them. Supplementary materials enhance meaning and clarify confusing concepts, making lessons more relevant.

A variety of supplementary materials also support different learning styles and multiple intelligences because information and concepts are presented in a multifaceted manner. Multilingual learners can see, hear, feel, perform, create, and participate in order to make connections and construct relevant meanings. The use of technology (e.g., interactive whiteboards, pre-loaded apps on tablets) and multimedia can enhance student understanding and engagement with the content topics and related language practice opportunities.

Supplementary materials can help create a culturally responsive classroom as well (Shin, Savic & Machida, 2021; Snyder & Staehr Fenner, 2021). They can provide a real-life context and enable students to bridge prior experiences from their own backgrounds with new learning. They also honor the diversity of backgrounds, experiences, and cultures that our students bring to the classroom. Further, they provide the occasion for a multilingual learner to be the expert in class, emphasizing an asset-based approach to teaching and learning.

Examples of supplementary materials and resources that can be used to create context and support content concepts include the following:

- **Pictures and Visuals:** Visual supports can build background knowledge and help students explore a wide variety of content and vocabulary concepts. Photographs, illustrations, graphs, charts, timelines, and maps are available that depict nearly any object, process, action, or setting. Sources of images include websites, magazines, commercial photos, books, and hand drawings. Many teachers have

electronic document viewers and interactive whiteboards that they use to display book pages, photos, and other artifacts to the class. Students who have difficulty processing a large amount of auditory information particularly benefit when instruction is supported with visual clues.

- **Multimedia:** Multimedia materials such as video clips, podcasts, and Internet resources can enhance teaching and learning. Media in the students' native language can also be valuable sources of information, with audio links as well as written text. It is important to preview websites for appropriateness and readability, especially when using them with students at beginning and intermediate language levels or with young learners.
- **Related Literature:** A wide variety of fiction and nonfiction texts can be included to support instruction, including material written or recorded in the students' home languages or tied to their cultural experiences. Some thematic book sets (e.g., *Civil Rights Leaders Around the World*) cover unique but related topics and are written at different reading levels (e.g., one below-level book, two on-level books, one above-level book). Other book sets may have several versions of the same book available, each written at a different reading level. Some websites such as www.newsela.com offer articles aligned to grade-level curriculum standards that are written for different reading levels, too. These resources are useful for classes that have students with multiple proficiency levels in English.
- **Class Libraries:** Many teachers create class libraries with trade books and leveled readers on key topics. Some teachers ask librarians to find books on related topics as well.[2] Student-written books may be included, too. Children can read these materials as supplements to the textbook. They offer a motivating way to look at a topic in more depth. Class libraries can promote more independent reading among students, which is valuable for vocabulary development and reading comprehension practice.
- **Manipulatives:** These can include anything from counter chips for math to microscopes for science to interactive maps for geography. Manipulating objects physically can reduce the language load of an activity; beginning-level students in particular can still participate and demonstrate their understanding. Technology tools allow students to move items around a computer screen, too. Be sure to demonstrate how to use materials so that students can accomplish lesson tasks (e.g., measuring liquid in a beaker, using fraction bars).
- **Realia:** These are real-life objects that enable multilingual learners to make connections to their own lives. Examples include play money (coins and bills) for a unit on money; realia such as photos, recordings, and artifacts for a social studies unit; or nutrition labels on food products for a health unit.
- **Chapter Summaries:** Some textbook publishers provide one-page summaries of each chapter, which present the key ideas. The summaries are often available in Spanish and sometimes in other languages as well. They can be used to preview the topic or to review it afterward.

[2] See Short, Cloud, Morris, and Motta (2012) to learn about a project organizing library books by lesson topic and English proficiency level and creating bookmarks for book sets.

SIOP® **SIOP® FEATURE 5:**

Adaptation of Content to All Levels of Student Proficiency

In many schools, teachers are required to use textbooks that are too difficult for some of their multilingual learners to read, yet the students cannot be expected to learn all content information by listening to lectures either. We must therefore find ways to make the text and other resource materials accessible for all students. We do not advocate "watering down" text because content concepts are frequently lost when the text is adapted in this way; rather, we adapt our instruction and materials so that the content concepts are left intact.

- **Native language supports.** If some of your multilingual learners are literate in their native language, use texts written in that language to supplement a textbook or clarify key concepts. For students who are not literate in their native language but have oral skills, native language broadcasts, podcasts, and audio books may be additional sources of information. For some multilingual learners, multiple exposures to the audio version of a text may result in a more thorough understanding.

  Our goal is to help students understand text and information presented orally in English, and our job is to teach the vocabulary, sentence structure, connections between sentences and paragraphs, and other necessary information to the multilingual learners so they can increase their independence. If we can give them the gist of what they will be learning beforehand through their native language, we can then build on that new knowledge, and, with careful lesson planning, advance their English language skills and strengthen their content knowledge.
- **Text summaries.** Summarize the text to focus on the key points of information to help students focus on key historical events, steps for solving a math problem, or a story plot, for example. The new text might be written as an outline, a list of bulleted points, or a graphic organizer like a flow chart. You can use it as a prereading instructional strategy, as an aid during reading, and as a postreading method for organizing newly learned information.
- **Text elaboration.** There are several ways to elaborate a text: (1) provide a companion glossary that defines vocabulary and explains key concepts; (2) prepare a study guide with questions to consider as students read sections of a text or other annotations to the text; (3) rewrite portions of the text, being sure to maintain critical content information, but perhaps simplifying the sentence structure, starting all paragraphs with the topic sentences, embedding definitions of difficult words, and/or adding more visuals or background information.

So far, we have discussed adapting the text used to deliver content information. Other types of adaptations in class may involve the worksheets and other instructional supports that students use to complete a task. Some students might benefit from having a word bank available while they are writing a summary or paragraph

about a topic while others will not need that support. If the students are to take notes in a T-chart format (e.g., main ideas in left column and key details in right), some students might use a blank chart and others might have a version that is partially completed. You can also adapt the task. Students may conduct research using native language materials (in print or online), for example, and share the information with classmates in English. In other words, by differentiating the materials or the task, you can adapt the content to student proficiency levels. But note, as proficiency advances, less to no adaptation is needed.

On the SIOP rating form, a lesson may receive an N/A for feature #5 if the content does not need adaptation for student comprehension.

SIOP® **SIOP® FEATURE 6:**

Meaningful Activities That Integrate Lesson Concepts with Language Practice Opportunities for Reading, Writing, Listening, and/or Speaking

To the extent possible, lesson activities should be planned to promote language development in all skills while multilingual learners are mastering content objectives. We want to provide oral and written language practice that is relevant to the lesson concepts, but remember: Activities that generate language practice are not language objectives. Language objectives require explicit instruction, for example, about a language skill or structure needed to accomplish the activities.

Multilingual learners are more successful when they are able to make connections between what they know and what they are learning by relating classroom experiences to their own lives. These meaningful experiences are often described as "authentic," because they represent a reality for students. That is, classroom experiences mirror what actually occurs in the learner's world. Authentic, meaningful experiences are especially important for multilingual learners because they are learning to attach labels and terms to things already familiar to them. Their learning becomes situated rather than abstract when they are provided with the opportunity to actually experience what they are being taught.

In some classrooms, however, multilingual learners have been assigned activities that are not meaningful and are unrelated to the content and activities pursued by their English proficient classmates. It is essential that content standards that apply to students with English proficiency also apply to multilingual learners, and that the planned activities reflect and support these standards.

Consider a middle school science class where students are studying animal adaptations. While the rest of the class learns about adaptations that help animals survive or thrive in their environments, the teacher has the beginning-level learners color and cut out pictures of birds from the Galapagos Islands. This activity is

neither authentic nor relevant for these students. In this instance, the teacher has obviously not provided meaningful activities that support the grade-level science content standards. (A SIOP teacher however would have many ways to engage multilingual learners in this lesson—the use of videos to demonstrate adaptations like color camouflage and physical characteristics, preteaching vocabulary and comparative sentence patterns, partnering students for discussion, and experiential tasks like using different utensils to pick up food items [e.g., nuts, seeds, beans], to name but a few.)

> "As a teacher, this is where I ask myself "Is this the BEST activity for students to practice and show their learning?" When I answer the question with a yes, it is because students are incorporating all language modalities during the activity."
>
> Andrea Rients, Professional Development Coordinator, Minnesota

The activities planned in the lessons may be for guided practice or application. When SIOP teachers add student choice opportunities, such as for projects, they can incorporate and sustain students' cultures and backgrounds. When studying geometric shapes, for example, multilingual students might examine artwork, architecture, or fabric prints from their countries and report on common shapes or designs. When studying forms of national governments, students might compare the U.S. form of representative democracy to the government of a country of their own choosing.

As you continue to read this chapter and the remaining ones, you will find a host of teaching ideas for meaningful activities that integrate the concepts with language practice. The resources listed in Appendix F provide many more as well.

Application to Your Classroom: Lesson Preparation

- **Presenting Objectives to the Class.** Effective SIOP teachers do more than just go through the motions by writing the objectives on the board and reading them quickly to the class. Involve your students in thinking about the objectives and the upcoming lesson in the first few minutes. Here are some ways to make the presentation of objectives more productive.
  - Ask students to pick out important words from the objective and highlight them—for example, the verbs and nouns.
  - Ask students to paraphrase the objectives with a partner, each taking a turn, using the frame: "We will ___."
  - Present the objective and then do a Timed-Pair-Share, asking students to predict some of the things they think they will be doing for the lesson that day.
  - Begin the lesson with a 3–5 minute activity or demonstration and then ask students to infer what the objectives might be.
- **Number 1, 2, 3 for Self-Assessment of Objectives.** In this activity, students are asked to diagnose their knowledge about a topic and then take some responsibility for learning new information during the lesson. At the beginning of the lesson, display the objectives and ask students to rate themselves on how well they understand each one. You may read each aloud and have students show with their fingers which of the following ratings fit:

  1. I understand this concept.
  2. It looks familiar, or I have studied something like this before.
  3. I don't know this.

At the end of the lesson, return to the objectives and ask students to rate again, "How well did you meet the objective today?"

1. I can teach the concept to someone else.
2. I understand most of it, but not everything.
3. I don't understand completely. I need more time/practice/examples.

- **Jigsaw Text Reading** (Aronson et al., 1977). This technique works well with multilingual learners when there is a difficult-to-read or very lengthy text.
  1. Form cooperative learning "home" groups and then have one or two members from each group come together to form a new group of "experts."
  2. Assign each new "expert" group a different section of the text to read. This group can take turns reading the text aloud, have partners read to each other, or have group members read the text silently.
  3. Following the reading, each "expert" group reviews and discusses what was read, determining the essential information and key vocabulary. You may prepare a worksheet for them to record key information and guide their comprehension.
  4. Check carefully with each "expert" group to make sure all members understand the material they have read.
  5. After you are confident that the "experts" know their assigned information, have them return to their "home" groups and teach fellow group members what they learned. You may have another worksheet for the group to complete.

  This process scaffolds the learning of multilingual learners because in both groups they are working with others to understand the text. Some classmates may have more background information on the topic. Text can be read with other students, reducing the demands of tackling lengthy sections alone. Depending on English proficiency, multilingual learners may join an "expert" group individually or with a partner. It works best when you form the "expert" groups rather than letting students choose their own group members.
- **Graphic Organizers.** Graphic organizers include story maps, text structure charts, Venn diagrams, timelines, word webs, thinking maps, and flow charts. These schematic diagrams are ubiquitous in today's classrooms, but that does not reduce their value. When preparing a lesson, teachers should think about possible graphic organizers that can provide conceptual clarity for information that is difficult to grasp. Graphic organizers help students identify key content concepts and make relationships among them (McLaughlin & Allen, 2009). They also provide multilingual learners with visual clues they can use to supplement written or spoken words that may be hard to understand.
  - When used *before reading*, graphic organizers can build background for complex or dense text. The type of organizer (e.g., Venn diagram, flow chart, tree map) can preview the text structure, too. For example, a Venn diagram forecasts a comparison-contrast text and a flow chart suggests a cause-effect text.

- When used *concurrently with reading*, they focus students' attention and act as a guide to the information. They help students make connections (e.g., a 2-column chart can elicit comparisons), take notes, and understand the text structure (e.g., a timeline informs students the text will be organized chronologically).
- When used *after reading*, graphic organizers can be employed to record key content information, personal responses, or connections to other texts or topics. They can also be used as prewriting tools for various tasks that might be developed from state writing standards, such as when students have to "draw evidence from literary or information texts to support" written analysis or reflection.

- **Videos.** Gone are the days when we would pop a videotape in a VCR player, but using videos to teach students is still worthwhile. Videos are often motivating for multilingual learners and the images convey knowledge without the potential comprehension struggle of written text. Technology now allows us to bring video clips into the classroom through interactive whiteboards, computers, and smartphones. Some teachers play videos with the sound off the first time to help students focus on the gist of the message or assign watching a video clip for homework before beginning a new unit. Video clips related to grade-level curricula can be found at sites like www.discoveryeducation.com, www.pbs.com, and www.nationalgeographic.com. Other sites, like www.brainpop.com and https://ed.ted.com offer a wide range of material for students in grades K–12, video clips along with lesson ideas, quizzes, and/or other features.

Differentiating for Multilevel Classes

The Lesson Preparation component offers teachers multiple opportunities to meet the needs of students with different abilities or language proficiency levels in their classrooms. Although it takes time to prepare a lesson for different groups of students, the investment pays off when all of your students learn the material and you do not have to reteach.

- The first step is knowing your students: their literacy skills both in English and in their native language, their schooling backgrounds (including the number of years they have completed in school), their learning styles, and their multiple intelligences. With this knowledge you can have realistic expectations about what they can accomplish and plan activities accordingly. The WIDA Can-Do descriptors can help you set these expectations.
- The second step is to consider where in your lesson students will need some differentiated instruction.
  - Is it when you introduce new content? If so, should you use different texts or a different presentation style? Should you modulate your speech? Preteach vocabulary?
  - Is it when the learners must perform a task to practice or apply the new information or language target? If so, you may have to consider how you

will group the students. Or you may assign different tasks to different groups (based on language proficiency or learning style, for example). You may prepare different handouts or other materials.

- Is it when you are checking for comprehension? Then you might plan leveled questions so you can address students in ways that they will be able to comprehend the question and have a chance to respond. Or you may prorate the assignment students complete (e.g., a one-page report for some, a three-page report for others).

A few specific examples of differentiated activities follow.

