

# CHAPTER 1

## What Is Differentiated Instruction?

In the 21st-century classroom, teachers face a student body that is culturally, economically, and linguistically diverse, with disparate needs and abilities—even though many parents, teachers, and administrators still believe in the “myth of homogeneity by virtue of chronological age” (Tomlinson et al., 2003, p. 119). As diversity increases, grouping students by chronological age only despite such factors as readiness or ability continues to be an increasingly questionable practice. Diversities that must be addressed in today’s schools include not only the issues of student readiness, language and culture, and ability/disability, but also student interests and individual learning profiles (Hoover & Patton, 2004). Today’s educational professionals are seeking a means of addressing this diversity in the classroom through an approach to teaching that is responsive to all the learners they serve. Lachat noted, “Diversity in today’s classrooms and schools continues to increase. Classrooms now consist of students who represent many different cultures, languages, and beliefs” (as cited in Hoover, 2009, p. 5). Hoover (2009) went on to add that “Valuing cultural diversity is imperative if diverse learners are to be effectively educated” (Hoover, 2009, p. 5). One way educators are addressing this challenge is through the use of differentiated instruction in the general education classroom (Bender, 2012; Fogarty & Pete, 2011; Gartin, Murdick, Imbeau, & Perner, 2002; Gould & Vaughn, 2000; Gregory, 2003; Hanson, 2015; Hoover, 2009; Hoover & Patton, 2004; Tomlinson, 2014; Tomlinson et al., 2003; Tomlinson & Imbeau, 2010; Tomlinson & McTighe, 2006).

*Differentiated instruction* was originally defined as the planning of curriculum and instruction using strategies that address student strengths, interests, skills, and readiness in flexible learning environments (Gartin et al., 2002). Tomlinson (2000) suggested that differentiated instruction is “a way of thinking about teaching and learning” (p. 6). Gregory (2003) agreed and noted that “it is a philosophy that enables teachers to plan strategically in order to reach the needs of the diverse learner in classrooms today” (p. 27). Thus, differentiated instruction is an approach to education that holds that:

- Students differ in their readiness to learn.
- Students differ in their readiness, significantly enough to affect their learning.
- Students learn best with high expectations and support from adults.
- Students learn best when material is connected to their interests and experiences.
- Students learn best in a safe community.
- Schools must maximize every student’s capacity.

These beliefs continue to serve as guiding principles to direct the actions of teachers today. Osborne noted that “differentiated instruction is an approach to more effectually address the needs of a wide range of learners by providing ‘multiple pathways’ in the teaching and learning process” (as cited in Bennett, 2012). For the purposes of this book, differentiated instruction will be considered “a way of thinking about teaching and learning” that is “designed to assist teachers in recognizing, understanding, and addressing student differences that are inevitable in virtually all classrooms” (Tomlinson & Imbeau, 2013, p. 120).

### **Underpinnings of Differentiation of Instruction**

Since Tomlinson’s (1999) introduction of the concept of differentiated instruction, there have been numerous publications describing it and explaining how to implement it in the inclusive classroom (see Bender, 2012; Fogarty & Pete, 2011; Gartin et al., 2002; Gould & Vaughn, 2000; Gregory, 2003; Hanson, 2015; Hoover, 2009; Hoover & Patton, 2004; Tomlinson et al., 2003; Tomlinson, 2014; Tomlinson & Imbeau, 2010; Tomlinson & McTighe, 2006). In addition to these descriptive articles and books, there has been a surge in research supporting the concept. The major lines of research that provide an underpinning for the concept and implementation of differentiated instruction focus on the concepts of universal design for learning (UDL) and multiple intelligences, informed by recent research in the field of neuroscience.

### **Universal Design for Learning**

The concept of UDL was first developed as a framework to promote flexible instructional environments and to increase access to the educational arena for individuals with disabilities. It was an extension of the concept of universal design, which first began more than 25 years ago in the field of architecture. The Center for Applied Special Education Technology (CAST) focuses the UDL framework on three guiding principles: (a) multiple means of representation, (b) multiple means of expression, and (c) multiple means of engagement (Hanson, 2015). Kame’enui

and Simmons (1999) explained the use of universal design through six curricular design principles that are essential for teachers to consider when designing adaptations of content:

- big ideas,
- conspicuous strategies,
- mediated scaffolding,
- strategic integration,
- judicious review, and
- primed background knowledge.

