Strategies for Teaching Learners with Special Needs

Edward A. Polloway | James R. Patton

TWELFTH EDITION

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Preface

We are pleased to present the 12th edition of *Strategies for Teaching Learners with Special Needs*. It is our honor to share this book with preservice and in-service professional educators. We trust the information contained in this textbook will complement your knowledge and skills for teaching students with disabilities and other learning challenges.

Strategies for Teaching Learners with Special Needs has been published since 1977. This 12th edition provides contemporary and comprehensive coverage of curriculum and instruction for students with disabilities. Its breadth and depth are unique, with attention to effective strategies across 12 curricular areas as well as extensive discussion of curriculum and methodology in general and transition.

Our hope is that this book enhances your ability to take on the world's most important work—that of the teacher of students with special needs.

New to This Edition

- A separate chapter **(Chapter 8) has been added on written expression instruction** in order to significantly expand the coverage on this critical curricular area.

- A separate chapter **(Chapter 7) has been added on handwriting and spelling instruction** in order to provide further information about teaching these respective written language skills.

- A separate chapter **(Chapter 14) has been added on social competence** with increased attention to assessment, curriculum, and methodology related to social skills in learning.

- A separate chapter **(Chapter 15) has been added on self-determination**. While addressed in previous editions to a lesser extent, the new chapter has extensive information on assessment, curriculum, and methodology related to the critical development of self-determination skills in students with disabilities.

- The 12th edition of the book has further **increased its emphasis on evidence-based practices across curricular areas**. In particular, increased attention

has been given to the **importance of explicit instruction** as the best indicator of successful academic learning in students with disabilities.

Key Content Updates by Chapter

Chapter 1: This introductory chapter has been thoroughly updated with the most recent data on prevalence, participation across educational environments, and transition as related to students with disabilities and includes an enhanced overview of inclusion, access to the general education curriculum, effective instruction, and other educational program considerations.

Chapter 2: Chapter 2 provides the educational foundation for the remainder of the text with significant updates concerning the development of meaningful individualized educational programs, core curriculum and functional curricular considerations, and effective instructional practices including the importance of explicit instruction, grouping strategies, scaffolding, peer-mediated strategies, student-directed learning, and assistive technology.

Chapter 3: This chapter has been reorganized and updated in order to provide detailed information about teaching within a multi-tiered system of educational supports, universal design for learning, differentiated instruction, and collaborative partnerships with school personnel and families.

Chapter 4: Chapter 4 has been revised and reorganized in order to increase its focus on on classroom management and positive behavioral supports with detailed attention to universal management strategies, the implementation of behavioral strategies, and methods for addressing challenging behaviors in the classroom.

Chapter 5 (previously Chapter 6): This chapter has been thoroughly updated in order to reflect a discussion of reading difficulties, strategies for assessment, and contemporary research on effective instruction related to teaching word recognition strategies while also addressing information on teaching teaching fluency.

Chapter 6 (previously Chapter 7): Chapter 6's focus is on the nature of reading comprehension, appropriate

assessment strategies, and thorough updating of instructional strategies for developing vocabulary and teaching text comprehension strategies.

Chapter 7: This edition of the book, for the first time, includes a separate chapter on handwriting and spelling instruction. Both of these two written language tool subjects are discussed in detail with extended coverage of strategies for assessment and instruction.

Chapter 8: This chapter is solely focused on written expression instruction. The major revision of this topic, in addition to its inclusion in its own separate chapter, in increased attention to assessment and significant enhancements in instructional strategies that cover, in comprehensive fashion, the development of vocabulary, sentence and paragraph development, and composition strategies.

Chapter 9: This chapter has been reorganized and thoroughly updated to provide extensive information on the teaching of mathematics. In particular, the chapter has enhanced information on assessment, teaching math within a multi-tiered system, evidence-based general instructional considerations and strategies, and specific information on teaching computation and problem-solving skills.

Chapter 10: This chapter focuses on instruction in social studies with detailed information provided about social studies curriculum, the specific difficulties that may be associated with social studies achievement, assessment, and extensive discussion about instructional strategies.

