

Thinking about Instruction



Standard #1: Learner Development
Standard #2: Learning Differences

LEARNING OBJECTIVES

After reading this chapter, you should be able to:

- 3-1** Describe universal design for learning, including its applications and six principles.
- 3-2** Explain options provided by differentiated instruction, and compare it to universal design for learning.
- 3-3** Describe the key features of response to intervention (RTI) and how it relates to universal and selected interventions.
- 3-4** Explain stages of language acquisition, and provide examples of ways to help English language learners acquire knowledge and skills.

CHAPTER OUTLINE

3-1 UNIVERSAL DESIGN FOR LEARNING

- 3-1a** Applications of UDL
- 3-1b** Six UDL Principles for Designing Instruction for Diverse Learners

3-2 DIFFERENTIATED INSTRUCTION

- 3-2a** Providing Options
- 3-2b** Similarities between Universal Design and Differentiated Instruction

3-3 RESPONSE TO INTERVENTION

- 3-3a** Key Features of Response to Intervention
- 3-3b** Response to Intervention and Universal and Selected Interventions

3-4 PLANNING FOR ENGLISH-LANGUAGE LEARNERS

- 3-4a** Stages of Language Acquisition
- 3-4b** Make What You Present Understandable
- 3-4c** Provide Opportunities for Language Use



Introduction

This chapter, and the following six chapters, focus on instruction. The emphasis is on *how* to teach rather than on *what* to teach. Just as standards are available to guide teachers in choosing the content to be taught, instructional frameworks are available to support teachers in determining best instructional practices for the success of all students. Chapters 3 through 8 include approaches that utilize universal interventions (i.e., strategies, techniques, or methods that will benefit most, if not all, of the students in your class). They are built in right from the start—as part of initial planning. In contrast, selected instructional interventions, accommodations or modifications designed for one or a few students, are added on. Ideas for selected interventions are presented in Chapter 9.

This chapter presents several frameworks to consider when thinking about instruction and planning for student diversity. One is *universal design for learning* and another is *differentiated instruction*. Both approaches address the diversity found in today's classroom by becoming part of a teacher's up-front planning. We will also discuss *response to intervention* (RTI), a district or school-wide approach for matching instructional interventions to student need. The last section of the chapter will focus on planning for English language learners (ELLs). These students have specific learning needs, many of which can be addressed through universal instructional interventions and by strategies that are built in rather than added on later. You'll find that many of these ELL strategies will benefit other students in your diverse classroom.

3-1 Universal Design for Learning

The term *universal design* was first used in the field of architecture. The concept of universal design emerged from the need to construct buildings in a way that provided access to persons with disabilities—for example, individuals who used wheelchairs. As buildings were being retrofitted with options for accessibility, it was noted that many of the modifications benefited people without disabilities. For example, ramps, which are essential for people in wheelchairs, also work well for parents pushing strollers and are handy for people carrying things. Ron Mace developed the idea of designing buildings from the outset to be accessible to everyone (without the need for adaptation or specialized design) and named it *universal design* (Rose and Meyer 2002).

The principles of universal design were next applied to the field of education. Individuals at the Center for Applied Special Technology (CAST) were instrumental in developing educational curriculum materials that provided access to a wider audience. The idea was to build options into classroom materials so that more students would have access to the information and related activities (Rose and Meyer 2002). Orkwis and McLane explained it well when they said, “In terms of learning, universal design means the design of instructional materials and activities that allows the learning goals to be achievable by individuals with wide differences in their abilities to see, hear, speak, move, read, write, understand

English, attend, organize, engage, and remember” (1998).

The development of instructional technology (e.g., voice-activated programs) and the design of curricular materials (e.g., digital textbooks) are examples of applications that provide built-in options to curriculum and learning activities for all students. The educators at CAST created the term **universal design for learning (UDL)** to describe these and similar applications. Rose et al. emphasize that UDL can be implemented without these technologies, however (2010). The key idea is that necessary supports are available to provide all students opportunities to learn. Rose and Meyer (2006, p. xi) point out that “Good teachers make adjustments all the time to accommodate diverse learner needs. The UDL framework helps them do so more effectively.”

3-1a Applications of UDL

You can use the principles of universal design in developing your lessons and activities. When you do so, you build in, rather than add on, alternatives that provide support and choice for all students in your class. For example, building video captions into a lesson may benefit everyone in a noisy classroom—not only individuals with hearing impairments or English language learners. Using a handout with varying print sizes for a seatwork assignment can be beneficial to a student with a visual impairment and provide a choice for other students.

You can build universal design alternatives into your lesson and activity plans in several ways. There are three primary principles, based on neuroscience research, that provide the underlying framework for UDL (National Center on Universal Design for Learning, 2011). Each of the principles addresses a different aspect of the learning process and acknowledges that students come into their classrooms with a wide range of skills, interests, and needs:

1. *Multiple means of representation.* This principle, emerging from the idea that all learners approach learning content differently, emphasizes the need to present information in a variety of ways. For example, when presenting information in a lesson, plan to (at a minimum) say, demonstrate, and write the information. This redundancy allows all students—including those with visual and auditory impairments, those with learning disabilities, and those learning the English language—to access and benefit from the information. When you use visual supports in your lessons or activities, provide verbal descriptions to go with them. Provide written captions for audio materials. Whenever possible, use digital text so that it can be enlarged and changed in other ways to make it more accessible. The following are examples of universal design in presenting information:

- When teaching the steps for dividing fractions, *state the rule*, “When dividing fractions, invert the divisor and multiply.” *Write the steps* on the board. *Show a diagram* of a completed problem. Then *demonstrate* by solving problems on a SMART board while *stating the steps again* and *pointing to them* on the diagram.
- When conducting a lesson about the Vietnam War, the teacher *says* the information, *shows* a written outline on the overhead projector, and passes out a partially filled-out copy of his outline for the students to *write* on as they listen. The teacher also *shows* visual supports (pictures from an Internet site about the war) to illustrate key concepts.