The research base in this area is limited but growing, so teachers interested in the implementation of UDL and differentiated instruction should pay attention to what is happening in the field. Also, according to Janney and Snell (2013), UDL along with differentiated instruction should not be regarded as specific methods or strategies for teachers to use but rather as broad approaches to assist the teacher in responding to student variability in a more focused manner.

## **Multiple Intelligences**

Another area of research that complements the concept of differentiated instruction is that of multiple intelligences. Research on the idea that student learning differences are based on different forms of intelligence was first introduced by Howard Gardner (1993). Gardner proposed the idea that intelligence was not a single ability that could be assessed and that, rather, there were seven—later amended to nine—different forms of intelligence: linguistic, logical-mathematical, spatial, bodily-kinesthetic, musical, interpersonal, intrapersonal, naturalistic, and existential (Bender, 2012). This theory led to research and teaching that focused on including an array of different teaching methods in the classroom. Other theories that address different forms of intelligence as well as learning styles have been proposed (cf. Silver, Strong, & Perini, 2000; Sternberg, 1985). Each of these theories has expanded the concept that students learn in different ways and have preferences for both taking in information and showing what they have learned. Thus, differentiated instruction, which focuses on student differences in learning and processing information, is compatible with the theory of multiple intelligences. Teachers, whether they espouse the theory of multiple intelligences or the theory of differentiated instruction, should plan and develop activities that align with the differing learner strengths, needs and preferences in the classroom.

## Brain Research

A new and rapidly expanding area of research has occurred in neuroscience, specifically including research on the brain, brain-compatible learning, and its implications for education. One early focus was that of the active learning brain. Early research by Hart (1999) and Jensen (1998, 2005) introduced the idea that individuals learn better when they are actively involved in the learning process. CAST, in its focus on UDL, has incorporated this research into its pantheon. CAST has described different brain networks that can influence learning and should be considered when designing instruction (see CAST, 2015). These networks include the *recognition network* (what the student is learning), the *strategic network* (how the student is learning), and the *affective network* (why the student is learning; Hanson, 2015). This expanding neuroscience base, now known as *educational neuroscience*, supports the use of differentiating curriculum and instruction in the areas of content, process, product, and the learning environment itself (Sousa & Tomlinson, 2011; also see Chapter 5).

### The Future of Differentiated Instruction

Differentiation of instruction is an effective concept for addressing the diverse needs in the 21st-century classroom, and a concept for which there is an expanding research base. Challenges inherent in the inclusive, diverse classrooms of today can be met through implementing the concept of differentiated instruction. Although early application of differentiated instruction activities focused on children who were gifted and talented, more recent application has used differentiated instruction strategies within the general education classroom to enhance the effectiveness of instruction for all students, including those with learning and behavioral disabilities. Students with varying academic readiness, interests, and learning profiles, including students with severe learning and behavioral disabilities, are now being included in general education classrooms. Differentiated instruction offers teachers in today's general education classrooms strategies to support the needs of an increasingly diverse student body. Differentiated instruction has become a "catch word" for curricular development for teachers in general education classrooms because it has proven effective in preparing curriculum and instruction to meet the needs of all learners.



As research on the concept of differentiating instruction continues to develop, there will be additional factors to consider. Will computer-based instructional presentations and social networking opportunities affect the development or implementation of differentiated instruction? What will be the result of the increased focus on response-to-intervention initiatives and the emphasis on addressing individual student needs (Bender & Waller, 2011)? How will the requirement for focusing lesson content and assessment of student progress on common standards (whether the Common Core or state standards) influence the use of differentiated instruction in classrooms of the future? Although there may be additional questions that will arise for teachers, the range of academic diversity most teachers will encounter will likely continue to increase. The aim of differentiated instruction is to provide a strategy to enable teachers to address the needs of all learners including those who are identified or not with learning and behavioral disabilities.