Chapter 11: This chapter addresses science with special attention to the importance and also the challenges of science learning for students with special needs. The information on instructional strategies in science has been updated and expanded.

Chapter 12 (previously Chapter 14): This chapter emphasizes functional academics (referred to as applied academics in the previous edition). The chapter provides a unique focus on functional academics across curricular areas (inclusive of reading, language arts, writing, mathematics, science, and social studies) and addresses how functional academic curriculum can be embedded into the general education curriculum.

Chapter 13 (previously Chapter 12): The critical area of study skills is addressed in this chapter with important updated information about the nature of study skills, their relationship to executive function, their assessment, instructional strategies, and vignettes illustrating such instruction.

Chapter 14: This chapter is now a separate chapter focused on social competence. Given the importance of social development of students with disabilities, the chapter addresses in depth conceptual considerations related to social competence, means for assessment, curriculum, and social skills instruction.

Chapter 15: This chapter is now a unique separate chapter focused on self-determination. Given the importance of this critical skill area for students with special needs, this chapter now provides significantly expanded coverage of, and attention to, the concept of self-determination, specific skills within the area, assessment, curricula, and instructional methodology. Furthermore, the chapter includes a new emphasis on self-determination within the context of instructional and life planning.

Chapter 16 (previously Chapter 15): This chapter serves as a conclusion to the book with its emphasis on transitional considerations. The chapter provides a strong foundation on career education and then addresses transitions as they occur throughout the school years. The primary focus is on transition planning and programming for students as they leave secondary education, with significantly expanded and contemporary information on this key transition.

Throughout the book, there is increased emphasis on the importance of evidence-based practices and in particular the importance of explicit instruction across multiple chapters. The significant revisions of all of the chapters are reflected in part in the fact that over 200 new reference citations to contemporary research in special education have been added.

Pedagogical Features

Strategies for Teaching Learners with Special Needs, 12th edition includes a number of pedagogical features throughout the book. The following features provide important complements to the core textual material within the respective chapters of the book:

- **Teacher Tips**—Teacher Tips are included in the content-area chapters that relate to elementary- and secondary-level teaching and provide extended information about specific instructional strategies and considerations.
- **Diversity Boxes**—These boxes, contributed by outstanding professionals from throughout the country, relate specifically to content across the

respective chapters and provide a broader understanding of the diversity of students in today's classroom and the implications for instruction.

- **Activities**—Specific and extensive suggestions are presented for the curricular content chapters to provide examples on how core instructional concepts discussed in the chapter can be incorporated and/or applied to classroom activities and routines.
- **Learning Outcomes**—The chapter learning outcomes provided at the beginning of every chapter focus the reader on key information that will be presented and serve as an advanced organizer for the major points of the chapter.

Pearson eText, Learning Management System (LMS)–Compatible Assessment Bank, and Other Instructor Resources

Pearson eText
The Pearson eText is a simple-to-use, mobile-optimized, personalized reading experience. It allows you to easily highlight, take notes, and review key vocabulary all in one place—even when off-line. Seamlessly integrated videos and other rich media will engage you and give you access to the help you need, when you need it. To gain access or to sign in to your Pearson eText, visit https://www.pearson.com/pearson-etext.

Features for this book include:

- **Video Examples** Each chapter includes *Video Examples* that illustrate principles or concepts aligned pedagogically with the chapter. Multiple links are included that lead the reader to brief videos that illustrate and/or further explain specific strategies discussed in text.
- **IRIS Center Modules** IRIS Center modules, headquartered at Vanderbilt University, are interactive online learning modules that describe strategies shown to be effective in teaching students with disabilities. Various modules have been selected by the authors and are linked in the Pearson eText

LMS-Compatible Assessment Bank
With this new edition, all assessment types—quizzes, application exercises, and chapter tests—are included in LMS-compatible banks for the following learning management systems: Blackboard (**9780136882619**), Canvas (**9780136882589**), D2L (**9780136882527**), and Moodle (**9780136882701**). These packaged files allow maximum flexibility to instructors when it comes to importing, assigning, and grading.