2. *Multiple means of engagement.* This principle addresses the varying ways that students respond to the topics and information they are learning. There are a variety of factors that influence how students react to instruction, some



Photo 3.1 In this third-grade lesson on the Boston Massacre, the teacher keeps students engaged through variety. Students complete an art project (making paper hats), write notes, and use an iPad to learn.

of which are perceived relevance, background knowledge, and cultural experiences. Using a variety of techniques to motivate students can be very effective (see Photo 3.1). Keep students engaged in learning by providing variety in supports or scaffolds. This variation will help challenge individuals appropriately. Techniques for maintaining student engagement include planning various student groupings (e.g., partner groups, skill groups, peer tutoring), using a variety of lesson models, incorporating students' interests into lessons and activities, and helping students understand the value of what they are learning and how it applies to life outside of school. The following are examples for engaging students:

- Give students opportunities to follow their individual interests by providing choices, such as copying popular music lyrics to practice handwriting.
- Allow flexibility in practice activities (e.g., working independently or with peers), as it can be helpful to draw in some students.

3. *Multiple means of action and expression.* This principle emerges from the idea that students vary in how they physically navigate a learning environment as well as how they are able to show what they know. When asking students to express their learning, include every student by providing alternatives, such as saying or recording, writing, typing, drawing, or demonstrating

the response. Word-processing programs provide students with many supports, such as grammar and spelling checks. Students who are unable to make oral presentations may create multimedia presentations. Supply computer graphics as an alternative to hand drawing for students with physical limitations. Decide whether you will select the response type for individuals or allow students to freely choose. The goal of this principle is to allow students to respond using their strengths. The following are suggestions for providing alternatives for student responses:

- When responding to a math fact question—“What is 4 times 3?”—allow variety in student response types, for example, writing the answer, saying the answer, or pointing to the answer on a number chart.
- At the conclusion of a series of lessons on Native American history of the 1800s, provide flexibility in how students will demonstrate their knowledge. Taking a written test or putting together a portfolio of assignments that meet unit objectives are examples.

Example 3.1 shows an example of incorporating universal design into a lesson on identifying the parts of a story.

EXAMPLE 3.1: AN EXAMPLE OF USING UNIVERSAL DESIGN FOR LEARNING

FOR TEACHING THE IDENTIFICATION OF THE BEGINNING, MIDDLE, AND END OF A STORY

Multiple Means of Representation

The teacher will

- Act out a simple story holding signs that identify the three parts: beginning, middle, and end.
- Tell a story and verbally label the three parts.
- Draw a story as a cartoon strip with three squares.
- Show a written story with the three parts highlighted in different colors.

Multiple Means of Engagement

The teacher will

- Use stories about the students in the class and familiar or humorous events.
- Provide a template/graphic organizer to be used when students are asked to write, tell, or sort.

- Provide word banks of important words from the stories to be used when students are asked to tell or write.
- Ask students to set a goal for number of practice tasks completed correctly.

Multiple Means of Action and Expression

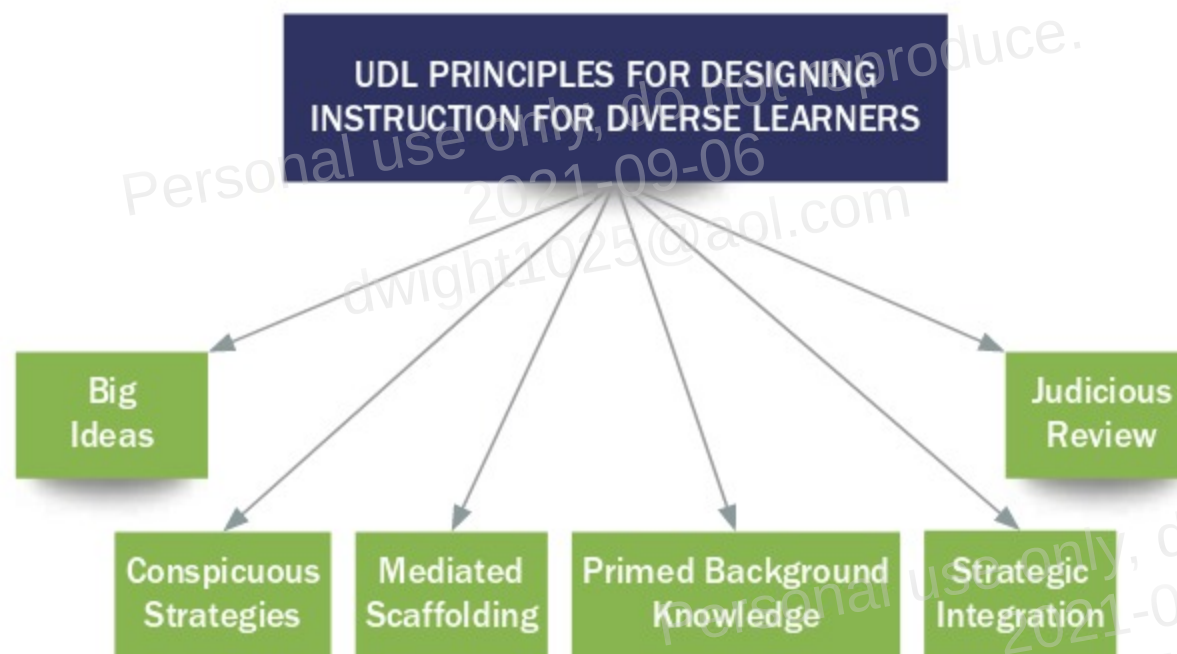
After reading or hearing a story, students will

