UNIVERSAL DESIGN AND RESPONSE TO INTERVENTION

Classroom teachers have the awesome responsibility of providing effective instruction for the increasingly diverse population of children they see in their classrooms each year. Today's classrooms are characterized by diversity of student ability, achievement, social and emotional development, background experience, culture, language, and economic means. Because teachers are responsible for providing effective instruction to all students, they must design instruction that facilitates universal access to the curriculum. This is called universal design of learning (Center for Applied Special Technology, 2007). When applied to instructional planning in inclusive classrooms, universal design incorporates various levels of support and flexible teaching methods, materials, and assessments. Planning for the range of diverse learning needs is built into the universal design framework. This can be compared to designing a building that allows for maximum accessibility (ramps, automatic doors) from the start, thus avoiding costly retrofitting after the structure is already built. Universal design of learning increases the efficiency of instructional delivery and reduces the need for contriving adaptations and accommodations later (Friend & Bursuck, 2009).

Universal design can be accomplished by using a Response to Intervention (RTI) model for instructional planning, delivery, and assessment. RTI is a systematic and data-based method for determining which students need more intensive intervention to achieve academic success (Fuchs, Fuchs, & Vaughn, 2008). Essentially, teachers using the RTI model provide increasingly more instructional support as needed by individual students based upon objective assessment data. Most RTI models have three levels of intervention called tiers. Tier 1 is generally defined as evidence-based instruction delivered to the whole class. Tier 2 interventions are provided to

students who need more intensive intervention than what is provided in Tier 1. Students receiving Tier 2 instruction typically receive supplemental instruction in small groups. Students who do not respond well to Tier 2 interventions receive more intensive Tier 3 interventions, usually one-on-one instruction. When teachers use an RTI model to teach diverse learners, they are better able to identify struggling students quickly and provide them with timely supplemental instruction. Additionally, RTI is an evidence-based practice for managing effective instruction and increasing student achievement in inclusive classrooms (Gersten et al., 2009).

The purpose of this book is to provide general and special educators with the necessary tools for teaching literacy to diverse learners in K–8 inclusive classrooms using RTI. This chapter describes student diversity in inclusive classrooms and provides an overview of RTI as it relates to assessment, literacy instruction, programming for generalization, integrating language arts, and collaborative teaching.

DIVERSE LEARNERS AND INCLUSIVE CLASSROOMS

Decades of school reform toward inclusive education have culminated in almost all children with exceptionalities being educated in general education classrooms for at least part of the school day. During the 2004–2005 school year, about 52 percent of students with disabilities spent at least 80 percent of their school day in a general education classroom, an increase from 45 percent of students in 1995 (National Center for Education Statistics, 2007). Students with high-incidence disabilities including speech/language impairments, learning disabilities, and behavior disorders make up 80 percent of all students receiving special education services (US Department of Education, 2007). Students with low-incidence disabilities (such as autism, significant intellectual disabilities, multiple disabilities, sensory disabilities, and physical, medical, and health impairments) make up less than 20 percent of students receiving special education services. Gifted students are also exceptional learners with special needs who are members of inclusive classrooms. The National Association of Gifted Children estimates about 3 million gifted students attend US schools, which is about 6 percent of the student population (National Association for Gifted Children, 2008). Even students without exceptionalities represent a wide range of abilities and diverse needs.

In addition to diversity of ability, US classrooms are also characterized by diversity of student backgrounds, culture, and language. In the 100 largest US school districts, 70 percent of students are from culturally and linguistically diverse groups (Dalton, Sable, & Hoffman, 2006). According to the Office of English Language Acquisition (2008), there are about five million English language learners (ELL) attending US schools in grades Pre-K through 12. This is a 95 percent increase since 1991. By the year 2030, researchers predict that 40 percent of the students in US schools will have a first language other than English (National Symposium on Learning Disabilities in English Language Learners, 2004). Most English language learners in US classrooms speak Spanish (79 percent). The remaining 21 percent of ELL students represent about 380 different language groups (Hopstock & Stephenson, 2003).

Classrooms are also represented by economic diversity. According to Fass and Cauthen (2008), about 13 million children in the United States live with families whose income is below the poverty level (\$21,200 annually for a family of four). This is an increase of 15 percent since the year 2000. Additionally, a disproportionate number of culturally diverse children live in poverty (34 percent of African American children, 29 percent of Latino children, and 13 percent of Asian children; Fass & Cauthen). Homeless children are another growing population of students in US classrooms. According to the National Association for the Education of Homeless Children and Youth (NAEHCY, 2009), about 800,000 homeless children attended public school during the 2007–2008 academic year. This is an alarming 17 percent increase from the previous year.