- **Differentiated Sentence Starters** (Short, Vogt, & Echevarría, 2011a, pp. 30–31). This technique converts teacher-developed leveled questions into sentence starters that the students might use orally or in writing.
  1. Begin with the essential question of a lesson.
     For example: How do animals change as they grow?
  2. Write questions at a variety of levels of difficulty.
     For example: (a) What does a caterpillar change into as it grows up?
     (b) Do all animals look different when they grow up? Explain.
     (c) Why do animals change as they grow?
  3. Convert the questions into sentence starters.
     For example: (a) When a caterpillar grows up, it . . . .
     (b) Yes, all animals look different because . . . . [or] No, not all animals look different. For example, ...
     (c) Animals change as they grow for several reasons. For one, ...
  4. Post the questions and have the students respond, either by self-selecting a sentence starter or by being assigned one.
- **Leveled Study Guides.** Study guides to accompany assigned text or a unit's topics can be specifically written for diverse students' needs and their stages of language and literacy development. All students are expected to master the key concepts in the text or unit; however, some need support for comprehension while others can delve more deeply into the material on their own.
  - For students who can easily read the text material, write a study guide so they can extend and enrich their knowledge of the topic, and be sure to include challenging questions or tasks.
  - For those who need a little support, write a study guide with definitions and "hints" for unlocking the meaning to lead them through the text. Include a few challenging questions and tasks.
  - For some multilingual learners and struggling readers, create a study guide with brief summaries of the text or topic along with more manageable questions and tasks.

  Of course, the option to try a more challenging guide should be open to all students.
- **Scaffolded Outlines.** Teacher-prepared outlines equip students with a form they can use for note-taking while reading dense portions of text, watching a video, or

FIGURE 2.6 Scaffolded Outlines

Beginning Level

The Circulatory System

I. Major Organs
  A. Heart
    1. Pumps blood throughout the body
    2. _____
  B. Blood vessels
    1. _____
    2. _____
II. Major Vessels
  A. Artery
    1. Takes blood away from heart
    2. _____
  B. Vein
    1. Brings blood back to the heart
    2. _____
  C. Capillaries
    1. Connects arteries and veins
    2. _____
III. Types of Blood Cells
  A. Red blood cells
    1. _____
  B. _____
    1. Fights disease
  C. Platelets
    1. _____

Intermediate–Advanced Level

The Circulatory System

I. Major Organs
  A. Heart
    1. _____
    2. _____
  B. _____
    1. _____
    2. _____
II. Major Vessels
  A. Artery
    1. _____
    2. _____
  B. Vein
    1. _____
    2. _____
  C. _____
    1. _____
    2. _____
III. Types of Blood Cells
  A. Red blood cells
    1. _____
  B. _____
    1. Fights disease
  C. _____
    1. _____

listening to a speech, thus providing scaffolded support. These are especially helpful for students at beginning and intermediate language levels if some of the major concepts, or even some details, are already filled in. The students can then add other information to the outline as they read, watch, or listen. For some students, a completed outline becomes a useful tool for review. Figure 2.6 shows an example of two versions of a scaffolded outline for a science reading on the circulatory system.

SIOP Lesson Planning

"How do I start implementing SIOP lessons?" is a frequent question from teachers new to the SIOP Model. We suggest that

- elementary school teachers begin with one subject area, and
- secondary school teachers begin with one course.

It is better to begin on a small scale so you do not have to write multiple SIOP lessons each day while you are learning the model. In some cases, teachers learn the SIOP Model over time, component by component in a cumulative manner, and they

build their lesson planning skills in the same way. That, in fact, is how we designed this book. One discussion question in each chapter will direct you to develop a SIOP lesson, adding more features and refining it as you learn about the model.

It's helpful to recognize that it takes time to get good at SIOP lesson planning! As you begin SIOP implementation, we strongly encourage you to write out lesson plans in detail and keep the short form of the SIOP protocol (Appendix A) handy as a checklist to ensure all of the features are incorporated. You may want to try one or more of the lesson plan templates in Appendix C or the templates in Chapter 7 of *Implementing the SIOP® Model Through Effective Professional Development and Coaching* (Echevarría, Short, & Vogt, 2008). These templates have been used successfully in a variety of classrooms and across grade levels. Once you have internalized the model, you may write less detailed lesson plans, and you will probably find that writing SIOP lessons across subject areas or courses is easier.

When planning, teachers often ask how they can meet all 30 features in a given class period. We explain that one SIOP lesson may be completed in a single day or it may require 2–3 days, depending on the topic covered and tasks assigned. Over the course of several days, all 30 features should be met, however.

Besides writing lessons from scratch, another option is to *SIOPize* a lesson you have already written. Using the checklist, see which features are already present and then enhance your lesson with the missing features. You may need to add explicit instruction for a language objective or more activities for oral interaction, for instance.

Rating Lessons With The SIOP® Protocol

As we mentioned at the start of this chapter, we want to give you the opportunity to check your understanding of the SIOP features and learn to use the SIOP protocol. So, with each component we present scenarios of three teachers who teach the same concepts at the same grade level. After we describe each teacher's lesson, we will ask you to rate the SIOP features for this component on a scale of 4–0, with 4 meaning the feature was well implemented in the lesson and 0 meaning it was not present. You will probably notice that some ratings for the features will seem quite obvious (usually those that merit 0, 1, or 4 on the scale), while others will be more challenging to discern. You can then compare your assessment of the features' implementation with ours in the Discussion section that follows.

Your goal is to have a clear understanding of each feature and how it "looks" during a SIOP lesson. These scenarios are a way to begin that process. It is very helpful to discuss with other teachers, teacher candidates, coaches, supervisors, or professors how you determined your ratings on the various SIOP features for the lessons depicted in this book. Ask yourself: What evidence can you find in the scenarios to justify your scores? Does your judgment match the information shared in this chapter about each feature?

In a number of schools, SIOP teacher groups meet to read the scenarios and discuss the ratings. To deepen their understanding of how the features should be implemented, they also watch video clips of teachers delivering instruction and rate those lessons, too. These collaborative discussions help promote transfer of the growing knowledge about SIOP to lesson planning.

Please note that although we organized this book so that you can rate the lessons as you read, in real life you may not want to give ratings to each feature, especially as you and colleagues are learning to implement the model. You could record comments and note if a feature is present or absent, and then use the protocol to offer targeted feedback. You will also notice that 5 of the 30 features have an N/A option (see Appendix A). After years of research, we determined that those 5 (e.g., Adaptation of Content, in Lesson Preparation) might not be needed in every SIOP lesson. Adaptation of Content, for example, may not be necessary in a class with multilingual learners who are at advanced proficiency levels.

The Lesson

The lesson described below is intended to teach fourth-grade children about analyzing a social science problem from a local perspective.

Solving Local Problems (Fourth Grade)

The classrooms depicted in the teaching scenarios in this chapter are in a suburban elementary school. Multilingual learners represent approximately 30% of the student population, and the children speak a variety of languages. In the fourth-grade classrooms of teachers Levine, Basobana, and Rafael, the majority of the multilingual learners are at the intermediate stage of English fluency. Native English speakers and multilingual students who have exited the English language development program are present along with those who are still in the language program.

At their curriculum planning meeting, the teachers decided on their next unit. It would be devoted to solving a problem in their local community, an introduction to the social science analysis standard, "Explain individual and cooperative approaches people have taken, or could take in the future, to address local, regional, and global problems, as well as predict possible results of those actions." It would also give students more application with another social science standard "Construct explanations using reasoning, correct sequence, examples, and details with relevant information and data." The teachers chose the theme, "Making a Difference," and agreed on a Big Question to guide the lessons and the culminating project: "What is a problem at school or in our community? How could changing it make a difference?" For the unit assessment, the teachers would have students prepare a project about solutions and outcomes to a local issue. The school district does not have an adopted social studies textbook, so the teachers would develop lessons for 6–7 days and find materials on their own.

Teaching Scenarios

The scenarios take us into the classrooms of Ms. Levine, Mrs. Basobana, and Mr. Rafael and describe their planning process and the first two days of the unit. In Chapter 8 we will revisit these classrooms and consider whether the delivery of the lessons was effective or not.

Ms. Levine

Ms. Levine, an experienced SIOP teacher, likes to create a unit-at-a-glance chart before she writes her lesson plans. She thinks about the assessment and what students need to learn to accomplish it. That reasoning helps her write the content and language objectives. Then she slots in the main lesson tasks, adds notes about language elements and student groupings—especially ideas she gets from Ms. Aronson, the ELD teacher who knows her students—and lists the materials they will use.

For Making a Difference, Ms. Levine wanted to focus on youth activists who solved problems in their communities. She anticipated that their stories would be motivating for her students and would demonstrate that young people can have agency. Given this, she worked back from the assessment. Her students appreciate having choice in assignments—their own agency—so she thought they could select how they'd like to present the local problem, possible solutions, and outcomes. Deciding to frame it as a Call to Action, she thought the student groups might want to make a poster or infographic, record a PowerPoint presentation, or produce a video clip for a PSA (public service announcement) or news broadcast. In order to set her students up for success, she would have to teach vocabulary terms and support them in the reasoning process and in expressing problems, solutions, and outcomes.

They would also need some modeling. How does one solve a problem in the community? She began looking for resources on kid activists. She found many sites online and also asked the school librarian for recommendations. She decided to begin with the story of Bellen Woodard, a third-grader who created packs of crayons representing 12 different skin colors. One article was available in Spanish and English. She also found a videoclip where Bellen was interviewed. She could use this story to model the process. The class could summarize the problem and solution with the SWBST (Somebody Wanted But So Then) graphic organizer they used occasionally in language arts. Then in cooperative groups, they could read other stories about youth activists and share out. She would use reciprocal teaching in the groups because the students were familiar with the process (Palincsar & Brown, 1984; Oczkus, 2018) and she could assign the roles—predictor, clarifier, questioner, and summarizer—strategically to accommodate the students' reading and English language skills. In this way, they will be exposed to multiple approaches for solving a local problem.

As Ms. Levine jotted these ideas down in her unit-at-a-glance chart, she had a clearer picture of how the unit would evolve and what the students needed to learn. She then drafted content and language objectives. (See Figure 2.7.) But as she thought about the activities, she realized that some of her multilingual learners need more support, so she would have to adapt some tasks. She would work in a small group with the students at beginning levels of English during the reciprocal teaching activity and also guide them with the SWBST organizer. For the project she would let them choose their groups based on interest, but assign another student in the group as a language buddy to help.

Before the unit began, Ms. Levine wrote her lesson plans, developed her graphic organizers, and gathered the instructional resources. She bookmarked key websites

FIGURE 2.7 **Ms. Levine's Unit-at-a-Glance Chart**

	Day 1	Day 2	Day 3	Day 4	Days 5–6
Unit Theme	Making a Difference				
Big Question	What is a problem at school or in our community? How could changing it make a difference?				
Objectives	CO: SW identify problems and their causes, solutions, and outcomes in texts. LO: SW read a text and write a summary of the problem, solution, and outcome.		CO: SW research a community problem and propose solution and action steps. LO: SW use cause-and-effect language to explain a problem and possible solution. SW make predictions of outcomes.		CO: SW design their Call for Action project. LO: SW give an oral presentation about their project using modal verbs (must, should, could, might).
Activities	Bellen Woodard reading SWBST summary	Youth Activists Reciprocal teaching SWBST summary	Research community problems Generate possible solutions and predict outcomes	List action steps to solve a community problem	Call to Action project: choices: poster, infographic, PSA, video, PowerPoint
Supplementary Materials	Bellen Woodard article, video SWBST graphic organizers	Youth activist stories (Kevin Patel, Marley Dias, Greta Thunberg, Malala Yousafzai)—different reading levels	Bookmarked websites Problem-solution-outcome chart	Sample PSA Do Something.org Problem-solution-outcome chart	Tablets, headphones with mics Poster board, markers
Language and Grouping notes	activist, effect suffixes (*-ion*, *-ist*, *-ive*) whole class	outcome, evaluate cooperative groups (assign roles for recip. teach.) T-led group for beginning readers	___ is a problem because . . . Due to ___, . . . If ___ happens, then . . . We predict that ___	cooperative groups	We must/have to ___ People should ___ It might help if ___ cooperative groups

and posted links in the online class platform. She wrote the content and language objectives for the first two days on her whiteboard:

CO: SW identify problems and their causes, solutions, and outcomes in texts.

LO: SW read a text and write a summary of the problem, solution, and outcome.

She also posted the Big Question for the unit on the bulletin board: What is a problem at school or in our community? How could changing it make a difference?

Figure 2.8 shows the lesson plan for the first two days of the unit. During these days, Ms. Levine explained the unit would be about solving local problems and connected the process to work students do in math. She defined key terms *act*/*action*/*activist*, *effect*/*effective*, and *outcome* and looked at the word parts to show how the suffixes changed the meaning of the words. She asked students to record the words with an representative picture or sentence (in English or their native language) in their notebooks.

FIGURE 2.8 Ms. Levine's SIOP® Lesson Plan for Grade 4 Social Studies

Date: Mar 21 - 22 Grade/Class/Subject: Gr 4 Social Studies
Unit/Theme: Making a Difference Standards: Social Studies Analysis 4.24, 4.21
Content Objective: SW identify problems and their causes, solutions, and outcomes in texts.
Language Objective: SW read a text and write a summary of the problem, solution, and outcome.

Key Vocabulary	Supplementary Materials
cause, effect, problem, solution, action (review terms)	Bellen Woodard story
outcome, activist, result, consequence, effective (new terms)	Print and online stories of 4 youth activists, photos of them
	Somebody Wanted But templates (2 versions)

SIOP ® Features

Lesson Preparation
- ✓ Adaptation of Content: templates, stories at diff. levels
- ✓ Links to Background
- ✓ Links to Past Learning
- ✓ Strategies incorporated: Brainstorm, Predict, Evaluate

Scaffolding
- ✓ Modeling
- ✓ Guided practice
- ✓ Independent practice
- ✓ Comprehensible input

Grouping Options
- ✓ Whole class
- ✓ Small groups
- ✓ Partners
- ___ Independent

Integration of Processes
- ✓ Reading
- ✓ Writing
- ✓ Speaking
- ✓ Listening

Application
- ___ Manipulatives/movement
- ✓ Meaningful
- ✓ Linked to objectives
- ✓ Promotes engagement

Assessment
- ___Individual
- ✓ Group
- ✓ Written
- ___ Oral

Lesson Sequence

Day 1
1. Present content and language objectives. Connect "problem-solution" to math.
2. Brainstorm: What's a problem you see at school or in your community? How could changing it make a difference?
3. Preteach new vocab and review other terms. Point out word relationships in act/action/activist; effect/effective
4. Introduce Bellen Woodard story with a brief summary and text walk. Show graphic organizer template Somebody, Wanted, But, So, Then. Ask students to recall when they used it in language arts and for what purpose (summarizing).
5. Read Bellen story aloud, periodically ask comprehension Qs (think-pair-share), orally explain other vocabulary as needed.
6. Model completing the graphic organizer with student input. Model turning the information from the organizer into sentence or two.
7. Wrap-up: How did Bellen's crayon sets make a difference? (partner share)

Day 2
1. Review objectives. Have students make "Oh Yesterday , we/I . . . " statements to tell what they learned or did the day before.
2. Present task: read story using reciprocal teaching and complete gr. org. Show photos. Group students by reading levels (4-5 per group). Assign texts about youth activists by level and distribute organizers (2 versions for differentiation: SWBST, SWBBST). Work with group of beginning readers.
3. Groups read, discuss, and complete their organizers. Then write one or more sentences using the organizer to describe the problem and solution they read about.
4. Have reporter from each group show and explain the completed organizer (use document camera). For each, ask students, Was that a good solution? Can you think of another one? (think-pair-share)
5. Wrap-up. Four corners: Students move to the corner of the room representing the problem and solution they think was most effective. Review objectives. (1, 2, 3)

Reflections:
Students enjoyed the discussions. Had to cut some discussions of other solutions short when the groups were presenting due to time! Most were able to write their sentences based on the organizer.