- Tell what happened in the beginning, middle, and end.
- Sort pictures or sentence strips representing the beginning, middle, and end.
- Write what happened in the beginning, middle, and end.
- Write what happened in the beginning, middle, and end using a handheld talking dictionary for reading/writing support.
- Sort pictures or sentences, on the computer, representing the beginning, middle, and end.

3-1b Six UDL Principles for Designing Instruction for Diverse Learners

Coyne, Kame'enui, and Carnine (2007) discuss six universal design principles that help students gain cognitive access to the curriculum. These principles were developed to guide the design of curricular materials, but many of the ideas can be applied as you develop lessons and activities. When these principles are built into lessons and activities, they provide support for students with a wide variety of learning needs. The principles, shown in Figure 3.1, are as follows:

1. **Big ideas** are the fundamental concepts and principles in an academic area that help connect or “anchor” the smaller ideas. Big ideas help teachers decide what to teach, select and sequence objectives, and focus on important learning outcomes (see Chapter 1). Big ideas also help students make connections and focus on the most important ideas. Consider big ideas as you design the opening to lessons and activities. When presenting information, summarize and emphasize key points by referring to big ideas. The following are examples of big ideas:
 - The interactions of humans with their environments shape the characteristics of both people and the environment.

Figure 3.1 UDL Principles for Designing Instruction for Diverse Learners

- People read to be informed and to be entertained.
- Writing is a process.

2. **Conspicuous strategies** are the steps for solving a problem or accomplishing a task. When you teach strategies explicitly, they become clear and usable for students. When preparing a task analysis, give it a name and list the steps of the strategy. During the lesson, state, list, explain, and model the strategy by using “think-alouds.” In extended practice, provide opportunities to use the strategy in varied applications. The following are examples of using conspicuous strategies:

- During a lesson on how to write a capital letter *M*, the teacher says the steps out loud: “I start by putting my pencil on the headline. I draw a line straight down to the foot line,” and so on.
- After learning about how to develop and use mnemonics for memorizing information, give students chances to develop mnemonics in geography (the names of the great lakes), science (the steps in the scientific method), and other content areas.

3. **Mediated scaffolding** is the temporary support and assistance provided by the teacher, the materials, or the task during instruction. Provide varying levels of supports, and gradually withdraw them. This allows each student to be

successful during instruction and eventually become independent. Mediated scaffolding can include sequencing examples and tasks from easy to more complex; moving from whole group, to partner, to individual practice; and providing varied materials (such as note-taking guides) to help students learn. The following are examples of using mediated scaffolding:

- In the math unit where students are learning about adding up to three digits and three digits with regrouping in the ones and tens columns, students are first taught how to regroup in the ones column and then how to regroup in both the ones and tens columns.
- During a lesson where students are learning how to summarize, the teacher provides them with opportunities to practice first as a whole group, then with a partner, and then alone.

4. **Primed background knowledge** is the recalled prerequisite skills and knowledge needed for learning the new task. Having the necessary background knowledge and applying it to the new task is required for success in learning. List the prerequisites in the content analysis. Assess the students’ prior knowledge and then remind, review, and develop background knowledge as needed. The following are examples of using recalled background knowledge:

- Suppose that a teacher intends to teach her students how to write a persuasive essay, five

paragraphs in length. She plans to concentrate on the persuasive elements of the essay, so she first checks to see that her students remember the main components of a paragraph and the specifics of writing a five-paragraph essay.

- To identify examples of racial stereotyping in their social studies and other texts, and in chapter books, students are first taught to define racial stereotyping and identify instances in controlled examples.

5. Strategic integration involves putting together essential information and skills, which leads to higher-level thinking skills. As part of your long-term planning, be sure to plan lessons and activities in combinations that will lead to integration. The following are examples of such integration:

- As a culminating activity for a unit on nutrition, students designed an informational brochure for teen parents. The brochure included the following information: specific types and amounts of nutrients that infants and toddlers need, foods that are high in particular nutrients, simple recipes that are packed with nutrients, and why nutrients are important (impact on development).
- The civics students put together events and activities designed to ease tensions between different “groups” at school. The planning of these events caused students to draw on a wide variety of concepts that were taught in their class. Some of the key ideas that were incorporated into their planning included learning about and appreciating cultural variation, anti-bullying, and ally-building. These ideas were all woven throughout a series of events that helped students be more accepting of each other.

6. Judicious review provides opportunities for students to review important learning. Carefully planned review will help students remember and apply what they have learned. Include review in the openings and closings of lessons and activities, and build in extended practice and activities. The following are examples of reviewing:

- After teaching a lesson on how to put a heading on a paper, the teacher follows up by reviewing the essential elements for the

heading. Then he instructs his students to write headings on their papers in math, social studies, and science.

- In the opening of a lesson on proper nouns, the teacher reviews what students already know about nouns in general as well as common nouns.