Research has documented an achievement gap that is correlated with disability, cultural diversity, and income level (Casserly, 2006). Unfortunately, the gap between low- and high-performing students continues to increase each year they progress through school, particularly in the area of literacy. According to the National Center for Education Statistics (NCES, 2007), 67 percent of fourth graders and 69 percent of eighth graders failed to reach proficient levels in reading achievement, and 68 percent of eighth graders and 69 percent of twelfth graders failed to reach proficient levels in writing achievement. In response to the long-standing achievement gap, No Child Left Behind (US Department of Education, 2002) was enacted to improve achievement for all students, particularly those who are disadvantaged.

NCLB and Evidence-Based Practices

The reauthorization of the Elementary and Secondary Education Act (2002), otherwise known as No Child Left Behind (NCLB), holds teachers accountable for each student's measured growth in reading, mathematics, and language, and requires teachers to make instructional decisions based on reliable evidence that a practice is effective. Similar to NCLB, the use of evidence-based teaching practices is mandated in the Individuals with Disabilities Education Improvement Act (IDEIA, 2004).

With evidence-based practices, diverse learners with and without disabilities can attain positive academic outcomes when they are educated in inclusive classrooms (Cole, Waldron, & Majd, 2004; Idol, 2006). Every teacher probably knows that merely placing students with special needs in general education classrooms will not increase their achievement. However, when teachers carefully plan and deliver differentiated instruction, inclusive practices can be effective for improving the achievement of all students. Research demonstrates that the achievement gap between highand low-performing students closes when effective teachers teach disadvantaged students for consecutive years (North Central Regional Educational Laboratory, 2005). Effective teaching practices have been identified in high-performing schools with large percentages of diverse learners and low-income students (Craig et al., 2005). Effective teachers in diverse classrooms create a climate of high expectations, maximize instructional time, differentiate instruction, conduct purposeful assessments, align curriculum with standards, and collaborate with other teachers to plan and deliver instruction (Craig et al.). See Table 1.1 for resources of evidence-based practices.

Table 1.1

Resources for Evidence-Based Practices

• Center for Evidence-Based Practices

http://evidencebasedpractices.org/

• Intervention Central

http://www.interventioncentral.org/

• National Center for Special Education Research

http://ies.ed.gov/ncser/

• Promising Practices Network

http://www.promisingpractices.net/programs.asp

• What Works Clearinghouse

http://ies.ed.gov/ncee/wwc/

Wing Institute

http://winginstitute.org/

Reading Rockets

http://www.readingrockets.org/

Special Education Law

The least restrictive environment (LRE) provision of the Individuals with Disabilities Education Improvement Act (IDEIA, 2004) requires children with disabilities to be educated with children without disabilities to the maximum extent appropriate, and that removal from general education classrooms should only occur "when the nature or severity of the disability of a child is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily" (IDEIA, 2004, P.L. 108-446, Sec. 612 (a) (5) (A)). Federal law stipulates that a range of placement options must be available to students with disabilities and the least restrictive environment must be individually determined by each child's IEP team. The general education classroom, with varying levels of special support, is often the least restrictive environment for many students with disabilities. More restrictive environments include special education resource rooms or self-contained classrooms. An IEP team may collaboratively decide that the least restrictive environment for a sixth grader with severe reading challenges is a general education classroom for most of the school day, plus one hour per day of intensive reading instruction in a resource room. The range of placement options allows for flexibility of programmatic decision making for individual learners. However, many educators believe that appropriately intensive services can be provided to most children with disabilities without removing them from the general education classroom (Conner & Ferri, 2007; McLesky & Waldron, 2007).

Delivering appropriate instruction in inclusive classrooms requires teachers to view students with disabilities as full members of the classroom

community rather than just visitors. The three dimensions of inclusive practices described by Friend and Bursuck (2009) are physical, social, and instructional integration. Physical integration is placement with nondisabled peers in a general education classroom. Social integration is fostering relationships with peers, and instructional integration is teaching students the same curriculum while providing any necessary accommodations to ensure success. The Response to Intervention (RTI) model has become a popular and effective way to provide differentiated instruction in inclusive classrooms (Gersten et al., 2009). Additionally, special education law (IDEIA, 2004) encourages the use of RTI as a way to prevent reading problems and identify students with learning disabilities.