Ms. Levine referred to the Big Question and asked students to brainstorm some responses with a partner. She offered an example: *One problem I see is when school ends, sometimes students have to wait for buses outside in the rain. If we solve it, they won't get so wet.* When the pairs reported out, she recorded their ideas on chart paper. She explained the unit project plan briefly and introduced Bellen Woodard as a young activist who identified a problem and took action to solve it. Next she previewed the story about Bellen with a text walk, and then she read it aloud, pausing occasionally to ask comprehension questions.

Ms. Levine explained they would read the story again to identify the problem, its cause, Bellen's solution, and the outcome. They would summarize it with the SWBST organizer that she projected from her computer to the whiteboard. After the second read-through, she elicited ideas from the students to complete the organizer and then as a class they crafted the summary. (See Figure 2.9). To wrap up, she asked students to tell a partner how Bellen's crayon sets made a difference. For homework, she assigned watching a video interview of Bellen that was bookmarked on the class web page.

As the second day began, Ms. Levine had a few students do the "Oh Yesterday" technique[3] to recap the prior day and then reviewed the objectives. Next, she showed them photos of the four young activists that they would read about. She explained they would divide into reciprocal teaching groups to read one of the four stories and complete a Somebody Who summary. They would then share out what they learned, which could give them a range of ideas for their own projects later in the week. She arranged the students into cooperative groups, assigned their reciprocal teaching roles, and passed out the corresponding text and organizer to each group. She planned to work directly with a small group of her three multilingual students who were at beginning levels of English. The two reading groups with stronger readers had an organizer that added a Because section (Somebody Wanted Because But So Then).

When the groups finished, a reporter from each group displayed the organizer using the document camera and explained the problem, solution, and outcome. Ms. Levine invited students to ask questions. After each report, she asked pairs to discuss if they thought it was a good solution and if they could think of another one.

FIGURE 2.9 Graphic Organizer Completed by Ms. Levine's Class

Somebody	Bellen Woodard, third grade
Wanted	crayons for different skin colors
But	most crayon boxes had only a peach color for skin
So	she ordered crayons for diverse colors and made her own packs
Then	she donated the packs to local schools

Bellen Woodard was in third grade and wanted crayons for different skin colors, but most crayon boxes had only a peach color for skin. So, she ordered crayons with diverse colors and made her own crayon packs. Then she donated the packs to local schools.

[3] Three students took turns completing this sentence, "Oh Yesterday, we studied/learned/practiced . . . ," to connect to the previous lesson.

FIGURE 2.10 Lesson Preparation Component of the SIOP® Model: Ms. Levine's Lesson

4	3	2	1	0	
1. **Content objectives** clearly defined, displayed, and reviewed with students		**Content objectives** for students implied		No clearly defined **content objectives** for students	
4	**3**	**2**	**1**	**0**	
2. **Language objectives** clearly defined, displayed, and reviewed with students		**Language objectives** for students implied		No clearly defined **language objectives** for students	
4	**3**	**2**	**1**	**0**	
3. **Content concepts** appropriate for age and educational background level of students		**Content concepts** somewhat appropriate for age and educational background level of students		**Content concepts** inappropriate for age and educational background level of students	
4	**3**	**2**	**1**	**0**	
4. **Supplementary materials** used to a high degree, making the lesson clear and meaningful (e.g., computer programs, graphs, models, visuals)		Some use of **supplementary materials**		No use of **supplementary materials**	
4	**3**	**2**	**1**	**0**	**N/A**
5. **Adaptation of content** (e.g., text, assignment) to all levels of student proficiency		Some **adaptation of content** to all levels of student proficiency		No significant **adaptation of content** to all levels of student proficiency	
4	**3**	**2**	**1**	**0**	
6. **Meaningful activities** that integrate lesson concepts (e.g., interviews, letter writing, simulations, models) with language practice opportunities for reading, writing, listening, and/or speaking		**Meaningful activities** that integrate lesson concepts but provide few language practice opportunities for reading, writing, listening, and/or speaking		No **meaningful activities** that integrate lesson concepts with language practice	

To wrap up, Ms. Levine posted the four activist photos in each corner of the room and then asked the students to move to the corner representing the problem and solution they thought was most effective. They had two minutes to discuss why and then she asked one person from each corner to report out. They reviewed objectives as the time ended, rating their understanding as 1 (I got it), 2 (I'm making progress), or 3 (I need more practice).

Check your understanding: On the SIOP form in Figure 2.10, rate Ms. Levine's lesson on each of the Lesson Preparation features.

Mrs. Basobana

Mrs. Basobana was excited about this unit. A newshound personally, she likes bringing current events into the classroom. She believes the class has rich discussions and

she doesn't like to overprepare. She'd rather design the lessons based on student interests and ideas that come up organically, but did decide on a general plan for each day:

Day 1: SW review the local newspaper for issues in the community and discuss with class.

Day 2: SW generate a list of community and school problems.

Day 3: SW generate possible solutions to a class-selected problem.

Day 4: SW research the solutions and evaluate.

Day 5: SW write a newspaper article for the future, by which time they will have solved their problem to report on their actions and outcomes.

Day 6: SW edit newspaper articles.

For Day 1 she brought in copies of the local newspaper from the past three days and also loaded the website on the class tablets. Since students were already sitting in desk groups, she asked each group to look through one of the papers and find an issue that was a local problem. As the students began the task, many requested help with the articles, asking questions ranging from "Is a robbery a local problem?" to "What does litigation mean?" to "The paper says it will rain tomorrow and that's a problem for our soccer game." Several students complained they couldn't understand the articles.

After ten minutes of this work yielded little progress for many students, she called for the class's attention and asked for a volunteer to report a problem. One student identified an article about the building of a new highway that was going to be close to people's homes. Mrs. Basobana agreed, found the article in her copy, and read the article aloud. Then she asked the class to talk about what they heard, writing some questions on the board:

1. What is the problem?
2. Why is it a problem?
3. What is the solution?
4. Is it a good solution?

During the ensuing discussion, only four students volunteered to respond. Mrs. Basobana had some exchanges with them and as needed, rephrased their ideas to correct or clarify. She invited others to add their thoughts and even called some students by name, but few more participated. She spent a few minutes explaining *eminent domain* and *infrastructure funding* and then asked the class to vote by raising their hands if they thought the solution in the article was a good one.

On the second day, Mrs. Basobana explained the project for the end of the unit. The students would write a newspaper article for the future in which they would identify a problem, describe some possible solutions, select one, pretend that it happened, and tell the result. As a class they would decide on the problem, solution, and outcome, but each group would write its own article, or if someone wanted to write independently that would be okay, too.

To start them off, she asked students to state some problems at the school or in the community. She created a list on the whiteboard. Suggestions included lunch in the cafeteria, trash on the streets, homework, the heater in the music room, people sleeping on the ground, and climate change. Not all students offered an idea but they

all paid attention. After the list was finished, she asked students to rank their top three choices of a problem to solve on a slip of paper and give it to her. She then asked one student to tally the votes on the list posted on the board while she read the slips aloud. During the six minutes needed to collect and count the votes and decipher handwriting, two students started to argue at their seats, engaging the interest of those around them until Mrs. Basobana had the instigators move their desks apart. The winning problem was people sleeping on the ground. She told the students this problem is often referred to as homelessness and shared some of the reasons that people become homeless.

With 5 minutes left in class, Mrs. Basobana suggested students sketch their ideas for solving the problem and said they would work on solutions the next day.

Check your understanding: On the SIOP form in Figure 2.11, rate Mrs. Basobana's lesson on each of the Lesson Preparation features.

FIGURE 2.11 Lesson Preparation Component of the SIOP® Model: Mrs. Basobana's Lesson

4	3	2	1	0	
1. **Content objectives** clearly defined, displayed, and reviewed with students		**Content objectives** for students implied		No clearly defined **content objectives** for students	
4	**3**	**2**	**1**	**0**	
2. **Language objectives** clearly defined, displayed, and reviewed with students		**Language objectives** for students implied		No clearly defined **language objectives** for students	
4	**3**	**2**	**1**	**0**	
3. **Content concepts** appropriate for age and educational background level of students		**Content concepts** somewhat appropriate for age and educational background level of students		**Content concepts** inappropriate for age and educational background level of students	
4	**3**	**2**	**1**	**0**	
4. **Supplementary materials** used to a high degree, making the lesson clear and meaningful (e.g., computer programs, graphs, models, visuals)		Some use of **supplementary materials**		No use of **supplementary materials**	
4	**3**	**2**	**1**	**0**	**N/A**
5. **Adaptation of content** (e.g., text, assignment) to all levels of student proficiency		Some **adaptation of content** to all levels of student proficiency		No significant **adaptation of content** to all levels of student proficiency	
4	**3**	**2**	**1**	**0**	
6. **Meaningful activities** that integrate lesson concepts (e.g., interviews, letter writing, simulations, models) with language practice opportunities for reading, writing, listening, and/or speaking		**Meaningful activities** that integrate lesson concepts but provide few language practice opportunities for reading, writing, listening, and/or speaking		**No meaningful activities** that integrate lesson concepts with language practice	

Mr. Rafael

Mr. Rafael was new to SIOP, but engaged in learning about it. He chose to approach the unit from the historical perspective of civil rights. He thought he could capture the students' interest with a video of a civil rights activist. Because it was March, Women's History Month, he chose to showcase Harriet Tubman. He reviewed many videos online to find one about her life that was appropriate for his fourth-graders and he checked that the clip would have closed caption options, believing the words on the screen would help his multilingual learners. He found a short biography of her for elementary students and loaded the weblink to his class's learning management system. He identified key terms in the text he wanted to preteach—*activist*, *civil rights*, *slavery*, *protest*, *results*, and *outcome*—and prepared a worksheet the students could complete that included a word bank for students to use if needed.

He decided it would be fun for the class to write a short play about a problem in their community and perform it like reader's theater as their project. He knew the importance of practicing reading, writing, listening, and speaking and felt he could assign roles to students based on their language levels. The class had read a scene from a play in language arts in the fall, so they were familiar with the genre. His plan for the unit was to introduce the local problem–solution concept on the first day, select a topic for the play and begin writing on day two, continue writing on days three and four, and maybe five, and then rehearse and perform on day six. He would record the performance.

As he considered the two social science standards that he had to address, he realized that one could be the content objective for the unit and the other could be the language objective. He rewrote them slightly in this way:

> Content: SW explain individual approaches people have taken, or could take in the future, to address local or national problems, and predict results of those actions.
>
> Language: SW write about problems and solutions using reasoning, correct sequence, examples, and details with relevant information in a play.

When class began on the first day, Mr. Rafael had trouble loading the video clip on the computer and displaying it on the whiteboard. When it was finally streaming, seven minutes had passed, so to save time, he skipped sharing the objectives with the students and decided to highlight some key vocabulary as he quickly talked about Harriet Tubman. He explained their unit was about problems and solutions. He asked who had heard of Harriet Tubman and several students raised their hands. He acknowledged they knew of her work with the Underground Railroad, but now they would look at her actions in terms of problems and solutions. As he introduced the video clip, he introduced the key vocabulary orally by mentioning that she was an activist and worked on civil rights to end slavery and promote women's right to vote.

Mr. Rafael passed out the worksheet with basic questions about problems Harriet Tubman confronted and ways she solved them. He encouraged students to pay attention to the video and turned on the closed captions in English. After they watched the 6-minute clip, he instructed students to try to answer the questions, encouraging them to work with a partner, if desired. After five minutes, he

explained that like good historians they would look at another source for information and had students bring up the article about Tubman on their tablets. He called on one student after another to read paragraph by paragraph aloud. As needed, he explained unknown words and helped with pronunciation. When they finished, he had the students continue with the worksheet. After he noticed most students were done, he went over the answers with the whole class. To wrap up the lesson, he asked the students to share with a partner one way Harriet Tubman made a difference.

The next day, Mr. Rafael explained his idea for the project and showed the students the content and language objectives for the unit. He next displayed the Big Question: "What is a problem at school or in our community? How could changing

FIGURE 2.12 **Lesson Preparation Component of the SIOP® Model: Mr. Rafael's Lesson**

4	3	2	1	0	
1. **Content objectives** clearly defined, displayed, and reviewed with students		**Content objectives** for students implied		No clearly defined **content objectives** for students	
4	**3**	**2**	**1**	**0**	
2. **Language objectives** clearly defined, displayed, and reviewed with students		**Language objectives** for students implied		No clearly defined **language objectives** for students	
4	**3**	**2**	**1**	**0**	
3. **Content concepts** appropriate for age and educational background level of students		**Content concepts** somewhat appropriate for age and educational background level of students		**Content concepts** inappropriate for age and educational background level of students	
4	**3**	**2**	**1**	**0**	
4. **Supplementary materials** used to a high degree, making the lesson clear and meaningful (e.g., computer programs, graphs, models, visuals)		Some use of **supplementary materials**		No use of **supplementary materials**	
4	**3**	**2**	**1**	**0**	**N/A**
5. **Adaptation of content** (e.g., text, assignment) to all levels of student proficiency		Some **adaptation of content** to all levels of student proficiency		No significant **adaptation of content** to all levels of student proficiency	
4	**3**	**2**	**1**	**0**	
6. **Meaningful activities** that integrate lesson concepts (e.g., interviews, letter writing, simulations, models) with language practice opportunities for reading, writing, listening, and/or speaking		**Meaningful activities** that integrate lesson concepts but provide few language practice opportunities for reading, writing, listening, and/or speaking		**No meaningful activities** that integrate lesson concepts with language practice	

it make a difference?" and restated some responses students made the day before about Harriet Tubman. He then asked the student pairs to discuss the question and generate a list of school and community problems which he recorded on chart paper. When they reached ten items, he stopped the discussion and asked students to vote. No item got a majority. He spent a few minutes talking about voting by majority versus plurality and also asked students to think which idea might make a good play. Then he crossed off all but the three items with the most tallies and had the class vote again. The winner was "trash in the river."

Mr. Rafael shared his plan for the play to have three acts: one to tell the problem, one to identify solutions, and the third to resolve the problem and show the outcome. Each act would be written by a different group of students. He assigned students to the groups, making sure to divvy up his multilingual learners among them. The students had many questions: who would be the actors, what are the characters' names, is it a story or real life, and so on. Mr. Rafael pointed out these were good questions that they had to answer before they started writing and led a class discussion to design the outline of the story they would tell. Not all the students participated in the discussion but those who did had many different ideas. He tried to capture them on the board and redirected the discussion multiple times to focus on the problem-solution-outcome frame, but no decision was reached when the class had to go to lunch. Mr. Rafael asked the students to chat with each other at lunch and think about it overnight. They could share ideas with their family too. Tomorrow they would decide.