In summary, as you design lessons and activities, ask yourself if you are building in multiple methods for presenting, keeping students engaged, and allowing for multiple means for students to respond. Also ask yourself if you are incorporating big ideas, explicit strategies, scaffolding, primed background knowledge, integration, and review in such a way that all students can achieve the objectives. Teacher Checklist 3.1 will help you apply the general guidelines and principles of universal design for learning as you develop lessons and activities.

TEACHER CHECKLIST 3.1 : APPLYING UNIVERSAL DESIGN FOR LEARNING

General Guidelines

- ✓ Am I providing multiple means of representation?
- ✓ Am I providing multiple means of engagement?
- ✓ Am I providing multiple methods for action and expression?

Principles

- ✓ Am I referring to the big idea that overlays or anchors the lesson/activity?
- ✓ Am I making the steps explicit for the strategies and procedures that I’m teaching?
- ✓ Am I building in scaffolds and supports for student success in the lesson/activity?
- ✓ Am I planning to activate or build the background knowledge that will help students learn?
- ✓ Am I planning for the integration of knowledge and/or skills from various lessons and activities?
- ✓ Am I planning for the future review of important knowledge and/or skills?

Professional Resource Download



3-2 Differentiated Instruction

Differentiated instruction is another approach or philosophy of teaching with the goal that all students will learn and is supported by the implementation of universal design for learning (Hall et al. as cited in Gargiulo and Metcalf 2017). This type of instruction begins with the assumption that students in a class will vary in their readiness for a particular learning task and in their personal interests, preferences and skill levels. “At the most basic level, differentiating instruction means ‘shaking up’ what goes on in the classroom so that students have multiple options for taking in information, making sense of ideas, and expressing what they learn. In other words, a differentiated classroom provides different avenues to acquiring content, to processing or making sense of ideas, and to developing products so that each student can learn effectively” (Tomlinson 2005, p. 1).

Differentiated instruction also emphasizes the importance of teaching toward important learning outcomes (i.e., crucial concepts and principles, big ideas), assessing each student’s prior knowledge and progress, determining student interest, maintaining high standards, and challenging each student. Gargiulo and Metcalf (2017) point out that differentiated instruction offers teachers flexibility in how they deliver instruction, how they plan activities, and how they assess their students. Teachers who differentiate provide specific alternatives for students to learn deeply and quickly, use a variety of instructional strategies and approaches, and understand what makes up powerful curriculum and effective instruction (Tomlinson 2014). This flexibility provides teachers with many opportunities for creativity as well.

3-2a Providing Options

Differentiated instruction is possible by providing options in content, process, and product:

1. *Content* is what is taught. Differentiating content means flexibility in choosing curriculum topics—for example, selecting content that is personally meaningful to students (Heacox 2002)—and incorporating big ideas (OSPI 2005). It also means flexibility in providing access to what we want students to learn (Tomlinson 2005). The three guiding themes in differentiating content are student readiness, student

interest, and student learning preferences. This means that teachers must routinely assess what students already know and what interests their students have, and they must provide multiple ways of presenting information. The following are examples of providing differentiated content:

- As part of a unit on famous U.S. inventors, students are given an assignment to write a report on an inventor. They are given their choice of which inventor to write about rather than being assigned a particular one.
- When the teacher writes the story problems for math, she includes problems that address occupations of the parents of the students in her classroom. For example, if a teacher has students from dairy farms in her class, she could write problems such as “If the average milk production of a Guernsey cow is about 5 gallons a day, how many gallons of milk will be produced in a week on a farm where 86 cows are milked each day?” She writes different problems for students who come from logging families. It is hoped these types of problems will grab student interest.

2. *Process* means sense-making or, just as it sounds, an opportunity for learners to process the content or ideas and skills to which they have been introduced (Tomlinson 2005, p. 79). Flexible groupings, cooperative learning activities, and hands-on activities are all examples of techniques that teachers can use to provide options for processing the information that has come to students. The following are specific examples:

- Some students construct models of the heart to increase their understanding of heart anatomy. Others read about and examine diagrams of heart anatomy. Some students orally explain heart anatomy to a peer.
- Students explore the concept of fractions and work with fraction manipulatives individually, in pairs, or in heterogeneous groups.

3. *Product* means the end result of learning—that is, what students will do to show you that they know. A key idea here is that students are given options when it comes to demonstrating what they know. Models, presentations,

portfolios, tests, and demonstrations are all examples of products. The following are specific examples:

- When students are learning about the impact of the stock market crash in 1929, they are given the choice to do an oral presentation with charts, a written report, or a PowerPoint presentation.
- To test students' knowledge of term definitions in science, students are given the choice to say the answers into a voice recorder or write them in the test booklet.

When a teacher uses differentiated instruction, she uses flexibility in her teaching. Teachers can use differentiation in various subject areas, units, or tasks for individuals or small groups by varying materials, pacing, activities, grouping, scaffolding, products, and so on (Tomlinson 1999; Pettig 2000). These choices and options increase the probability that all students will learn.

3-2b Similarities between Universal Design and Differentiated Instruction

You have undoubtedly noticed that the concepts of universal design for learning and differentiated instruction have numerous elements in common. The idea behind both philosophies is the same: Students in classrooms are all different, and therefore, a single approach to teaching and learning is neither appropriate nor effective. Neither approach is the same as individualized instruction, but both approaches are meant to make learning possible for all students. Their relevance to diversity responsive teaching is obvious.