RTI AND ASSESSMENT

The Individuals with Disabilities Education Improvement Act (IDEIA, 2004) allows states to identify students with learning disabilities based on how well they respond to evidence-based teaching methods (that is, their responsiveness to intervention). The RTI model also provides an evidence-based way to manage instruction for all students in inclusive classrooms using a multitiered approach (Gersten et al., 2009). Based on experimental research, a panel of experts from the National Center for Educational Evaluation (Gersten et al.) made the following general recommendations for implementing multitiered interventions:

- Tier 1: Screen every student at the beginning and middle of the school year and frequently monitor the progress of struggling learners. Based on assessment of student needs, provide differentiated instruction for students at their individual reading levels.
- Tier 2: For students not responding successfully to Tier 1 instruction, provide more intensive intervention three to five times per week (for 20 to 40 minutes) to students in small groups. Monitor progress and determine if Tier 3 intervention is necessary.
- Tier 3: Provide daily intensive instruction on targeted literacy skills with opportunities for one-on-one instruction, frequent practice, and systematic feedback. Tier 3 interventions should be planned with input from the school's intervention assistance team.

The RTI model is ideal for serving the needs of diverse learners because interventions and materials can be customized to the backgrounds, abilities, and experiences of individual learners (Brown-Chidsey & Steege, 2005). In order to implement RTI effectively, teachers need an accurate and reliable assessment system for monitoring progress to determine which students are responding to intervention and which students need more intensive supplemental instruction (Vaughn et al., 2008). Effective progress monitoring provides teachers with a reliable prediction of student achievement (Deno, 2003) and enables teachers to increase student achievement by making more effective instructional decisions (Fuchs & Fuchs, 2006). Curriculum-based measurement (CBM) is an evidence-based progress monitoring system that works well in the context of the RTI model.

Curriculum-Based Measurement

In 1985, an article by Stan Deno, "Curriculum-Based Measurement: The Emerging Alternative," was published in *Exceptional Children*. This article was identified as one of the 10 most influential publications in special education literature since 1960 (McLesky, 2004). Derived from the principles of applied behavior analysis, Deno introduced CBM as a method of data collection, with standardized procedures enabling teachers to continuously monitor student progress of academic skills. In addition to assessing a student's level of performance, repeated CBM measures over time can also provide an accurate picture of each student's rate of learning (Deno, 2003). With CBM, the teacher frequently administers brief and direct timed probes of basic skills. For example, to assess reading fluency, the teacher times a student for one minute as he reads a passage, then counts and records the number of words the student reads correctly and incorrectly.

Several CBM programs are available to teachers (AIMSweb, DIBELS, Edcheckup, for instance). For example, the AIMSweb Progress Monitoring and Response to Intervention System provides teachers with curriculum-based measurement materials for assessing reading, writing, mathematics, spelling, early literacy, and early numeracy. CBM probes are easy and quick to administer and score, sensitive to small changes in performance, and can predict student performance over time (Cusumono, 2007). Using the results of CBM probes, teachers chart student performance and examine the data to determine if students are progressing at the expected rate. In addition to helping teachers make timely instructional decisions, CBM can help teachers make better use of instructional time. That is, they can spend less time testing and more time teaching (Hosp, Hosp, & Howell, 2007).

Special education teachers first used CBM, but the number of general education classroom teachers using CBM has been increasing. Because CBM is efficient and technically adequate, it fits in well with the RTI model (Hosp et al., 2007). In an RTI model, the same CBMs can be used across all three tiers. Only the frequency of assessment varies across students depending on their needs (Hosp et al.). In this book, Chapter 2 (Assessing for Intervention in Reading) and Chapter 4 (Assessing for Intervention in Writing) focus on procedures for using CBM to assess and monitor reading and writing performance in inclusive classrooms. In addition to CBM, Chapters 2 and 4 will provide teachers with suggestions for using authentic assessments as a way to supplement CBM and provide more comprehensive information about student abilities. Authentic assessment refers to evaluating meaningful products that require a synthesis of skills (for example, written stories or reports, oral presentations).

Using CBM and additional assessment information to guide instructional decision making, teachers may plan and implement evidence-based practices for each level of intensity in the RTI model. Researchers have identified evidence-based reading and writing practices and programs within each tier of the RTI model. Chapter 3 (Implementing Multitiered Reading Instruction) and Chapter 5 (Implementing Multitiered Writing Instruction) focus on evidence-based practices for teaching language arts using a multitiered approach and managing differentiated literacy instruction.