Check your understanding: On the SIOP form in Figure 2.12, rate Mr. Rafael's lesson on each of the Lesson Preparation features.

Discussion of Lessons

Review your rating form and think about the reasons you scored the lessons as you did. Look for evidence in each scenario. Read on to see our analyses.

1. *Content Objectives Clearly Defined, Displayed, and Reviewed with Students*

   Ms. Levine: 4

   Mrs. Basobana: 0

   Mr. Rafael: 1

- **Ms. Levine** planned her unit content objectives in advance and sequenced them so students would have enough knowledge to be successful on the unit project. She wrote the content objectives on the whiteboard and she clearly, explicitly, and simply stated them in a manner that was comprehensible to her students on both days. She also connected the objectives to the unit's Big Questions. She used the text about Bellen and the graphic organizer to help her students meet the objective. Her lesson received a "4."
- **Mrs. Basobana** wrote the activities for the week but did not present them to the students as objectives, nor did she share an overview of the unit. The activities relied on her active involvement. Without any modeling or scaffolding, the students struggled to read the newspaper articles to identify local problems.

She tried to generate a class discussion about a problem but few students participated. Without providing objectives and setting the stage for the unit, her multilingual learners and others had difficulty understanding the purpose of the activities they were asked to do. The sketching activity at the end of the second day was disconnected from the newspaper task. Her lesson was rated "0" for this feature, but could have been improved by writing and presenting the objectives to the students, providing instruction, modeling the newspaper task, and making sure the activities aligned to the learning goal.

- **Mr. Rafael** wrote only one content objective for the unit and it was a restatement of the state standard. This was much too broad for this unit and impossible to accomplish in one lesson. Further, he failed to share it with the students on the first day, opting to jump into the first activity without setting a learning goal for the class. His multilingual learners would not know what was expected of them, and if they were unfamiliar with the biography of Harriet Tubman, they were at a disadvantage. Although he did read the objective aloud at the start of the second day, he did not connect what they did the day before with the objective. If he had unpacked the standard into manageable learning chunks for each lesson and introduced them to students each day, the students would have had a better chance of success. His lesson received a "1."

2. *Language Objectives Clearly Defined, Displayed, and Reviewed with Students*

   Ms. Levine: 4

   Mrs. Basobana: 0

   Mr. Rafael: 1

- **Ms. Levine** wrote the language objectives on the whiteboard and reviewed them with the students. She planned opportunities for students to meet the objectives by teaching key vocabulary, introducing the story with a text walk, modeling the graphic organizer, and grouping the students appropriately with differentiated materials. By the end of the two days, the students were able to meet the gist of the objective: read a problem-solution text and write a summary. Those students at beginning levels of English were also able to succeed because she worked directly with them. At the end of the lesson, she orally reviewed the language objectives for the students. Her lesson was rated a "4."
- **Mrs. Basobana** did not include any language objectives in her lesson plan, although it had many opportunities for language learning, such as reading a newspaper article to find the answers to the discussion questions, or having students use persuasive language to argue for or against the choice of a problem. She did not discuss the meanings of the key terms nor did she encourage her students to participate in the discussion. Mrs. Basobana mostly conveyed information orally, and she did all the writing. The lesson would have been more effective if she planned a language objective and provided some instruction and an activity to support it. Her lesson received a "0."
- **Mr. Rafael** had a language objective, but to save time, he did not present it to the students until the second day. As with the content objectives, this decision meant the students did not know what they were going to learn during

the first lesson. Further, the language objective was also a restatement of a state standard, not suitable for an individual lesson. The first day could have focused on listening skills to identify problems and solutions in Harriet Tubman's life and the second day could have focused on one or more elements of the play, including plot, character, and setting. His lesson was rated a "1."

3. *Content Concepts Appropriate for Age and Educational Background Level of Students*

   Ms. Levine: 4

   Mrs. Basobana: 4

   Mr. Rafael: 4

   In the scenarios each of the fourth-grade teachers, **Ms. Levine, Mrs. Basobana,** and **Mr. Rafael,** planned a unit to address a local problem, potential solutions, and possible outcomes. The content concepts were appropriate because they are congruent with the fourth-grade state standards for the social studies curriculum. Each lesson was rated a "4."

4. *Supplementary Materials Used to a High Degree, Making the Lesson Clear and Meaningful*

   Ms. Levine: 4

   Mrs. Basobana: 0

   Mr. Rafael: 2

- **Ms. Levine** used a number of supplementary materials to make the content more accessible to the learners: the article about Bellen Woodard, texts about other youth activists at different reading levels; a differentiated graphic organizer, photos, bookmarked websites, and a video clip about Bellen. Her lesson received a "4" on this feature.
- **Mrs. Basobana** had print and online news articles for the students but failed to ensure that the texts were accessible and meaningful to the fourth-graders. She did not show any visuals to support student learning. Her lesson received a "0."
- **Mr. Rafael** reviewed several videos about Harriet Tubman and selected one suitable for his fourth-graders along with a biography written for young learners. The video enabled his multilingual learners and other students to connect visually with Harriet's problems and solutions, but he did not preteach any vocabulary that might have helped his multilingual learners understand the audio or the biography text. He did prepare a worksheet to check student comprehension with a word bank for additional support, but he did not include any other supplementary materials (e.g., some pages from a script) that might have helped him explain the unit project—the class play—better to his learners. His lesson was rated "2."

5. *Adaptation of Content to All Levels of Student Proficiency*

   Ms. Levine: 4

   Mrs. Basobana: 0

   Mr. Rafael: 1

- **Ms. Levine** adapted the grade-level content for her multilingual learners in a number of ways. She worked directly with the students at beginning levels of English during the reciprocal teaching activity and prepared a variation of the organizer (SWBBST) for some groups. By arranging reciprocal teaching groups with students of mixed reading abilities and assigning roles according to student skill levels, she supported the multilingual learners who were not yet strong readers. For the project, once the groups were formed, she planned to assign a language buddy to each student at the beginning level of English. Her lesson was rated a "4."
- **Mrs. Basobana** did not adapt the content for her multilingual learners. She relied on local newspapers and oral discussion to convey information. Without scaffolding for the task or defining key vocabulary, her multilingual learners had difficulty participating and likely did not learn much about the key concepts just by listening and reading independently. Her lesson planning did not include any way to adapt the content or text. Her lesson rated a "0."
- **Mr. Rafael** did not adapt the content very much in his lesson. Although he displayed the closed captioning on the video about Harriet Tubman as one adaptation, he did not preteach any vocabulary that might have helped his multilingual learners understand the audio. Nor did he plan ways to support his multilingual learners at beginning and intermediate levels of English to read the fourth-grade level biography and complete the worksheet other than encouraging them to "work with a partner." If he had created different versions of the text, perhaps through Newsela or Rewordify, and taught key terms more explicitly, the opportunities for the students to comprehend the key information would have improved. On the second day, he arranged groups so multilingual learners were distributed with others who might assist as needed, but he did not adapt the task. His lesson received a "1."

6. *Meaningful Activities That Integrate Lesson Concepts with Language Practice Opportunities for Reading, Writing, Listening, and/or Speaking*

   Ms. Levine: 4

   Mrs. Basobana: 0

   Mr. Rafael: 2

- **Ms. Levine** included many meaningful activities in the lesson. The class then worked on a vocabulary categorization activity. Her lesson received a "4."
- Without objectives, language supports, and activities aligned to the learning goals, **Mrs. Basobana's** lesson was not very meaningful for her class. Her plan for students to read newspapers and find local problems was not well-thought-out. The students had too many articles to look through, the articles were written at reading levels above most students' abilities, no vocabulary was taught, and few students participated in the class discussion. She got sidetracked at one point and discussed topics not particularly relevant to the lesson at hand (infrastructure and eminent domain). The voting on paper, tallying, and re-voting wasted time and did not prompt any language

practice, although she could have asked students to present pros and cons for the options, using persuasive language. The sketching activity at the end of the day was busywork. Students did it independently and it was never reviewed by Mrs. Basobana or discussed. The class project in principle could be meaningful and lead to language practice in later lessons, but she did not teach students how to write a news article, did not provide models, and set up an unlikely premise that they would report on something that they imagine would happen in the future by looking back on the outcome from a further future perspective. Mrs. Basobana's lesson received a "0."

- **Mr. Rafael** planned some meaningful activities on the first day of the lesson. He used two sources of information for students to consider problems Harriet Tubman faced and solutions she explored, modeling the disciplinary literacy of history *and* tapping three learning modes (listening, viewing, and reading); however, the students would have benefitted from more language support. The worksheet offered some writing practice and was intended to capture basic facts but could have included more challenging questions that asked students to evaluate Harriet's choices, for instance. On the second day, Mr. Rafael's lesson was less meaningful. The voting for a class problem was teacher-directed and generated little productive discussion practice; and the introduction of the class project was problematic. He gave the students no choice in their groups, he assumed the students remembered what a play was and what elements it contained, and he failed to plan for a class-generated plot, setting, and characters. To his credit, when he realized students needed more guidance, he altered his lesson to try to generate an outline for the play and identification of characters. His lesson was rated a "2."

Final Points

As you reflect on this chapter and the benefits of lesson planning with clear content and language objectives in mind, consider the following main points:

- Lesson Preparation is a critical foundation for delivering a high-quality SIOP lesson. Thoughtful planning leads to effective teaching—but a great plan does not always guarantee a great lesson for multilingual learners. Teachers must plan lessons that are aligned to the grade-level curriculum and based on content standards and learning outcomes, but they must also be culturally responsive to student needs and acutely aware of how well students are learning during a lesson in case adjustments to the plan are needed.
- All SIOP lessons need attention to language with at least one objective devoted to furthering the multilingual learners' academic English development. This should be a learning objective—an achievement target, not an activity—and teachers must teach to it during the lesson.
- If students lack background knowledge and experience with content concepts, effective sheltered teachers provide it through explicit instruction, and they enhance student learning with appropriate supplementary materials. They provide scaffolded support by adapting dense and difficult text.

- SIOP teachers situate lessons in meaningful, real-life activities and experiences that involve the students in reading, writing, and discussing important concepts and ideas.
- The principles of effective sheltered instruction and content-based language instruction should be reflected in teachers' lesson plans. As we explore the other features of the SIOP Model and see how teachers apply other important principles in their classrooms, remember that the first step in the instructional process is comprehensive lesson design.
- In sum, teachers must learn to identify and then teach the academic language of their subject explicitly in their lessons and use a variety of techniques to build background, convey new information to multilingual learners in accessible ways, plan for meaningful tasks that practice and apply the content and language knowledge, and then review what has been learned.

Discussion Questions

1. In reflecting on the learning outcomes in the content and language objectives at the beginning of the chapter, are you able to:
   a. Identify content objectives for multilingual learners that are aligned to state, local, or national standards?
   b. Incorporate supplementary materials suitable for multilingual learners into a lesson plan?
   c. Apply knowledge of students' educational background and skills to adapt content to their language proficiency and cognitive levels?
   d. Generate language targets for multilingual learners that align to standards and address how language is used in academic settings?
   e. Discuss advantages of including both language and content objectives in a lesson and sharing the objectives with students?
   f. Explain the importance of meaningful academic activities for multilingual learners?
   g. As part of a lesson plan, write content and language objectives linked to standards and the lesson topic?
2. What are some advantages to writing both content objectives and language objectives for students to hear and see? How might written objectives affect teacher and student performance in the classroom?
3. Think of a lesson you have recently taught or one you might teach. What would be an appropriate content objective and language objective for that lesson?
4. In many schools, one ELD teacher supports multilingual learners from several classrooms, sometimes across different grade levels. How can the ELD and grade-level or subject-area teachers collaborate to share the responsibility for teaching both language and content objectives to these students? Try this: Co-plan a mini-unit in which some lessons will be taught by the ELD teacher and others by the grade-level classroom teacher or the secondary subject-area teacher. (More information on co-planning is found in Chapter 11.)

5. Many teachers rely on mini-lectures or textbook chapters for teaching key concepts. Think of a curricular area (e.g., science, language arts, math, social studies) and discuss some meaningful activities that could be used to teach a concept in that area. What makes each of these activities "meaningful," and how would they provide language practice?
6. Begin writing a SIOP lesson. Identify the topic and your content and language objectives. Find or create supplementary materials and adapt content as needed. Determine at least one meaningful activity the children can engage in during the lesson. Decide how many class periods will be needed to complete the lesson. When you finish, share your initial lesson plan with a colleague and solicit feedback. Revise your lesson.

CHAPTER

7

Practice & Application

CONTENT OBJECTIVES

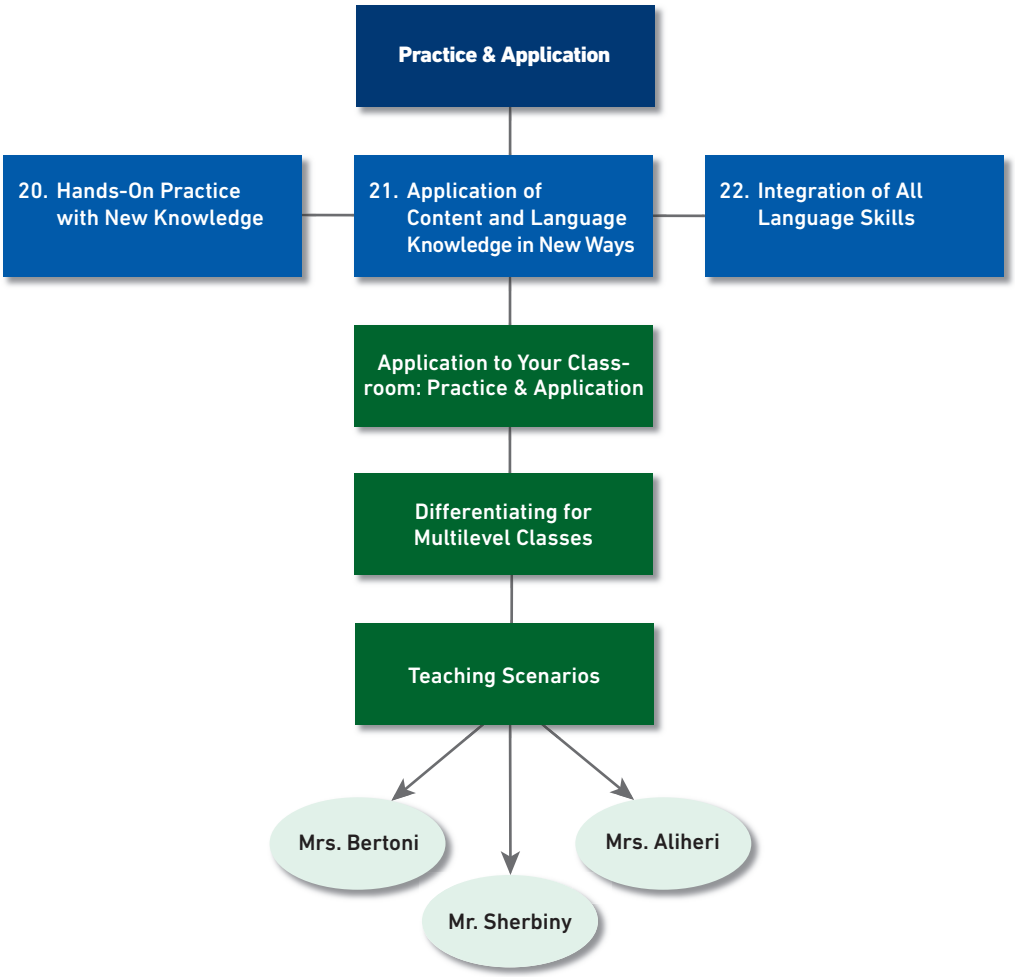
This chapter will help you to . . .