The concepts of universal design and differentiated instruction have their roots in two different areas of education. Universal design was originally thought of as something specific to special education because it began as a way to provide access in the physical environment for persons with disabilities. When these principles were applied to curriculum, it was clear that many students could profit from specific universal design strategies. "The attention of general education has been captured by a compatible philosophy known as differentiated instruction," writes Edyburn (2004, p. 2). It is apparent that although these philosophies started in

Table 3.1 Universal Design for Learning vs. Differentiated Instruction

Universal Design for Learning	Differentiated Instruction
Multiple means of representation	Content
Multiple means of engagement	Process
Multiple means of action and expression	Product

different areas of education, there is a great deal of overlap. The Council for Exceptional Children, for example, refers to differentiated instruction as one of a number of effective instructional practices that help make universal design work (CEC 2005). Table 3.1, adapted from Hall, Strangman, and Meyer (2003), illustrates how the main elements of one approach line up with the main elements of the other.

Both approaches provide for built-in options and flexibility with the intent that students will be successful. Obviously, as teachers plan how to incorporate these ideas into their classrooms, they are thinking about their specific students and what they know about them. The difference between these general approaches and selected interventions is that these options are almost always built in for all students, whereas selected interventions are often added on for one or a few students. Universal design and differentiated instruction are complementary approaches, and both emphasize options. Providing choices for students has a positive impact on student learning (Jolivette, Stichter, and McCormick 2002).

3-3 Response to Intervention

Within the last decade or so, many districts and schools have adopted the **response to intervention (RTI)** model for addressing academic and behavior difficulties encountered by students in school. NASDSE (2008, p. 1) defined RTI as "the practice of providing high-quality instruction and intervention matched to student need, monitoring progress frequently to make decisions about changes in instruction or goals and applying child response data to

important educational decisions.” Crepeau-Hobson and Bianco (2013) describe the general framework of RTI as “revolving around a collaborative, multitiered, problem-solving, and intervention process with ongoing progress monitoring designed to help struggling learners ‘at risk’ of school failure” (p. 145). The focus of RTI is on preventing students’ academic and behavioral difficulties in contrast to the wait-and-see approach that had been used in schools for years.

RTI is a general education initiative that was written into the Individuals with Disabilities Education Improvement Act of 2004 (IDEA), the special education law. It emerged from multiple long-term studies in which it was concluded that nearly every student can learn when differentiated instructional strategies, expert-driven instruction, and scientifically validated curriculum are used in the regular classroom (Humphreys et al. 2008). The initiative came at a time when the numbers of students referred to and served in special education were increasing at what many felt was an alarming and inappropriate rate (President’s Commission 2002). In addition, even though special education was the method of service delivery to more and more students, the academic and behavioral outcomes for these students were not as positive as expected, and this was a concern to many professionals.

RTI began as an attempt to improve the outcomes for students in special education, but it was obvious that outcomes would improve early only if the services provided by general and special education were integrated. “RTI should be applied to decisions in general, remedial and special education, creating a well-integrated system of instruction/intervention guided by child outcome data” (NASDSE 2008, p. 1). So, the primary focus of RTI became students in general education classrooms who were struggling with academic and/or behavior problems and evolved into an initiative designed to benefit all students.

3-3a Key Features of Response to Intervention

While there may not be one single definition of RTI that is used by everyone, the attributes used to describe it are very similar regardless of the source.

School-Wide Screening

School-wide screening is conducted to help identify students who need additional intervention or monitoring in order to be successful in school. Data collected through brief academic assessments are widely used for this purpose. Disciplinary office referrals, attendance, and grades can also provide important information for identifying students who need assistance.

Multilevel Prevention System

A second key feature of the RTI model is the progression of support across a multilevel prevention system: primary, secondary, and tertiary prevention levels. The three levels of support vary in terms of *which* interventions are used as well as *how* they are used. [Note: We use the term **intervention** to mean an educational practice, strategy, curriculum, or program (U.S. Department of Education 2003).] Each of the prevention levels is made up of at least one tier of interventions. How many tiers are at each level will vary among school districts, and there is no set number that is correct. We will assume one tier at each level and refer to **primary level prevention** as tier 1, **secondary level prevention** as tier 2, and **tertiary level prevention** as tier 3. Each level is described in more detail in Table 3.2.

Progress Monitoring

Another key feature of an RTI framework is progress monitoring. Teachers assess students’ academic performance on a regular basis (weekly or monthly) for two purposes: to determine whether students are making appropriate gains from the instructional program in the general-education classroom (primary prevention level) and to build more effective programs for the children who do not benefit enough from the plan of instruction as it is (Fuchs and Fuchs 2007). Collecting and analyzing data plays an important part at every level of the RTI model. It helps establish expected rates of improvement, helps to identify students who are not progressing at an adequate level, and allows teachers to compare the effectiveness of different interventions.

Data-Based Decision Making

The process of making decisions based on the ongoing collection and analysis of data is a final key

Table 3.2 RTI: Comparing Three Levels of Intervention

	Primary-Level Prevention (Tier 1)	Secondary-Level Prevention (Tier 2)	Tertiary-Level Prevention (Tier 3)
Students Served	All students	Students who have been identified through screening as at risk for poor learning outcomes	Students who have not responded to primary- or secondary-level preventions
Setting	General-education classroom	General-education classroom or other general-education setting located within the school	General-education classroom or other general-education location within the school or special education
Interventions	Curriculum and instructional practices that are evidence-based, aligned with standards, incorporate differentiated instruction, and are culturally and linguistically responsive	Targeted, supplemental instruction delivered to small groups	Intensive, supplementary instruction delivered to small groups or individuals
Assessment	Screening, continuous progress monitoring, and outcome measures	Progress monitoring, diagnostic	Frequent progress monitoring

feature of the RTI framework. Once data are analyzed, a teacher and/or teacher teams involved with a child can make decisions about whether or not a student should move from one level of support to another or whether or not the instruction used is effective. Decisions about whether or not a disability may exist can be made as well (in accordance with state law).