Assessment types include:

- **Learning Outcome Quizzes** Each chapter learning outcome is the focus of a *Learning Outcome Quiz* that is available for instructors to assign through their Learning Management System. Learning outcomes identify chapter content that is most important for learners and serve as the organizational framework for each chapter. The multiple-choice questions in each quiz will measure your understanding of chapter content, guide the expectations for your learning, and inform the accountability and the applications of your new knowledge. When used in the LMS environment, these multiple-choice questions are automatically graded and include feedback for the correct answer and for each distractor to help guide students' learning.
- **Application Exercises** Each chapter provides opportunities to apply what you have learned through *Application Exercises*. These exercises are usually short-answer format and can be based on Pearson eText Video Examples or written cases. When used in the LMS environment, a model response written by experts is provided after you submit the exercise. This feedback helps guide your learning and can assist your instructor in grading.

Instructor's Manual (0136883125/9780136883128)
The Instructor's Manual is provided as a Word document and includes resources to assist professors in planning their course. If you do not use a Learning Management System, or if you prefer to administer assessments on paper, you can copy and paste items from the manual to create your own quizzes, assignments, or tests.

PowerPoint® Slides (0136882870/9780136882879)
PowerPoint slides are provided for each chapter and highlight key concepts and summarize the content of the text to make it more meaningful for students.

Note: All instructor resources—LMS-compatible assessment bank, instructor's manual, and PowerPoint

slides—are available for download at www.pearson-highered.com. Use one of the following methods:

- From the main page, use the search function to look up the lead author (i.e., Polloway) or the title (i.e., *Strategies for Teaching Learners with Special Needs, 12e*). Select the desired search result, then access the "Resources" tab to view and download all available resources.

- From the main page, use the search function to look up the ISBN (provided above) of the specific instructor resource you would like to download. When the product page loads, access the "Downloadable Resources" tab.

Acknowledgments

Brief Contents

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Chapter 1

Special Education: An Introduction to Teaching Students with Special Needs

Learning Outcomes

Upon completion of this chapter, the reader should be able to:

1.1 Identify the populations of students with disabilities that are the primary focus of the text and summarize information concerning categories of exceptionality, prevalence, and educational environments for these students.

1.2 Identify and discuss significant educational program considerations for students with special needs.

Special education was established to ensure that students with disabilities were provided opportunities to reach their learning and postschool potentials. Over 50 years have passed since the initial passage of the Education for All Handicapped Children Act (P.L. 94-142), later re-named the Individuals with Disabilities Education Act (IDEA). The key focus was to provide a free, appropriate education to students who, in many instances, had not received such opportunities in the past.

Special education is different today in a number of ways than in the earlier days after P.L. 94-142. The majority of students with disabilities receive most or all of their education in the general education classroom. Standards-based education often now drives what schools do and how teachers function. Federal and state initiatives stress that students with special needs should have access to the general education curriculum. As special education has changed, so also has the role of the special education professional.

This text focuses on effective teaching methods with an emphasis on evidence-based practices. The strategies presented seek to provide teachers with an opportunity to extend and refine their repertoire of knowledge and skills.

This first chapter introduces a number of concepts and considerations that will then become the foundation of subsequent chapters. It is framed by several questions that relate to the provision of special education. The chapter begins with a discussion of the question of *who* the target populations for whom the topics addressed in the text are most appropriate. Next, we address the question of *through what*, briefly considering the concept of individualized educational programs for students with special needs. Subsequently, we briefly address the question of *where*, with attention to the assumption of inclusion of students with special needs in general education classrooms as well as attending to some introductory information related to collaboration. Then we look at the question of *what*, which relates to the curriculum for students, focusing in particular on students having access to the general education curriculum, including content commonly based on state standards or the common core of education. The focus then is on *how*, with a discussion of evidence-based practices to enhance the learning of these students.

Brief consideration is given to *with whom*, the collaborative partnerships with families that are important to successful programs in special education. Then, we address the question of *toward what*, looking specifically at school completion and transition. The chapter concludes with a discussion of professionalism.

Collectively, these concepts and considerations lay the foundation for much of the subsequent detailed discussion in this text and frame key aspects of the roles of special education professionals in schools. A final section of the chapter highlights the structure of the book.