- Identify a variety of ways for students to strengthen their learning through hands-on or kinesthetic practice.
- Create application activities that extend the learning in new ways and relate to content or language objectives.

LANGUAGE OBJECTIVES

This chapter will help you to . . .

- Enhance typical lesson tasks so that different language skills are integrated.
- As part of a lesson plan, write practice and application activities linked to specific lesson objectives.



One common memory that most adults share is of learning to ride a full-sized bike. Even after riding smaller bicycles with training wheels, most of us were unprepared for the balancing act required for us to not fall down when riding a regular bike. If you had a parent or older brother or sister who talked you through the process, showed you how to balance, and perhaps even held on to the bike while you were steadying yourself, your independent practice time with the big bike was probably enhanced. Talking about the experience, listening to someone else describe it, observing other riders, and then practicing for yourself all worked together to turn you into a bicycle rider. That feeling of accomplishment, of mastering something new through practice and applying it to a bigger bike is a special feeling that most of us have experienced as learners. ■

Background

Up to this point in a SIOP lesson, the teacher has introduced content and language objectives, built background or activated prior knowledge, introduced key vocabulary, identified a learning strategy and higher-order questions for students to focus on, developed a scaffolding approach for teaching the new information, and planned for student interaction. In the Practice & Application component, the students have a chance to practice with the new material, and, with careful teacher oversight, demonstrate how well they are learning it. In the same lesson or a subsequent one, the teacher plans a task so students can apply this new knowledge in various ways. It is well established that practice and application help one master a skill (Dean et al., 2012; Rosenshine, 2012). For SIOP instruction, both the practice and application tasks should also aim for practice of all four language skills: reading, writing, listening, and speaking.

This stage of a SIOP lesson is very important for the academic language development of multilingual learners because learning happens in classes through the use and deliberate practice of oral and written language (Saunders & O'Brien, 2006; TESOL, 2018). Students may interact with others or independently, but in order to develop a high level of proficiency in a new language, they must have opportunities for both comprehensible input (Krashen, 1985) and targeted output (Swain, 1985), namely oral and written practice. When teachers plan these activities carefully,

students benefit (Piazza, et al., 2020). So, as you develop lessons, consider the following:

Purpose of the activity. SIOP teachers need to carefully choose the activities they include in their lessons and ensure they connect to the lesson objectives.

- Some activities must strengthen the students' progress in meeting or mastering the content and language objectives. Suppose a language arts content objective calls for sixth graders to write a conclusion that supports the argument they made, and the language arts teacher instructs on ways to write a strong conclusion. After students practice writing a conclusion to some existing texts, an application activity might have them write a post for the class blog on a current event, such as ways to support refugee families in the community.
- Some activities must advance student proficiency in using English. Many SIOP teachers use sentence stems and language frames to help students articulate their thoughts and ideas while they are completing a task. These frames link to language functions, and activities can be created to encourage more sophisticated use of these frames over time. For example, students may progress from expressing an opinion simply, as in *"I believe that__"* to the more detailed *"In my opinion, __is correct/incorrect because__,"* and finally to the complex form *"The scientist cited in this article claims__, but I would argue that__."* Short and Echevarría (2016) present a range of stems organized by language function.
- Some activities may build foundational language knowledge, especially for young learners who enter school with few pre-academic experiences or secondary school newcomers to the United States who have had significant interruptions in their educational backgrounds (i.e., SLIFE newcomers). Remember that many state standards related to foundations of literacy, like phonemic awareness, are found in English language arts for grades K–5 but not for grades 6–12.

Language of the activity. In the past decade or so, research has shown that students can use their home language to support their classroom activities and deepen their knowledge, both of the content topics and the new language they may be studying (Cummins, 2016; Garcia, Johnson, & Seltzer, 2017; NASEM, 2017). The broader use of home language in the classroom as a resource for learning fits within the SIOP classroom and is an aspect of culturally responsive instruction that can take place in face-to-face and online settings (Jeong, Eggleston, & Samaniuk, 2021).

- Suppose a lesson's content objective is *"Students will be able to explain predator and prey relationships."* When the goal is to deepen content knowledge, bilingual or home language resources and translanguaging may help. Small groups or pairs organized by language background could read texts in English and/or their home language about predators and preys, perhaps focusing on a different ecosystem per group, and then share ideas and ask questions of one another in English or the home language. The groups could then report back on their learning in English.

- When the focus is on English language development, the use of the home language might be more limited or structured. We know that deliberate practice is essential for advancing proficiency in a new language. Language practice is not simply a set of vocabulary terms or substitution drills, it is "a much broader range of activities that lead to fluency, accuracy, and automaticity of specific subskills" (TESOL, 2018, p. 21). So, with a language objective such as *"Students will compare characteristics of two habitats,"* teachers would want to have students practice ways to make comparisons in English. For some students, scaffolds like word banks and sentence frames may be needed to bolster their language production. Multilingual learners might translate these supports to ensure comprehension, but they would be expected to speak or write in English to complete the task.

Differentiation of the activity. If the class includes students spanning multiple language proficiency levels, the Practice & Application component of the SIOP Model is the ideal place to differentiate instruction.

- In the language arts lesson mentioned earlier, the final application activity (writing a blog post) might be differentiated. The teacher might facilitate a whole-class brainstorming of ways to support refugee families. Students share ideas, some of which may come from their home or country backgrounds, and the teacher generates a list. If some students use their home language to suggest an item for the list, the teacher seeks a translation or asks a classmate to interpret. Next, the class selects one idea as a model and discusses reasons in favor of the idea as well as possible counterarguments they might want to oppose. The teacher might review language frames and key words to use in a conclusion. Then, some advanced-level students might write individual blog posts, intermediate-level students might write with one partner, and beginners might work with the teacher to prepare a group text.
- Teachers can incorporate project-based learning, community-service opportunities, or other differentiated activities that connect to interests, multiple intelligences, home language experiences, and cultural perspectives (Gay, 2018; Paterson, 2021; Seidlitz & Perryman, 2011; Tomlinson, 2014; Vogt, Echevarría, & Washam, 2015; Ye He, & Faircloth, 2018). As teachers plan these practice and application activities, they should consider the structure of the task and degree of difficulty for the resulting product, the grouping configurations, and the type of feedback that will be provided in light of the students' language proficiency levels and educational backgrounds.

> "Practice and Application is where differentiation takes off! Allowing students the freedom to be creative and showcase their learning in a variety of ways allows for all students in the classroom to take pride in their work and show the amazing talents and assets they bring to the classroom."
>
> Andrea Rients, Professional Learning Coordinator, Minnesota

As you read this chapter, you will discover how sheltered language and content teachers provide multilingual learners with the types of hands-on experiences, guidance, and practice that can lead to mastery of content knowledge and higher levels of language proficiency. The teaching scenarios demonstrate how three high school ESL science teachers, who each have classes with newly arrived students with limited formal schooling, designed and delivered lessons on rotation and revolution.

SIOP® **SIOP® FEATURE 20:**

Hands-On Materials and/or Manipulatives Provided for Students to Practice Using New Content Knowledge

As previously mentioned, riding a bike is usually preceded by practicing with training wheels and working with a more experienced bike rider. Obviously, the more practice one has on the bike, the more likely one is to become a good bike rider.

Madeline Hunter (1982), a renowned expert in teaching methods, coined the term *guided practice* to describe the process of the teacher leading students through practice sessions prior to independent application. In her lesson design, new material should be divided into meaningful parts. After each part is introduced to students, they should have short, intense practice periods with the content. New material needs repeated practice at the start. Previously learned materials should be reviewed periodically with additional practice periods. Throughout, Hunter recommended, teachers should give students specific feedback so they know how well they are doing.

When SIOP teachers provide multiple lesson opportunities for students to practice in relevant and meaningful ways, they have a greater chance of mastering content skills and concepts. This is true for all learners, but is particularly important for multilingual learners who have double the work—they are learning the content at the same time they are learning English. One way to support them is by planning tasks that incorporate hands-on experiences with manipulatives or kinesthetic activities.

- Manipulatives can help multilingual learners connect abstract concepts to concrete experiences. These items may be created, counted, classified, stacked, experimented with, observed, rearranged, dismantled, and so forth. They are commonly used in math and science, but are applicable across the curriculum (See Artifact 7.1.). For example, a summary of a book/chapter/video/experiment/speech or steps in any process can be written on separate strips of paper and students work together to put them in order.
- Physical movement likewise helps students put concepts into gestures and poses. Consider a lesson on the signing of the Declaration of Independence. Students could create a tableau where they sit as the members of the second Continental Congress did, at tables according to their colony, and act out the signing of the document.

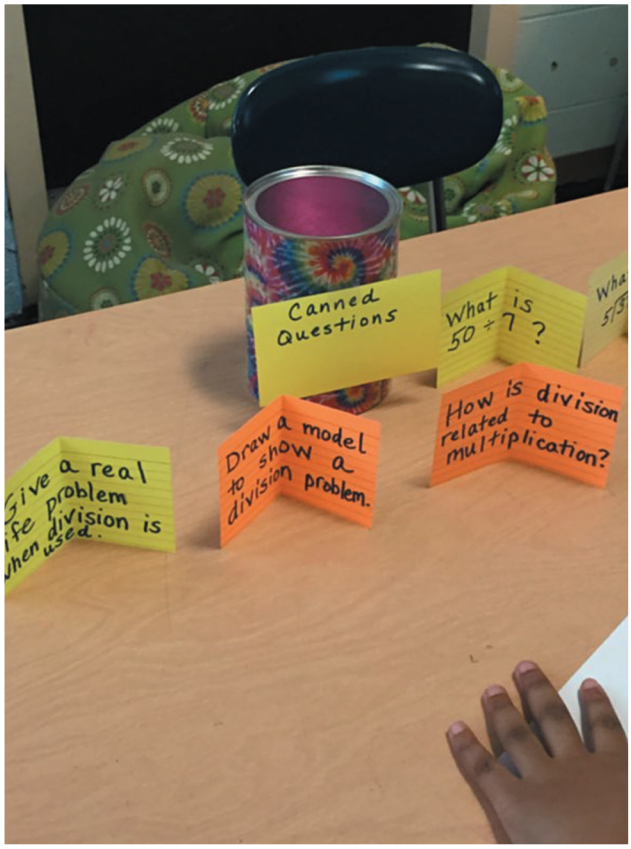
Furthermore, hands-on experiences with manipulatives or kinesthetic activities that require movement reduce the language load for students and are typically more motivating. Students with beginning proficiency in English, for instance, can still participate and demonstrate what they are learning. Multilingual learners may also use their home language while engaging with the activities, although the final product of the task might require English.

Being told how to ride a bike, reading about how to do so, or watching a video of someone else engaged in bike riding is very different from riding down the bike path yourself. Whenever it is possible and appropriate, incorporate hands-on materials and movement into practice activities to boost your students' learning.

ARTIFACT 7.1 Canned Questions

Grade 4 students in small groups pull a "canned question" from the container and respond. Group mates confirm, add on, or give a different answer.

Source: Maggie Brewer, Dual Language Elementary Teacher, Connecticut



On the SIOP rating form, a lesson may receive an N/A for feature #20 if the practice activities have happened in an earlier lesson.

SIOP®

SIOP® FEATURE 21:

Activities Provided for Students to Apply Content and Language Knowledge in the Classroom

We all can recall our own learning experiences in elementary, middle, and high school, and the university. For many of us, the classes and courses we remember best are the ones in which we applied our new knowledge in meaningful ways. These may have included activities such as writing a diary entry from the perspective of a character in a novel, creating a semantic map illustrating the relationships among complex concepts, or completing comprehensive case studies on learners we assessed and taught. These concrete experiences forced us to relate new information and concepts in a personally relevant way. We remember the times when we "got it," and we remember the times when we gave it our all but somehow still missed the target. Hunter (1982) recognized this: "The difference between knowing how something should be done and being able to do it is the quantum leap in learning . . . " (p. 71).

> Although multiple opportunities to practice language are critical for language development, for multilingual learners to be successful academically, they must be able to apply their new language, knowledge, and skills in a variety of ways. Since application activities lend themselves to more engagement, relevance, and higher-order thinking than practice alone, students tend to develop a deeper and more sustained understanding of the language and concepts.
>
> Helene Becker, retired EL Director, Connecticut

When SIOP teachers plan opportunities for students to apply new information to real-life situations, multilingual learners are more motivated and able to deepen their understanding because discussing and "doing" make the content concepts and the language used more relevant. Application can occur in a number of ways; and as mentioned previously, students might use their home language as they engage with the activity, while the final product could be prepared bilingually or in English. Sample activities include

- Write a book jacket synopsis, online review, or blog post for a novel or story read in class or outside of school.
- Generate solutions to real-life engineering problems, such as designing an earthquake-resistant school building or a drought-resistant garden. Encourage solutions that represent multicultural viewpoints.
- Play the role of broadcast news anchor and on-site reporters covering a current event in a country of interest.
- Discuss a scientific theory in class (e.g., "Life exists on a planet in another galaxy.") and then conduct research or write an opinion on the topic in a journal.
- Create a campaign ad, video, or social media posting for an historical leader.

Many teachers have curriculum resources with ideas for activities that apply the content topics being studied, but we must remember that multilingual learners need opportunities to apply their growing language knowledge too. For example, it is recommended that for any application task, these learners be challenged to use newly taught sentence structures, vocabulary, reading strategies, and/or other language skills to engage in and complete their work. When SIOP teachers provide supportive environments, which include scaffolds and models, multilingual learners can produce, practice, and apply new language and vocabulary successfully.

Remember that the art of teaching is guiding students to become independent learners. In Chapter 5 we presented a model for scaffolding that shows how a teacher can gradually increase the students' responsibility for learning and doing, and we argued that collaborative practice and structured conversations along with recursive teaching are important bridging steps between guided practice and independent work. Through collaborative learning, students support one another in practicing or applying information while the teacher assists as needed.

On the SIOP rating form, a lesson may receive an N/A for feature #21 if an application activity will happen in a later lesson.