When a school implements RTI, it changes the way that students are served—from a “wait to fail” special education model to a system focused first on the use of high-quality interventions within the general-education classroom. This is followed by individualized educational decision making based on how struggling students respond to high-quality, research-based interventions (Martin, Richards, and Richards 2010).

For more information on RTI, including resources that can be used for implementation, see the National Center on Response to Intervention at www.rti4success.org.

IES Practice Guide Recommendation Recommendation 1 of the Institute of Education Sciences (IES) Practice Guide, *Using Student Achievement Data to Support Instructional Decision Making*,

is to make data part of an ongoing cycle of instructional improvement (Hamilton et. al 2009). The panel cites a low level of evidence to support this recommendation but include it as a statement of their best advice given their experiences and research. They recommend gathering data from a variety of sources, using the data to make hypotheses about how to improve student learning, and modifying instruction to test the hypotheses and increase student learning.

3-3b Response to Intervention and Universal and Selected Interventions

The critical teaching and management skills discussed in this book are foundational to all instruction and all classroom management no matter the content taught, the setting (general or special education), or the framework being used (e.g., universal design for learning or RTI). In other words, all teachers need to have and be able to apply these skills. All teachers need to know how to explain and demonstrate content clearly, how to use meaningful visual supports, how to organize for group work effectively, how to establish classroom rules, and so on. Further, all teachers need to recognize which strategies are

best used universally and which are best used selectively, given their particular class of students.

Having said that, how critical teaching and management skills are defined might vary with the approach being used. If your school is not using the RTI framework, for example, then all of these skills are simply considered tools to create an effective learning environment for all students. If you are in a school where the RTI framework is being used, the critical teaching and management skills would likely be considered primary prevention (or tier 1) interventions to be used universally. By changing the intensity or frequency of their use, some of the skills could well be considered secondary prevention (or tier 2) interventions and used selectively.



TECH NOTE

The Center for Applied Special Technology (CAST) has long been associated with digital technology. This technology is a powerful tool that can be used to address many different types of student needs. It allows text to be altered in a variety of ways to suit individual needs and interests (e.g., changes in type face, font size, font color, volume for read-aloud technology). Text difficulty can be altered through images and highlighted main ideas. More flexibility is provided through hyperlinked multimedia explanations and interactive images, as well as communication capability with peers or through web blogs. Although digital technology has many advantages, it must be noted that digital technology is not the goal of UDL, it is merely one of its means (CAST 2014). For more information, visit the National Center on UDL (<http://udlcenter.org/>) and the Center for Applied Special Technology (www.cast.org/).

3-4 Planning for English Language Learners

We will discuss **English language learners (ELLs)** in various places throughout this book, but we talk about them here in more detail because of the complexity and importance of this topic. First, we know that these students encounter special challenges in the typical classroom that most other students do not. They are expected to learn content (like other students) but are trying to learn it in a language they do not know well (unlike other students), and they do this with varying amounts of success. They often

have difficulty in school when program design, instructional goals, and student needs are mismatched (Echevarria, Vogt, and Short 2008).

Second, many teachers have ELLs in their classrooms, and while the numbers of such students have fluctuated, they have increased over time. Kena et al. (2016/2017) report, “The percentage of public school students in the United States who were English language learners was higher in school year 2014–15 (9.4 percent, or an estimated 4.6 million students) than in 2004–05 (9.1 percent, or an estimated 4.3 million students) and in 2011–12 (9.1 percent, or an estimated 4.4 million students)” (p. 92).

Traditionally, these students received instruction from specially trained teachers outside of the main classroom. Echevarria, Vogt, and Short (2008) write that increasing numbers of students and a shortage of qualified English as a second language (ESL) and bilingual teachers have quickly extended the need to teach content to these students outside of the ESL classroom. This means that general and special education teachers both have an opportunity to greatly impact the success of ELLs. Obviously, the numbers of students and the challenges they have in school makes meeting their needs a high priority for all teachers.

Finally, teachers can impact the success of these students by building in universal interventions to lessons and activities. Many strategies and techniques that are used to address general diversity in a classroom are also very effective for students who are learning English. In other words, many of the instructional strategies and skills that you will learn in the rest of the chapters in this book will apply to ELLs as well. We talk about these students here because we want you to be thinking about them as you examine the ideas in the chapters that follow.