RTI AND LITERACY INSTRUCTION

Most people think of literacy as the ability to read and write. In addition to reading and writing, the Workforce Investment Act of 1998 includes in its definition speaking, computing, and problem solving in the context of developing potential and achieving goals. The United Nations Educational, Scientific, and Cultural Organization (UNESCO, 2004) states that literacy is "the ability to identify, understand, interpret, create, communicate, compute and use printed and written materials associated with varying contexts" (p. 13). Furthermore, UNESCO defines literacy as a continuum of learning that allows individuals to develop their knowledge, achieve their goals, and participate fully in their communities. McKenna, Labbo, Reinking, & Zucker (2007) describe an evolving idea of literacy that extends to computer technology skills. Because digital technology is so pervasive in all aspects of current society, embedding technology into literacy instruction may be critical for preparing students to be literate adults in a high-tech society. Additionally, many reading and writing computer programs have been demonstrated to be effective for increasing a range of reading and writing skills (MacArthur, 2009).

This book presents evidence-based programs and practices that incorporate reading, writing, speaking, listening, and computer literacy. Specifically, Chapter 3 and Chapter 5 will provide teachers with specific learning activities for each level of a three-tiered RTI model. In general, literacy research has demonstrated that all students, especially those with diverse needs, benefit a great deal from explicit teaching, active student responding, peer-mediated learning, programming for generalization, integrating the language arts, and collaborative teaching. This book will address how each of these practices can be used to teach literacy in inclusive classrooms within the RTI model.

Explicit Instruction and Active Student Responding

Explicit instruction is directly teaching a skill using modeling, guided practice, and systematic feedback. Teachers can provide explicit instruction using a model-lead-test sequence (Engelmann & Carnine, 1982). First, the teacher models the skill (for example, "This word is *tomorrow.*"); then the teacher and students perform the skill together ("Let's read this word together, *tomorrow.*"); finally, the students perform the skill alone (with the teacher telling them, "Now you read the word."). For each student response, the teacher provides immediate feedback. If the students make an error, the teacher uses a consistent systematic error correction procedure (such as telling the students the correct answer, having the students repeat the answer, and presenting the learning trial again).

In order to be proficient with any skill, students need frequent opportunities to actively respond to instruction (that is, they learn by doing; Heward, 1994). Students are engaging in active student responding (ASR) when they make an observable response to instruction (such as speaking, writing). In reading, for example, students are making active responses when they pronounce letter sounds, read sight words aloud, or write the answers to comprehension questions.

ASR techniques will be most effective for increasing achievement if they provide for frequent response opportunities, a clear response prompt (Teacher says, "What word?"), and immediate feedback for each response ("Correct, the word is *car*."). In addition to being effective for all students, ASR techniques are ideal for the inclusive classroom because all children can participate simultaneously as part of one unified group. Evidence-based ASR activities presented in this book include choral responding, response cards, and guided notes.

Peer-Mediated Instruction

Another way to promote active student responding is through peermediated instruction such as class-wide peer tutoring or cooperative learning groups. In peer-mediated arrangements, students work together in pairs or groups to practice academic skills and provide each other with immediate feedback. Ideal for inclusive classrooms, peer-mediated programs are highly structured teaching arrangements that can supplement and strengthen the effectiveness of balanced literacy programs. Peer-mediated instruction provides students with frequent opportunities to make academic responses and receive immediate feedback. When peer-mediated instruction is implemented correctly, all students benefit. Decades of research demonstrate the effectiveness of peer-mediated instruction for increasing academic achievement and social competence across a wide range of high- and low-performing learners in K-12 classrooms (see Maheady, Harper, & Malette, 2001; McMaster, Fuchs, & Fuchs, 2006). Students who tend to make the greatest gains as a result of peer-mediated instruction include students with disabilities (Allison & Rhem, 2007) and English language learners (Gersten et al., 2007). In addition to promoting crosscultural friendships, heterogeneous cooperative learning increases the language and literacy skills of diverse learners (Crandall, Jaramillo, Olsen, & Peyton, 2001; Snowman & Biehler, 2003). Chapters 3, 5, 6, and 7 present evidence-based peer-mediated instructional activities for increasing literacy skills in inclusive classrooms.

Integrating Language Arts

Research demonstrates the effectiveness of integrating language arts instruction for increasing student achievement (for example, Shanahan, 2009). Connecting instruction in reading, writing, speaking, and listening is an efficient and authentic way to improve literacy achievement. For example, Abbott and Berninger (1993) found that handwriting skills, letter naming, and spelling skills were related to early decoding proficiency. Foorman and colleagues (2006) found that written expression also had a positive effect on early decoding skills. Additionally, recent research identifies a strong connection between written expression and reading comprehension (Graham & Perin, 2007). In their report of best practices for writing instruction, Graham and Perin identified sentence combining and written text summarization as evidence-based procedures for improving both reading comprehension and written expression. Chapter 6 will provide teachers with direction for planning connected language arts instruction in authentic contexts using thematic units.