SIOP®

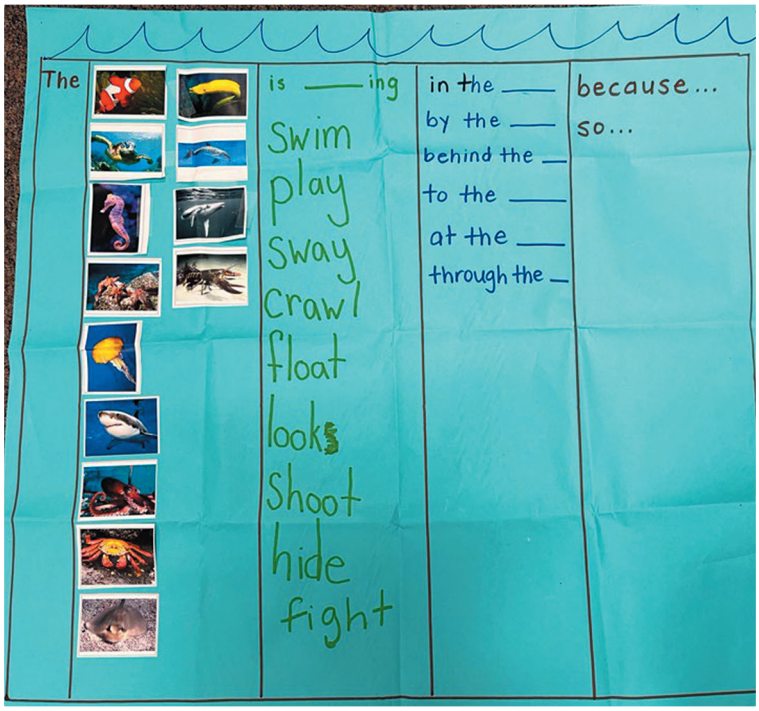
SIOP® FEATURE 22:

Activities Integrate All Language Skills

Reading, writing, listening, and speaking are complex cognitive language processes that are interrelated and integrated. As we go about our daily lives, we move through the processes in a natural way, reading what we write, talking about what we've read, and listening to others talk about what they've read, written, and seen. Most young children become grammatically competent in their home language by age five, and

ARTIFACT 7.2 Oral Language Sentence-Making Chart

Sentence-making chart from a first grade classroom in Oregon with visuals, prepositional phrases, and conjunctions to integrate language practice with content.



their continuing language development relates primarily to vocabulary, more sophisticated grammar usage (e.g., using relative clauses and noun phrases), and functional as well as sociocultural applications of language (e.g., adjusting one's language to a particular audience, developing rhetorical styles) (Peregoy & Boyle, 2017). Proficiency in reading and writing is achieved much later, and differences exist among individuals in levels of competence. Students especially need to learn academic language for school settings where the use of the forms and functions of social language (e.g., simple sentence and question structures) diminish while academic forms and functions (e.g., sentences with embedded clauses and abstract concepts) escalate (see Chapter 1 for a detailed discussion).

Some multilingual learners may achieve competence in the written domains of a second language earlier than in the oral language domains; others may become proficient speakers before they read and write well (August & Shanahan, 2006). But it is important to realize that the language processes—reading, writing, listening, and speaking—are mutually supportive. Although the relationships among the processes are complex, practice in any one promotes development in the others (Baker et al., 2014; Genesee et al., 2006). Research shows that oral and written language can be successfully developed in content area classrooms (Baker et al., 2014; NASEM, 2017).

We also know from research that certain knowledge, skills, and strategies can transfer from multilingual learners' home language to learning and using English. For example, phonological awareness, knowledge of print, listening and reading comprehension skills, and narrative skills that developed through the home language can be applied to English contexts (NASEM, 2017). For that reason, we want to

encourage multilingual learners to use their full linguistic repertoires in our classes (García, Ibarra Johnson, & Seltzer, 2017).

When SIOP teachers create opportunities for multilingual learners to practice and use all four language processes in an integrated manner, they set students up with the means to strengthen their proficiency in English. Throughout the day or class period, effective teachers offer their students varied experiences such as:

- Linking oral discussions of essential questions to reading selections
- Structuring interaction with peers
- Guiding students to use sentence starters and signal words
- Providing students with the chance to listen and react to peers' ideas
- Asking students to write about what is being learned

We do want to clarify two points about language development within the Practice & Application component:

1. Although all identified language objectives in a lesson need to be practiced and applied as the lesson advances, not all language skills that are practiced need to be tied to an objective. In other words, a language objective represents a key skill, language structure, or strategy the teacher plans to teach and intends for students to learn. There may be one domain, for example, that needs attention for a period of time. In a SIOP lesson, the teacher teaches to this objective and assesses, formally or informally, how well students are meeting it. While the objective may focus on one language domain, such as writing, in the course of the lesson, students would have additional opportunities to read, speak, and listen. These should be carefully planned, but need not be assessed in the same way an objective would be.
2. Teachers are sometimes unsure about whether to correct multilingual learners' language errors during practice time. In general, consider students' stages of English language development when deciding whether to correct them. For beginning speakers of English, errors may be developmental and reflect students' home language use (e.g., not remembering to add past tense inflected endings to English verbs). Other errors may deal with placement of adjectives, sentence structure, plurals, and so forth. Research on error correction indicates that impromptu corrections are less effective than setting aside a portion of a lesson to focus on the grammatical forms or usage issues that arise or prompting the learner to self-correct (Lyster & Saito, 2010).

   If errors impede oral communication during a class discussion, you can gently correct students by restating the sentence in proper form. Otherwise, leave the errors alone. If errors are in a written product that is to be displayed, you may want to work with the student to edit it. If you notice, however, that many students make the same error and it does not seem to be due to the language acquisition process, it is reasonable to plan a mini-lesson on the issue for a later class period or provide instruction to a small group while the rest of the class works on another task. What is most important is that you are sensitive to errors that might confuse communication; corrections usually can be modeled in a natural and nonthreatening way.

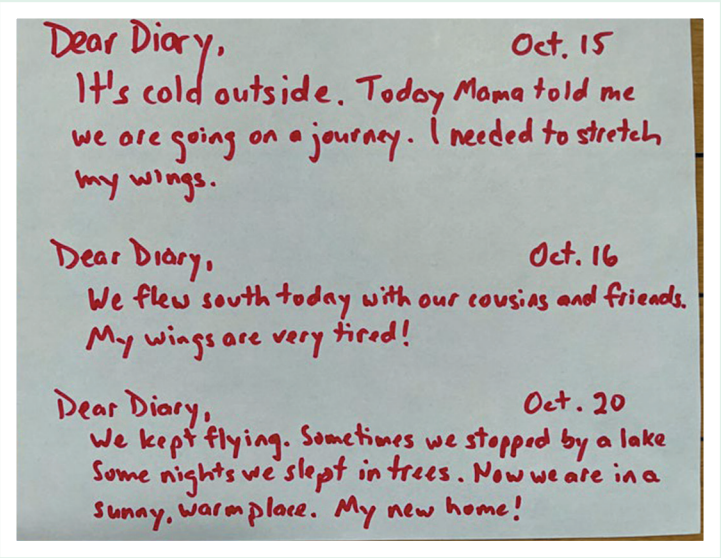
Application to Your Classroom: Practice & Application

In the section that follows, you will find some teaching ideas to help you develop practice and application activities for SIOP lessons:

- **Physical Timeline.** Have students move themselves instead of doing paper-and-pencil tasks for practice. For example, students can form a physical timeline about the Women's Suffrage Movement with their bodies rather than complete a worksheet. Give some students a card displaying a date; others, one displaying an event. The students would organize themselves, first pairing the dates and events, and then forming the human timeline in the front of the room. The date and event partners create a sentence using their terms (e.g., In 1848, the first Women's Rights Convention was held.) and each speaks chorally to the class. To practice more academic language, distribute a few more cards to other students with sequence terms like *"First," "Then," "After That,"* and *"A Few Years Later"* and ask them to find a reasonable spot in the timeline. Then the students in the timeline incorporate the adverbs of time into their explanations as they state their sentences aloud.
- **Games.** Educational, engaging, and fun games provide opportunities to practice or apply new content and language learning. In recent years, popular online game apps and websites, like Kahoot! and Jeopardy have let teachers build game boards to manage the content and language demand. Many allow for differentiation, so less proficient or less knowledgeable students can choose easier questions. More traditional games like Bingo can be used too. For example, students hear a number or word said aloud and then mark its written form on the bingo card; or definitions, synonyms, or antonyms could be read aloud and students would find the corresponding word on the card.
- **Foldables and Cut Paper Shapes.** Folding and/or cutting paper offers a hands-on way for students to organize information. Foldables can be made in various ways. With one foldable type, a sheet of paper is held in a landscape orientation and then folded in half lengthwise (hot dog fold). The front half is then cut into a number of flaps (e.g., three), with the cut going up to the fold. On the outside front, a key word (e.g., *element, compound, mixture*) may be placed on each flap. When each is lifted, a definition may be written on the top half and a picture may be placed on the bottom half. (For examples, see Zike, 2011, 2013.) Teachers can also cut shapes into pieces and distribute them to students who complete a task on their piece and then work with others to make the whole shape. (See, for example, Piece O'Pizza, in Vogt & Echevarria, 2022).
- **Reader's Theater, Role-Plays, and Simulations.** Students can build oral fluency, reinforce content knowledge, and practice language structures and academic vocabulary through Reader's Theater (Short, Vogt, & Echevarría, 2011, pp. 58–60). Teachers create scripts on particular topics to be performed by small groups of students. The teacher may model the script before the students are assigned roles and perform. Role-plays are more informal, with students taking roles and deciding what they want to say while acting out a fictional, historical, or current event. Simulations may place students in real-life situations and have them work together to solve problems or attain a goal.

ARTIFACT 7.3 Character Diary Model

Character Diary model from a SIOP Science Workshop, Virginia.



- **Character Diaries.** Students take the role of a character from a novel, an historical figure, a person in the news, or an object, such as a piece of legislation seeking to become a law. They create several entries in a diary, writing in the voice of that person/item, and including key events. See an example in Artifact 7.3. Teachers may add other requirements to apply specific language objectives such as use of descriptive language, use of past tense or if-then clauses, or use of a key language frame.
- **Audio and Video Software.** Practice and application tasks can be done in the classroom or at home with a variety of software applications like Flipgrid, Voice Thread, and Screencast-o-matic. These tools allow the teacher and students to make a brief video or audio recording and share with another person who can listen, respond, give feedback, or add on. A major benefit for multilingual learners is the opportunity to practice: a recording can be re-recorded easily if a learner wants to make a change.

Differentiating for Multilevel Classes

The Practice & Application component offers teachers a relatively easy way to meet the needs of students with different abilities or proficiency levels in their classrooms. Consider the six options below when you want to adjust activities for your multi-level classes (Echevarría, Short, & Vogt, 2008; Tomlinson & Imbeau, 2010).

1. **Group with a purpose.** Arrange students by language proficiency, home language, learning style or multiple intelligences, demonstrated ability, perceived ability, or another reasoned way that suits the goal of the activity. Mix groups from

> The great benefit of grouping with built-in roles and accountability is that students have to collaborate in solving problems, which is real world and engages the mind of different kinds of styles of learners, from intra-personal to linguistic to kinesthetic. Plus, for students, it's more fun and motivates them to contribute to the team effort.
>
> Scott Wade, High School Newcomer Academy English Teacher, Kentucky

time to time. Rotate roles so the more proficient students produce work or perform first and thus act as peer models for others.

2. **Differentiate the tasks.** Give each group a similar, yet specifically designed and equivalent task, or design one activity at multiple levels of difficulty, such as the scaffolded cloze shown in Figure 7.1, a vocabulary worksheet with a word bank and a companion one without, or a writing assignment with different required lengths or research sources consulted. Explain each group's assignment clearly, making sure it is as demanding as the others. An "easy" task may be as cognitively demanding to multilingual learners with lower English proficiency as a "hard" task is to English speakers. Remember some tasks can be partially or completely done in the students' home languages.
3. **Provide choice of task.** Allow students to use their strengths and preferences in assignments. Understanding of concepts and information can be expressed through art, drama, poetry, oral or video presentation, creating an e-book, and so forth. Some students may opt for a digital or oral presentation to demonstrate their knowledge rather than a written assignment. Less proficient students may be more comfortable with a mode of expression that involves less speaking or extended writing.
4. **Use motivational strategies.** Learn what will motivate your students to perform to their ability. The following may be considered:
   - *Extrinsic:* Actual, physical rewards (points, homework passes, etc.) for accomplishing a task
   - *Intrinsic:* The mental and emotional "reward" for accomplishing a task
   - *Task engagement:* Positive feeling from being part of something that is stimulating, interesting, and do-able
   - *Cooperative, competitive, individualistic:* The three most common classroom goal structures; each has a role, but cooperative goal structures tend to be the most motivational for students
   - *Ego involvement:* Positive feeling about self when able to complete a task
5. **Use leveled questions to engage all learners.** As mentioned previously in Chapter 5, teachers tend to ask higher-level questions more frequently to high-performing students, and more literal-level questions to low-performing students. Instead, know your students' language levels (beginning, intermediate, etc.). Prepare a hierarchy of questions so that students of all proficiency levels are able to participate—simplify word choice and structure in questions for newcomers and beginners. Allocate turns, monitor turn-taking, and make sure you allow enough wait time for less proficient students to respond. Be sure all students are given the chance to be involved and display language supports like sentence frames to aid students in responding.
6. **Select resources for differentiation.** Find texts at different reading levels or in students' home languages on the same or related topics. Use wordless books or photo journals with newcomers. Bookmark websites in English and home language. Although translation websites are not 100% accurate, they are often

FIGURE 7.1 Scaffolded Listening Cloze Dictation Forms

More Proficient Students

Fill in the blanks with the missing words while the teacher reads a passage aloud. You will hear the passage twice.

Gregor Mendel _____ _____ from parent to _____. This _____ is called _____. Mendel used _____ in his _____ experiments. _____ always _____ with the same form of a _____. In one of his experiments, _____. He put the _____ of tall pea plants on the _____ _____ of the short pea plants. He discovered that _____.

Less Proficient Students

Fill in the blanks with the missing words while the teacher reads a passage aloud. You will hear the passage twice.

Gregor Mendel studied how _____ are passed on from parent to _____. This passing on of traits is called _____. Mendel used _____ pea plants in his heredity experiments. _____ plants always produce _____ with the same form of a trait as the parent. In one of his experiments, he _____ _____ pea plants. He put the pollen from the _____ of tall pea plants on the _____ of the flowers of the short pea plants. He _____ that none of the _____ were short.

useful resources. Family and community members may be able to recommend appropriate home language resources.