3-4a Stages of Language Acquisition

It is important for all teachers to have a basic understanding of the stages students go through as they learn English. To begin with, teachers need to understand the distinction between social language proficiency and academic language proficiency. Jim Cummins (1986) called these *basic interpersonal communication skills* (BICS) and *cognitive academic language proficiency* (CALP). A student may communicate quite well in social situations, such as chatting with peers at lunch. The same student may need extensive language support during academic instruction. Don't be fooled by oral fluency

in conversational English. Cummins (1986) suggests that academic language proficiency may take 5 to 7 years to acquire. A teacher should also understand that the process of acquiring a second language spans predictable and sequential stages. These stages of language development begin with no knowledge of English and end with a command of English much like a native speaker (Reed and Railsback 2003). Planning various types of classroom events, such as questions, is most effective when matched to the students' levels of language development. The following explanations, adapted from Reed and Railsback (2003) and Herrell and Jordan (2008), summarize the stages of language acquisition:

1. *Preproduction stage.* Students in this stage understand more words than they can speak or feel comfortable speaking. Sometimes, students respond through gestures, pointing, or nodding. This stage can last anywhere from hours to months, and teachers need to be careful to wait until students are ready to speak, rather than forcing them. These students can understand somewhere around 500 words.
2. *Early production stage.* During this stage, which can last 6 months or so, the ELL acquires a receptive vocabulary close to 1,000 words. Answering in one- or two-word phrases is common at this stage, and students can often provide short answers to questions such as those beginning with *who*, *what*, and *where*.
3. *Speech emergence stage.* When in the speech emergence stage, students develop a vocabulary of around 3,000 words. They can use short phrases and simple sentences and can also ask simple questions. This stage lasts about a year.
4. *Intermediate/advanced language proficiency stage.* This stage can take up to a year to go through, but it is one of great growth. Those in this stage have vocabularies that grow to about 6,000 words. They are able to speak in much longer sentences and can, for example, make complex statements and express opinions. It may take between 5 and 7 years for students to become academic language proficient. At this time, they know specialized content vocabulary and can actively participate in classroom and school activities. These students may need

support at times, but when advanced proficiency is obtained, they are quite independent.

Throughout this section and in other parts of this book, we will focus on providing you with strategies and ideas to include in lessons or activities with the primary objective of content learning rather than learning English. Note, however, that strategies sometimes serve a dual purpose—they help with content knowledge and with learning English. A good place to start when thinking about language acquisition is to recognize whether a student's academic language proficiency may need support, even if the student's social or conversational English is quite fluent. Because teachers today recognize that native English speakers also need to be explicitly taught academic terms and vocabulary, the instruction that is routinely built into many lessons and activities for those students benefits ELL students as well.

In the section that follows, two general areas can give direction when planning. The first is what you can do to help students understand what you say or present. The second is what you can do to provide opportunities for language use. (Many of these ideas are adapted from Gersten, Baker, and Marks 1998; and Flores 2008.) These two categories of strategies are especially applicable when planning activities and lessons.

3-4b Make What You Present Understandable

Many authors call this “comprehensible input.” *Comprehensible input* means that students can understand the sense or substance of what teachers present, although they may not necessarily understand every word. The following strategies will help make what you present understandable:

1. *Teach vocabulary.* Selecting and defining key terms and vocabulary is an important part of content analysis (see Chapters 1 and 5). When teaching ELLs, it is absolutely essential to consider the following suggestions:
 - Select a small number of words to introduce at a time. Gersten and Baker (2000) suggest seven or fewer.
 - Select important and useful words.
 - Preteach the vocabulary words at the beginning of lessons or activities, or before reading.
 - Present the words in context.

- Directly teach the words and meanings by saying them, writing them, and using visual supports and active participation strategies.
- Help the students connect the words with prior knowledge and personal experience through discussions and semantic webs.
- Provide various practice opportunities, such as acting out meanings, creating word banks, writing journal entries, or defining with partners.
- Implement the key suggestions from the IES Practice Guide, *Effective Literacy and English Language Instruction for English Learners in the Elementary Grades* (Gersten et. al 2007):
 - Use an evidence-based approach to vocabulary instruction.
 - Develop district-wide lists of essential words from core reading programs and textbooks used in content areas (e.g., science and history).
 - Focus on everyday words that native speakers know.

2. *Use visual supports.* Visual supports are a very important method of scaffolding to help ELLs understand vocabulary, concepts, principles, and procedures. The four types of visual supports described in Chapter 5 are helpful in various ways during instruction. For example, real objects, models, and pictures are very helpful in teaching vocabulary (see Photo 3.2). Demonstrations and role-plays make directions and procedures much more understandable. Writings are helpful for reinforcing verbal information in many parts of activities or lessons. Finally, graphic organizers can improve comprehension, clarify abstractions, organize concepts, or demonstrate connections.

3. *Provide context and activate background knowledge.* New information is more easily understood when teachers present it in a context rather than as standalone material. At the beginning of a lesson, use the following methods to build background knowledge and provide a context:

- Provide a familiar example (introduce fractions by saying, “Three friends ordered a pizza and they want to share it . . .”).



Photo 3.2 Common classroom objects can be labeled in multiple languages to help students learn vocabulary.

- Ask questions (introduce a history unit on migrations by asking, “How many of you have moved to a new place? What did you take with you? How did you get there?”).
- Use group or individual brainstorming for creating webs or maps of what students already know about a topic.
- Have the class, small groups, or individuals complete “KWL” charts (what I already **K**now about a topic, what I **W**ant to learn, and, later, what I did **L**earn).
- Connect an introduction of new concepts with the students’ native languages (when introducing the concept *idiom*, show examples in different languages that have the same meaning, such as *bookworm* and *un ratón de biblioteca*).
- Build background knowledge for the students by providing experiences, such as brief

activities at the beginning of lessons (“I’m going to give one cookie to each group of three, and you need to share it fairly . . .”); activities that come before lessons (e.g., an activity involving experimenting with magnets before a lesson on how magnets work); or field trips, guest speakers, multimedia presentations, and stories that are relevant to the new learning.