Programming for Generalization

For instruction to be truly effective, it must produce generalized outcomes for students. This means that when a student learns a new skill in the classroom, he or she should be able to use that skill independently in a variety of functional ways, in a variety of relevant settings and situations, and over time. Many teachers do not deliberately program for generalization. Instead, they *hope* their students will be able to generalize and maintain new skills. Stokes and Baer (1977) called this approach "train and hope." The problem with this most widely used approach is that it does not work.

When planning instruction for all learners, especially those who struggle, it is imperative that teachers deliberately program instruction that promotes generalization and maintenance of newly learned skills. Fortunately, applied research provides teachers with many effective generalization strategies to incorporate into literacy instruction. Stokes and Baer (1977) and Cooper, Heron, and Heward (2007) describe a variety of strategies designed to promote the transfer of skills from the teaching setting (the classroom) to any number of generalization settings or situations (such as other classrooms, home, community settings). Examples of generalization strategies delineated by Cooper and colleagues (2007) include teaching students the range of representative examples of a concept or skill, incorporating important features of the generalization setting into the training setting, and arranging for students to contact reinforcement in the generalization setting. Chapter 7 describes how teachers can use these kinds of strategies to increase generalization and maintenance of literacy skills.

COLLABORATIVE TEACHING

Collaboration is essential for creating an effective inclusive classroom in which all children are actively engaged in appropriately differentiated and individualized instruction. Three inclusive classroom models requiring collaboration include the consultant model, the teaming model, and the coteaching model. In the consultant model, the general education teacher provides most of the classroom instruction with additional input and guidance from a special education teacher. With teaming, the special education teacher works with a grade-level team (for example, all of the fourth-grade teachers) to help plan appropriate instruction and necessary accommodations for struggling students. In a coteaching model, both general and special education teachers work together to plan and deliver instruction to every student. Both teachers are equally responsible for all student outcomes. Using a coteaching model, the following are examples of different kinds of arrangements for instructional delivery in inclusive classrooms (Vaughn, Bos, & Schumm, 2006).

- *Station teaching*. Two teachers each provide simultaneous instruction to half of the students in the classroom, then the groups switch. Additional independent stations or learning centers can be included in station teaching.
- *Parallel teaching*. The students are separated into two heterogeneous groups and each teacher works with the same group of students for the duration of the lesson.

- Alternative teaching. One teacher works with most of the students while another teacher works with a small homogeneous group of students for remediation or enrichment.
- *Teaming*. Both teachers work together to deliver the same content to the whole class (that is, one teacher demonstrates while the other explains, both teachers role-play to demonstrate a skill).

Instructional arrangements should be flexible and frequently varied throughout the day. Using the RTI model, teachers can make collaborative decisions about the most appropriate arrangements that meet student needs and match curricular demands. The likelihood of successful collaboration increases when teachers have effective communication skills, shared responsibility for common goals, time to plan, and administrative support. When teachers collaborate they have the advantage of combining their unique strengths and ideas to create an enriching and vibrant learning environment for every child in the classroom.

SUMMARY

Each child comes to school equipped with his or her own unique set of characteristics, abilities, challenges, dispositions, talents, and needs. Teachers are responsible for designing and implementing instruction that enables individual learners to achieve academic and social competence in and out of the classroom and over time. Using universal design of learning (UDL) as a guiding framework, teachers can incorporate necessary supports into instructional planning so that all students are actively engaged, challenged, and successful. The Response to Intervention (RTI) model is an evidence-based approach to achieving universal design in inclusive classrooms. The RTI model consists of multiple tiers or levels of instruction that become increasingly more intensified for individual students based on their needs as determined by objective assessments. Teachers can use curriculum-based measurement (CBM) to monitor student progress and make instructional decisions about the extent to which students need more intensive support or supplemental instruction. When applied to literacy instruction, teachers can customize the following general teaching procedures within multitiered instruction: explicit teaching, active student responding (choral response, response cards, guided notes), peer-mediated teaching, integrating language arts (listening, speaking, reading, and writing), and programming for generalization. Additionally, collaborative teaching is likely to increase successful literacy instruction for diverse learners in inclusive classrooms.