Two examples of activities follow:

- **Scaffolded Cloze Activities.** Consider a mixed class with students who speak English and multilingual learners. They are studying genetics. The lesson content objective is *"Students will distinguish between dominant and recessive traits"* and the language objective is *"Students will listen and take notes about Mendel's experiments."* For an activity to practice the language objective, a teacher might plan a listening cloze dictation. The English speakers might record what the teacher says as a regular dictation, but the multilingual learners might have two different dictation forms with more or fewer words already written down. (See Figure 7.1.) All the students listen to the paragraph the teacher reads on Gregor Mendel and the study of genetics, and all participate in the listening task, but the task format is differentiated to the students' English abilities. (Note that cloze activities can be a written activity, too, where students fill in words they generate or draw from a word bank.)
- **Information Gap Activities.** These activities, which include Jigsaws, problem solving, and simulations, are set up so each student (generally in a group) has one or two pieces of information about a topic or event, or to help solve a puzzle, but not all the necessary information to get the full picture. Students must work together, sharing information while practicing their language, negotiating, and critical thinking skills. Teachers differentiate by assigning the amount and complexity of the specific pieces of information to students according to their language proficiency, background knowledge, and interests.

The Lesson

Solar System (Ninth Grade Newcomers)

This lesson takes place over two days in an ESL Science Concepts class for newcomer SLIFE students. The students have experienced limited formal schooling in their home countries (less than six years of instruction), have limited literacy in varieties of English and Arabic, and range in age from 15 to 18. They are immigrants and refugees to the United States from Yemen, Lebanon, Sudan, South Sudan, Syria, and Iraq. They have entered high school but have been placed in a specialized, full-day newcomer program for one year. The goal of this class is to develop science academic language and basic middle school science concepts found in the state science standards so that they can take a high school lab science class next year. They are all considered ninth graders because they have no high school credits yet.

The unit being studied this week is the Solar System. On day one, students learned about the planets and the sun in our solar system. This two-day lesson focuses on the locations and movement of the moon and Earth, particularly revolution and rotation. The final lessons extend this basic understanding so students will be able to explain how the Earth's and moon's motions affect the seasons and the tides. The state science standard is "Describe the cyclic pattern of moon phases, eclipses of the sun and moon, and the seasons, using a model of the Earth-sun-moon system."

Teaching Scenarios

Mrs. Bertoni

Mrs. Bertoni had written the lesson agenda on the board: (1) Check homework. (2) Vocabulary: *moon, revolution, revolve, rotation, rotate, axis*. (3) Read chapter pages 83–84. (4) Discussion. (5) Homework assignment. As the students entered the classroom, she asked them to take out their notebooks so she could check their homework. As she circulated, the students talked quietly to one another in Arabic.

The teacher then turned off the lights in the room. She asked students what this made them think of. Several students said "night." She agreed and asked them what they see at night. They said "stars" and "moon"; some in English, others in Arabic. She explained that today they would learn how the moon moves and how the Earth moves. "If it is night, point to the sky and show me where you see the moon." Most students pointed straight up. She asked if the moon was always there, gesturing up too. One student responded in Arabic and a classmate interpreted, "No, it goes around."

Mrs. Bertoni drew a semicircle arc on the board. She drew a full moon at the end on the left side and added arrows to the arc to show the moon moving to the right. She drew a circle to represent the Earth centered below the semicircle. She said, "The moon moves around the Earth" while pointing to the moon and Earth. She asked the class to repeat the sentence and they did. Then she said, "This movement is called

revolution. The moon *revolves* around the Earth." She pointed to the words *revolution* and *revolve* written on the board and asked the students to repeat "The moon revolves around the Earth." She asked one student with more English proficiency to interpret the sentence into Arabic so all would understand. She then drew a sun on the board and made a circle around it that began and ended with Earth. "The Earth revolves around the sun," she said and students repeated.

Next, she drew a line down the middle of the circle representing Earth to indicate the axis (from 1 o'clock to 7 o'clock if this figure were a clock). She explained the Earth leans to the side a little bit (leaning herself as she said this) and turns around an axis. She gestured to the line and indicated the written word *axis* on the board. As she pirouetted, she said, "This turning is called *rotation.*" She had the students repeat the word *rotation* while she pointed to it on the board. She said, "So the Earth rotates around its axis" and pointed to the word *rotate* as well. Students repeated, "The Earth rotates around its axis." She again asked the student with more English proficiency to interpret this sentence into Arabic so all would understand.

Next Mrs. Bertoni asked the students some comprehension questions like "What revolves around the Earth?" and "What does the Earth do?" She accepted brief answers from her newcomer students, like "moon" and "goes around sun." She added the key vocabulary as labels to the drawings on the board and asked the students to copy the annotated illustrations into their notebooks.

After several minutes, Mrs. Bertoni told the students to open their Earth Science textbooks to page 83. She described the photo of the moon and Earth on the page to them. She then read the first paragraph aloud and explained it more simply to the class. She read the next six paragraphs in the same manner. When done with the text, she posed comprehension questions and called on students who raised their hands to answer.

For homework, she asked the students to reread pages 83 and 84 in the text and write down in their notebook one thing they learned.

When students entered the next day, the agenda was posted: (1) Check homework. (2) Write sentences with new vocabulary. (3) Answer comprehension questions. (4) Discussion. (5) Homework assignment. The students opened their notebooks to show Mrs. Bertoni their homework. She asked two students to read aloud what they had learned. She corrected their pronunciation as they spoke.

Next, students were told to write three or four sentences independently using any of the key vocabulary words from this unit. As students worked, she circulated and corrected their sentences. After 10 minutes, she asked four students to write their sentences on the board. One by one they read them aloud, and Mrs. Bertoni pointed out ways she had helped each student improve the grammar or spelling.

For the next activity, she passed out questions related to sun, Earth, and moon movements and had students write responses. They could use their textbook. She again circulated, pointed to paragraphs in the textbook for students to reread, made corrections, and relied on classmates to interpret for struggling students. This activity took longer than she planned so she asked students to finish the task for homework.

Check your understanding: On the SIOP form in Figure 7.2, rate Mrs. Bertoni's lesson on each of the Practice & Application features.

FIGURE 7.2 Practice & Application Component of the SIOP® Model: Mrs. Bertoni's Lesson

4	3	2	1	0	N/A
20. **Hands-on materials and/or manipulatives** provided for students to practice using new content knowledge		**Few hands-on materials and/or manipulatives** provided for students to practice using new content knowledge		**No hands-on materials and/or manipulatives** provided for students to practice using new content knowledge	
4	**3**	**2**	**1**	**0**	**N/A**
21. Activities provided for students to **apply content and language knowledge** in the classroom		Activities provided for students to **apply either content or language knowledge** in the classroom		No activities provided for students to **apply content and language knowledge** in the classroom	
4	**3**	**2**	**1**	**0**	
22. Activities integrate all **language skills** (i.e., reading, writing, listening, and speaking)		Activities integrate some **language skills**		Activities do not integrate **language skills**	

Mr. Sherbiny (see Figure 7.3 for the full lesson plan)

At the beginning of class, Mr. Sherbiny read aloud the lesson's objectives that were written on the board in English and the class chorally repeated them. He explained them in Arabic, his home language.

> **Content Objective:** I will be able to enact, model, and draw examples of revolution and rotation using the Earth, sun, and moon.
>
> **Language Objective:** I will be able to explain the movement of the Earth and moon orally and in writing using the language frames: "The _____ revolves around the _____." And "The _____ rotates on its axis."

Mr. Sherbiny then introduced key terms on the word wall: *revolve* (v)/*revolution* (n), *rotate* (v)/*rotation* (n), *axis* (n), *move* (v)/*movement* (n), *tilt* (n/v), and *moon* (n). Each word or word pair was written in Arabic and English with the part of speech on a large card, and there was a picture associated with each one as well. Using the visuals, he explained the meaning of the words and had students pronounce them aloud. He then asked students for real-life examples of *revolve, rotate*, and *move*. Some offered examples in English, others in Arabic. He next explained why three of the cards listed both a verb and a noun, pointing out the suffixes *-tion* and *-ment* and the root connection between the words. He associated *axis* to math graphs they had studied. He asked students to think-pair-share what they knew about how the Earth moves and how the moon moves. As was the classroom culture, the students could discuss their ideas in their home language or English.

Using three different sized balls labeled Sun, Earth, and Moon, he guided three students in demonstrating revolution and rotation. First, one student held the sun at the front of the room and a second revolved around the sun, as Earth. The class chorally repeated: "The Earth revolves around the sun. One trip around is a revolution." Then, a third student revolved around Earth as the moon. The class chorally repeated, "The moon revolves around the Earth. One trip around is a revolution."

Next Mr. Sherbiny showed the class how the Earth rotates on its axis and introduced the term, *tilt*. The class chorused, "The Earth rotates on its axis. The Earth is tilted. One turn around the axis is a rotation." He had the moon revolve while the Earth rotated with the axis at a slight angle. Finally, he guided the moon to revolve around the Earth while it rotated and revolved around the sun. The students repeated the demonstrations one at a time, and Mr. Sherbiny asked some comprehension questions of the class, some of which tapped prior knowledge. For example, he asked how long it takes for the Earth to revolve around the sun, and how long for the Earth to rotate. The three students performed each demonstration a final time while the teacher led the class in choral explanations, such as "The moon revolves around the Earth," to model the language frames.

Mr. Sherbiny gave each student group a plastic bag with cut-out pictures of the sun, moon, and Earth. He told the groups to manipulate the objects to show revolution and rotation. He asked students to take turns saying the explanation aloud to their group. He circulated and listened in, sometimes asking comprehension questions, sometimes asking students to stand and act out the movements.

The class next read about rotation and revolution from a section of a science textbook written for low literacy students. Before they started, Mr. Sherbiny asked them to raise their hand when they said or heard *revolution*, *revolve, rotation,* or *rotate*. One student read the first paragraph aloud. A second student read that same paragraph a second time. The teacher asked a question or two after each second reading. Most of the students remembered to raise their hands when the key words were read aloud.

After that, the teacher asked each group to create a drawing to show the sun and the movement of the Earth and moon and to write some sentences using the frames in the language objective. He circulated to check their work, and when he approved it, the students copied the drawing and sentences into their notebooks.

To wrap up, students were then asked to think of things in real life that rotate or revolve. They talked in their groups in English and Arabic. After several minutes, Mr. Sherbiny asked the students to draw their example on the board or act it out. They needed to explain it aloud, and some used English, others Arabic. Some examples that students shared were dances, race cars, running around the gym, and an electric fan. The class then revisited the objectives and students indicated how well they had learned each one, rating them by showing 1, 2, or 3 fingers (*1 = I know the concept well*).

At the start of the next day, Mr. Sherbiny asked student pairs to read the objectives to each other: Partner A would read the content objective, Partner B the language one. As a review, students volunteered to act out the key concepts and terms. The other students guessed what was being demonstrated and shared with a partner.

Mr. Sherbiny wrote the question "Why do we have day and night?" on the board. He paired students and asked them to apply what they learned the day before as they discussed the response. After three minutes, he had students share their ideas with the frame *"We have day/night because . . . "* He then asked for volunteers to try to demonstrate day and night on Earth with the different sized balls.

Next, Mr. Sherbiny distributed the classroom iPads and headsets to the student pairs. He introduced the screencasting app on the classroom iPads. He showed students how to screencast, using a photo he had taken of the sun, moon, and Earth cut-outs and playing audio he had recorded about revolution and rotation. He told the students they would take photos, too, and would record their oral explanations using the app to describe the Earth's and moon's movements. He encouraged them

FIGURE 7.3 Mr. Sherbiny's SIOP® Lesson Plan for Grade 9 Newcomer Science Class

STANDARDS:

Science: Develop and use a model of the Earth-sun-moon system to describe the cyclic patterns of lunar phases, eclipses of the sun and moon, and seasons.

ELD: Multilingual learners communicate information, ideas, and concepts necessary for academic success in the content area of Science.

LESSON TOPIC: Solar System—Earth, Sun, & Moon

OBJECTIVES:

Content Objective: I will be able to enact, model, and draw examples of revolution and rotation using the Earth, sun, and moon.

Language Objective: I will be able to explain the movement of the Earth and moon orally and in writing using the language frames: *"The ____ revolves around the ____."* and *"The ____ rotates on its axis."*

LEARNING STRATEGIES: Think-pair-share, double reading, active listening, summarizing

KEY VOCABULARY: *revolve* (v)/*revolution* (n), *rotate* (v)/*rotation* (n), *move* (v)/*movement* (n), *axis* (n), *tilt* (n/v), *moon* (n), *-tion*, *-ment* (post in English and Arabic)

MATERIALS: vocabulary cards; balls to represent sun, Earth, moon; cut-out pictures of the sun, moon, and Earth, iPads with screencast app, headsets, teacher-made screencast

Day 1

MOTIVATION:

Review objectives with class in English and Arabic.

Introduce science vocabulary on cards with visuals and explain parts of speech. Point out suffixes. Have students think-pair-share ideas about Earth and moon movements and generate examples of new vocabulary in English or Arabic.

PRESENTATION:

Have students hold balls representing sun, Earth, moon to demonstrate revolution and rotation. Start with Earth revolving around sun, then moon revolving around Earth. Have students practice the language frame, *"The ____ revolves around the ____."* Also ask students to repeat *"One trip around is a revolution."*

Show *tilt* and *axis* on Earth and demonstrate rotation. Have students practice the language frame, *"The ____ rotates on its axis."* Ask students to repeat "*The Earth is tilted. One turn around the axis is a rotation.*"

Demonstrate rotation and revolution together. First, Earth rotating while circling sun, then add moon revolving around Earth. Check student comprehension and knowledge of Earth and moon movements.

PRACTICE:

Distribute cut-out pictures of Earth, moon, and sun and have student groups practice rotation and revolution at their tables. Encourage use of the language frames. As needed, have students act out movements to show comprehension.

Have class read science text, using the double reading strategy. Select one student to read a paragraph aloud and then another to reread it. Ask all students to raise a hand when they say or hear *revolution, revolve, rotation,* or *rotate*. Ask some comprehension questions after each second reading.

Have students draw and label diagrams in their notebooks of rotation and revolution. Students write some sentences using the language frames.

REVIEW & ASSESSMENT:

Have students talk with table mates in English or Arabic and generate real-life examples of things that rotate and revolve. Students draw their examples on the board or act them out.

Review objectives. Have students self-assess 1, 2, 3 for each objective. (1 finger I know it well, 3 fingers I don't understand.)

Day 2

MOTIVATION:

Have partners review objectives with each other in English or Arabic.

Ask student volunteers to stand and act out the key concepts and terms. The other students guess what is being demonstrated and share with a partner.

(continued)

FIGURE 7.3 **SIOP Lesson: Mr. Sherbiny's Lesson Plan for Grade 9 Newcomer Science Class *(continued)***

PRESENTATION:

Ask student pairs to apply their knowledge of Earth's movements and explain how day and night occur. Use the language frame: *We have day/night because _____.*

Confirm or elaborate student understanding of the day/night phenomenon.

APPLICATION:

Distribute iPads and headsets, and Earth, sun, and moon cut-outs. Model how to use the iPad camera and the screencast app to make a video recording. Play the teacher-made sample recording. Explain purpose is to summarize what students have learned about revolution, rotation, day, and night.

Have student pairs work on making screencasts. Some may want to record once in Arabic and then again in English.