- Provide context as you present by gesturing and demonstrating; showing examples of completed products; using graphic organizers; thinking aloud; or showing objects, pictures, videos, or audio recordings (see Chapter 5).
4. *Use consistent language.* Decide on the important words and phrases to be used in a lesson or activity, teach them, and then use those terms consistently. Avoid using synonyms at random. Also name the steps consistently when teaching procedures and strategies. Remember that idioms, metaphors, and other figures of speech can be difficult to understand. Use them carefully and check for understanding frequently.
 5. *Give explanations or directions in a variety of ways.* As you speak, use gestures and demonstrations, put information in writing, be explicit and explain step by step, give many examples, use think-alouds, show completed products, and check for understanding (see Chapters 5 and 7).

Teacher Checklist 3.2 is a summary of key strategies that can help make the information you are presenting understandable for English language learners.

TEACHER CHECKLIST 3.2: PLANNING HOW TO MAKE WHAT YOU SAY UNDERSTANDABLE TO SUPPORT ENGLISH LANGUAGE LEARNERS

Teach Vocabulary

- ✓ Have I selected a small number of important and useful words to introduce at a time?
- ✓ Am I planning to present the words in context?
- ✓ Am I planning to help students connect the words with prior knowledge and experience through discussions and semantic maps?
- ✓ Am I planning to directly teach the words and provide practice opportunities?

Use Visual Supports

- ✓ Am I planning to use visual supports throughout the lesson/activity whenever necessary?
- ✓ Am I planning to use a variety of visual supports?

Provide Context and Activate Background Knowledge

- ✓ Am I planning to connect new concepts and ideas to students’ native languages?
- ✓ Am I planning to provide context by demonstrating, showing examples of completed products, using graphic organizers, and think-alouds?
- ✓ Am I planning to use reviews of prior lessons/activities?
- ✓ Am I planning to build background knowledge by providing experiences to help fill in gaps?
- ✓ Am I planning to use familiar examples?

Use Consistent Language

- ✓ Am I planning to emphasize important words?
- ✓ Am I planning to check for student understanding of word meaning frequently?

Give Explanations or Directions in a Variety of Ways

- ✓ Am I planning to use gestures, demonstrations, think-alouds, and completed products?

Professional Resource Download



3-4c Provide Opportunities for Language Use

In addition to providing comprehensible input, teachers need to help students process that input and express and practice that learning. Gersten and Baker argue “that both extended discourse about academic topics and briefer responses to specific questions about content are cornerstones of academic growth for English-language learners” (2000, p. 465). The following are some strategies for providing opportunities for language use in lessons and activities:

1. *Use active participation strategies.* These strategies (discussed extensively in Chapter 6) are designed to keep all students actively engaged in learning. Ask students to actively respond during lessons by talking, writing, or signaling

rather than passively listening. As you select those strategies likely to be most valuable for ELLs, look for strategies that require oral responses from students; provide opportunities for long, complex responses, as well as brief, one- or two-word responses; encourage discussions with peers (e.g., think-pair-share); and create nonthreatening opportunities to respond (unison responses).

2. *Use partner and small-group work.* Having students work with partners or in small groups during lessons and activities provides many opportunities for language use. (Formal peer tutoring and cooperative learning programs are highly recommended as well.) Peers act as language models and can provide feedback. Their support can create a safe environment for using language. Chances to discuss new concepts or solve problems with other students, including those who speak the same native language, can be very beneficial. Teachers need to carefully structure and monitor partner and small-group work to be most effective (see Chapter 8 for more on this approach).

Technology can be a very useful tool for strengthening instruction for ELLs. It can help make information more understandable and give opportunities for practicing English in many different ways.

Brozek and Duckworth (2011) suggest that both hardware and web-based software are very useful for these purposes. Interactive whiteboards and document cameras provide great flexibility for teachers in some of the following ways: Pictures can be added to vocabulary and written passages; notes can be changed and saved; and textbooks, pictures, student work, and almost anything else can be easily projected for all to see. Web-based software allows for the production of videos and slideshows with voice narration and creative writing exercises to name a few. Carefully supervised social networking can also provide excellent practice and motivation.

You can have a very positive influence on helping ELLs in your classroom learn, even if you are not an expert in second-language acquisition. You can begin by carefully analyzing the progress of your ELLs in both content and language learning and planning accordingly. Gersten and Baker point out that “Effective instruction for English-language learners is more than just ‘good teaching.’ It is teaching that is tempered, tuned, and otherwise adjusted, as a musical score is adjusted, to the correct ‘pitch’ at which English-language learners will best ‘hear’ the content (i.e., find it most meaningful)” (2000, p. 461). This idea implies the importance of trying out techniques and strategies and monitoring their effectiveness (see Chapter 7). Take a look at Teaching Plan 1 in the Appendix for examples of strategies to support ELLs.

Summary

The students you work with will be successful in varying degrees with a variety of instructional methods and activities. The suggestions presented in this chapter that are designed to help students be successful are only a beginning assortment of ideas. It is important to continue to add to your

repertoire of diversity responsive teaching strategies. When you plan, incorporate the principles of universal design for learning, differentiated instruction, and RTI. By applying these approaches in your classroom, you will increase the chances that all of your students will learn.

Key Terms & Definitions

Big ideas: Overarching ideas that anchor and connect smaller ideas.

Conspicuous strategies: The steps necessary for solving a problem or accomplishing a task and are most effective when taught explicitly.

Differentiated instruction: An approach or philosophy of teaching in which teachers actively plan for students’ differences by providing different avenues to learning.