REVIEW & ASSESSMENT:

Exit Ticket: Have students write one thing they still wonder about.

to use the sentence frames still posted from the day before and add more to their oral explanations about day and night. He explained that they could listen to the recording and re-record if they wanted to improve their speech. Students could record in Arabic but he also wanted them to record in English.

The pairs arranged the cut-outs on the table and began taking photos of them with the iPads. The photos saved automatically to the devices and were easily accessed later within the screencasting app. After the photos had been taken, the pairs then spread out across the room and into the hallway to record their explanations. Mr. Sherbiny circulated and encouraged the students, helping with the app's functions if requested and reminding students of the task.

At the lesson's close, the class reviewed the lesson objectives. Before the students left the classroom, they wrote one thing they still wondered about on a notecard.

Check your understanding: On the SIOP form in Figure 7.4, rate Mr. Sherbiny's lesson on each of the Practice & Application features.

FIGURE 7.4 **Practice & Application Component of the SIOP® Model: Mr. Sherbiny's Lesson**

4	3	2	1	0	N/A
20. **Hands-on materials and/or manipulatives** provided for students to practice using new content knowledge		**Few hands-on materials and/ or manipulatives** provided for students to practice using new content knowledge		**No hands-on materials and/ or manipulatives** provided for students to practice using new content knowledge	
4	**3**	**2**	**1**	**0**	**N/A**
21. Activities provided for students to **apply content and language knowledge** in the classroom		Activities provided for students to **apply either content or language knowledge** in the classroom		No activities provided for students to **apply content and language knowledge** in the classroom	
4	**3**	**2**	**1**	**0**	
22. Activities integrate all **language skills** (i.e., reading, writing, listening, and speaking)		Activities integrate some **language skills**		Activities do not integrate **language skills**	

Mrs. Aliheri

After the students entered Mrs. Aliheri's classroom, she turned on the interactive whiteboard and projected a video clip. The students watched the Earth revolve around the sun and the moon revolve around the Earth while a voice explained what they were seeing. Mrs. Aliheri paused the clip and wrote *revolve* and *revolution* on the side of the smartboard. She then continued the clip and the students watched the Earth rotating and listened to the explanation. After that, the teacher wrote *rotate* and *rotation* on the board. Next, the video showed scenes depicting the four seasons and day and night while the voiceover explained how these phenomena are the result of the Earth's revolution and its rotation. Mrs. Aliheri added *seasons, day*, and *night* to the board as well.

"I'm going to play this clip again without the sound," Mrs. Aliheri said. "When you see a revolution, I want you to raise one finger. When you see a rotation, raise two fingers." She replayed the clip and students indicated their understanding. Several were confused between rotation and revolution so she played the clip again with the sound on.

Next, the class opened their textbooks to read the section on the topic. Mrs. Aliheri used a book from the elementary school because the reading level was lower. Although some illustrations depicted young children, she believed the text was better for the students who lacked literacy. She asked students to read the assigned pages with a partner. She circulated, listened, and occasionally corrected pronunciation. After 15 minutes of the partner reading, she asked some comprehension questions. Mostly the same three students raised their hands to respond.

To wrap up the lesson, she distributed one word card each to nine students: *moon, Earth, sun, rotates, revolves, seasons, day, night, around.* She asked them to come to the front of the room and use some of their cards to make a sentence. This proved confusing, so she had certain students put their cards on the board: *Earth, sun, revolves*, *around*. She moved the cards into the following order: *Earth, revolves*, *around*, *sun* and modeled how to turn that into a sentence orally: *"The Earth revolves around the sun*." She then wrote out the sentence. She called up more students to place cards: *night, day, rotates, Earth*. She asked the class for help forming a sentence, but no one was able to perform the task. She asked one student to move the cards into an order she dictated: *Earth, rotates, day, night*. She stated, *"Because the Earth rotates, we have day and night."* She wrote this and had the class copy both sentences into their notebooks.

As class started the next day, Mrs. Aliheri acknowledged that the writing activity the day before did not work well so she had another activity. She passed out a cloze paragraph about the Earth, moon, and sun with a word bank. She asked students to individually complete the paragraph on the worksheet by adding the missing words. After five minutes she called on a few students in turn to read a sentence from the paragraph aloud. She corrected their terms and pronunciation whenever she perceived a mistake.

Mrs. Aliheri then told the class they would do a pop quiz via Kahoot!. The students enjoyed the online tool's game atmosphere. They signed in on class iPads and began the quiz that she had prepared. At the end, she viewed an online form that indicated how students performed on each question. Of her 10 questions, most of the class only had 3 or 4 correct. She told the students to reread the pages in the textbook. They could work with a partner if they liked.

To wrap-up the class, the students took the pop quiz again using Kahoot! More than half of the class still had fewer than 6 questions correct.

FIGURE 7.5 Practice & Application Component of the SIOP® Model: Mrs. Aliheri's Lesson

4	3	2	1	0	N/A
20. **Hands-on materials and/or manipulatives** provided for students to practice using new content knowledge		Few **hands-on materials and/or manipulatives** provided for students to practice using new content knowledge		No **hands-on materials and/or manipulatives** provided for students to practice using new content knowledge	
4	**3**	**2**	**1**	**0**	**N/A**
21. Activities provided for students to **apply content and language knowledge** in the classroom		Activities provided for students to **apply either content or language knowledge** in the classroom		No activities provided for students to **apply content and language knowledge** in the classroom	
4	**3**	**2**	**1**	**0**	
22. Activities integrate all **language skills** (i.e., reading, writing, listening, and speaking)		Activities integrate some **language skills**		Activities do not integrate **language skills**	

Check your understanding: On the SIOP form in Figure 7.5, rate Mrs. Aliheri's lesson on each of the Practice & Application features.

Discussion of Lessons

Look back at your rating form and think about the reasons you scored the lessons as you did. What evidence is in the scenarios? Read on to see our analyses.

20. *Hands-On Materials and/or Manipulatives Provided for Students to Practice Using New Content Knowledge*

Mrs. Bertoni: 0

Mr. Sherbiny: 4

Mrs. Aliheri: 1

- Although **Mrs. Bertoni** visually modeled the movements of rotation and revolution, she did not have the students use manipulatives or do a kinesthetic task. The one time they used a gesture (pointing to the ceiling to indicate the moon's location) was actually a connection to their prior knowledge. The students were mostly passive while they copied her illustration from the board. Listening to a teacher read is not a practice activity. The first day they had no opportunities to practice using the new words orally, and writing vocabulary sentences and answers to reading comprehension questions on the second day did not meet the goal of this feature. Mrs. Bertoni tried to scaffold the information for the students, using the diagram on the board and paraphrasing the text, but she failed to give them any guided or independent work to strengthen their content learning. For newcomers with limited English skills, hands-on activities would have made the new information more concrete and more meaningful. This lesson received a "0" for providing hands-on materials or manipulatives for practice.

- **Mr. Sherbiny** planned and implemented several hands-on practice activities in this lesson. For example, students used manipulatives in small groups to demonstrate revolution and rotation and practiced language frames to explain the concepts. Later, each group made a drawing to show the movements and shared it with the class. Mr. Sherbiny also asked students to listen for key words and raise their hands when they heard them. They used the manipulatives again the second day for their screencast photos. Therefore, Mr. Sherbiny's lesson received a "4" for this feature. Through multiple repetitions and informal assessments, Mr. Sherbiny was able to determine whether students mastered the content and key vocabulary concepts. Such meaningful practice made concrete what could have been abstract for the multilingual learners.
- **Mrs. Aliheri** tried to involve students through movement by having them signal with fingers when they recognized *rotation* and *revolution* in the video clip. She also tried to have students manipulate word cards to make sentences, but her planning was poor, the explanation of the task was unclear, and so the task was fruitless. If she had narrowed the focus, included cards for all the words needed to make a sentence, distributed cards for only one sentence at a time, and modeled for the students from the start, these newcomers might have had a chance at success. Instead, she assumed too much. These low literate students were not ready to form sentences that she alone had in mind with only a partial set of words and the need to add words, such as *because*. Completing the worksheet the next day did not meet this feature either. Her lesson was rated a "1" for providing hands-on materials or manipulatives for practice.

21. *Activities Provided for Students to Apply Content and Language Knowledge in the Classroom*

Mrs. Bertoni: 0

Mr. Sherbiny: 4

Mrs. Aliheri: 0

- Because this was a multiday lesson and the concepts of rotation and revolution were fairly straightforward, time was available for both practice and application. Despite this, **Mrs. Bertoni's** lesson did not include an application activity. As a result, the lesson also received a "0" on the SIOP protocol for applying content and language knowledge. It is doubtful that the multilingual learners had a clear understanding of concepts or that they could apply what they had learned in any meaningful way on their own. The Day 1 homework assignment—to read the chapter independently and to write one thing they learned—is not an application activity. The Day 2 assignment was a continuation of classwork—answering reading comprehension questions. Both tasks were better suited to in-class work so the teacher could support the emerging English literacy skills of these newcomers. No task applied the language or content knowledge from this lesson to a new concept, real-life situation, or their personal experiences.
- **Mr. Sherbiny's** lesson received a "4" for applying content and language knowledge. After the students demonstrated their understanding of the newly learned concepts through practice, he had them apply that knowledge in several ways. They had to think of real-life examples where something rotates or revolves, they

had to explain the day and night phenomenon using their newly acquired knowledge, and they had to apply their knowledge in making a screencast recording. With these underschooled newcomers, it was fitting as well as culturally responsive to have them work in groups and discuss their ideas, in English and their home language. By permitting the use of the home language, Mr. Sherbiny allowed for translanguaging, especially since students could use words and phrases they had not learned in English yet. He often restated in English what a student had said in Arabic, thus acting as a language model for the class, which advanced the students' language skills.

- **Mrs. Aliheri's** lesson did not have an application activity during this 2-day lesson and so received a "0" for this feature. There were very few opportunities for students to practice their language knowledge orally and none to apply it. The video clip introduced the concepts and the reading reinforced them, but students were not asked to apply the concepts in any new manner. Playing Kahoot! as a quiz was an assessment, not an application activity.

22. *Activities Integrate All Language Skills*

Mrs. Bertoni: 2

Mr. Sherbiny: 4

Mrs. Aliheri: 1

- **Mrs. Bertoni's** lesson on rotation and revolution was teacher directed and focused on information presentation. For the most part, the multilingual learners listened to the teacher—when she was drawing on the board, asking questions, reading aloud, or correcting their work. Some students answered her questions, but she did not make sure each multilingual learner had an opportunity to talk about the new concepts. On neither day did they have an academic discussion, just a teacher-dominated Q & A. The first day, students may have followed along with the reading silently, but since she summarized each paragraph, they did not need to practice reading comprehension skills. The second day they read independently to answer questions, but several struggled and did not finish in the class period. The vocabulary sentence activity gave students a chance to write their own sentences, but they worked alone with only her input. Her lesson received a "2" on the SIOP protocol for integrating all language skills.
- **Mr. Sherbiny's** lesson received a "4" on the SIOP protocol for this feature. Throughout this lesson, multilingual learners were listening, speaking, reading, and writing about rotation and revolution. Mr. Sherbiny gave his newcomers with limited formal schooling repeated practice hearing the new words, using the words and language frames while manipulating representative objects, listening for and reacting to key words when heard (raising their hands), reading the text, writing sentences, and making a screencast recording to summarize what they had learned. The language processes were well integrated into the delivery of the space systems content. He used Arabic to explain and clarify information for these newly arrived adolescents, and he made sure they practiced the English words and sentence frames. The teacher facilitated student-to-student interaction and modeled and checked on appropriate language use.

- **Mrs. Aliheri's** lesson on paper included activities that practiced language skills, but the execution was weak. Students watched and listened to a video about rotation and revolution, but the input was confusing to many. They did some partner reading from the textbook both days, but did not comprehend the material well, as evidenced by the Kahoot! quiz results. She wanted students to manipulate word cards and make some sentences, but she did not scaffold the process, and so none of them were able to complete the task. On Day 1, they copied two sentences into their notebooks and on Day 2 they completed a cloze exercise; both were minimal writing tasks for newcomers. This lesson received a "1" for integrating all language skills.

Final Points

As you reflect on this chapter and the impact that practice and application has on learning, consider the following main points:

- With any type of new learning, students need practice and application of newly acquired skills to ensure mastery of content concepts.
- Activities should be designed to help multilingual learners meet or master the content and language objectives. Use of the home language during practice and application activities can act as a scaffold for completing a task or as a resource for acquiring information. Activities can be differentiated to take into account students' proficiency levels, needs, and interests.
- You should plan a variety of activities and materials that include manipulatives or movement to enable students to forge connections between abstract and concrete concepts in a less language-dependent way.
- When you create application activities to extend learning, be sure to relate the activities to both the language and the content objectives.
- Because students have different preferred learning styles, when teachers use different modalities for instruction and encourage students to practice and apply new knowledge through multiple language processes, they have a better chance of meeting students' needs and furthering both their language and content development.

Discussion Questions

1. In reflecting on the learning outcomes in the content and language objectives at the beginning of the chapter, are you able to:
   a. Identify a variety of ways for students to enhance their learning through hands-on or kinesthetic practice?
   b. Create application activities that extend the learning in new ways and relate to language or content objectives?
   c. Enhance typical lesson tasks so that different language skills are integrated?
   d. As part of a lesson plan, write practice and application activities linked to specific lesson objectives?

2. Compare and contrast the following two teachers' approaches to teaching a lesson on coordinate planes and slope.
   a. One teacher's approach involves a lecture, graphs of lines with differing slopes, and a formula to calculate slope. Students are then tested about their knowledge of slopes by drawing lines on graphs after being given a slope and *y*-intercept.
   b. The other teacher's approach begins with students angling their textbooks to different heights and rolling their pencils down to determine how the angle affects speed. She introduces the word *slope* and asks students to describe bike riding up and down hills. Groups generate ideas as to why knowing a slope is important. She then has the students practice drawing some lines on graphs and explains the formula, $y = mx + b$. Groups then use mapping software to view 3D images of a ski resort and determine the slopes of several ski runs.

   Which approach to teaching this content concept is most appropriate for multilingual learners? How do you know? Be as specific as you can.
3. One way to ensure practice and application of new knowledge is through project-based learning. Develop a unit project that students in one of your courses can build incrementally as the series of lessons progresses over several days or weeks. Identify the steps to completion that students will accomplish in each lesson of the unit. Try to collaborate across departments, such as ESL and history or physical education and science. Plan a culminating presentation or performance that will enhance language practice.
4. Multilingual learners benefit from the integration of reading, writing, listening, and speaking during a lesson. What adjustments and techniques can a teacher use to provide successful experiences for students with limited English language proficiency while they read, write, listen, and speak about new information they are learning? Include specific activities and examples in your answer.
5. English language arts, mathematics, and science teachers are responsible for incorporating rigorous state standards in their instruction. How is it possible to provide direct application and hands-on practice for lessons? What can teachers do to alleviate the conflict between "covering the content" and giving multilingual learners time to practice the language along with the content?
6. Using the SIOP lesson you have been developing, write some activities for students to practice and then apply the key language and content concepts.