Students with Disabilities

Learning Outcome 1.1   **Identify the populations of students with disabilities that are the primary focus of the text and summarize information concerning categories of exceptionality, prevalence, and educational environments for these students.**

The primary focus of this text is on strategies for teaching students who experience learning difficulties ("who?"). Included in this generic category are subgroups of students who may have been formally identified by schools in a variety of ways, using terms such as *learning disabled*, *intellectually disabled*, *emotionally disturbed/behaviorally disordered*, and *having attention-deficit/hyperactivity disorder* (ADHD; currently most often identified under the category of other health impaired). The particular terms vary on a state-by-state basis but, taken collectively, represent individuals who have often been referred to as constituting high-incidence disabilities or the more common term *mild disabilities*. However, the latter term frequently understates the significant learning needs of these students and thus inadvertently could be used to question their real need for specialized instruction. Based on data from the U.S. Department of Education (USDOE, 2019), these four key groups of students (those with learning disabilities, intellectual disability, emotional and behavioral disorders, and other health impaired) constituted 66.3% of individuals served under IDEA (see Figure 1.1). Percentages across key disability groups are highlighted in the figure.

Table 1.1 extends this analysis of prevalence by providing comparative annual data indicating the percentage of the school population with these selected disabilities. As can be noted in the table, this decade shows an overall reduction in the number of students

Figure 1.1 Percentages of Students Ages 6 to 21 by Disability Category

SOURCE: USDOE (2019). 41st Annual Report to Congress on the Implementation of IDEA, 2019 (p. 41). Washington, DC: Author. Data from fall 2017.
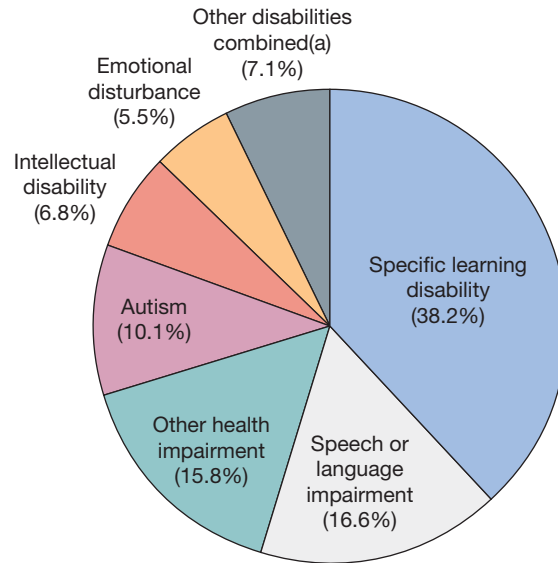
being identified. It also shows parallel trends of lower prevalence for learning disabilities, intellectual disability, and emotional disturbance but increases in other health impaired (due to ADHD). These groups of students total about 6.1% of the overall school population.

The data in Table 1.1 are nationwide, but educators function within a state environment. It is therefore interesting to note that the overall number of students with disabilities reported across the states ranged from a low of 6.4% in Hawaii to highs of 12.2% in New Jersey and West Virginia. State variance by category of disability is also quite common (USDOE, 2019).

Because federal and state legislation provide for special education based on certain eligibility standards

Table 1.1 Percentage of School Population with Selected Disabilities (Ages 6–21)

Category	2019 Report[1]	2003 Data
Specific learning disability	3.5%	4.3%
Intellectual disability	0.6%	0.9%
Emotional disturbance	0.5%	0.7%
Other health impaired	1.5%	0.9%[2]
All disabilities	9.2%	8.9%

SOURCE: Adapted from the USDOE (2019). 41st Annual Report to Congress on the Implementation of IDEA, 2019 (p. 43). Washington, DC: Author.

[1]Data from 2017.

[2]Data for Other Hearing Impaired from 2007.

within particular disability categories, we have begun our discussion of populations of students with disabilities from a categorical perspective. However, teachers are encouraged to consider several related caveats when attempting to match curriculum design and instructional methods to students' needs.

First, the population associated with specific categorical groups is continually influenced by public policy decisions and both research-informed and non-research-based professional decisions. Additionally, efforts to revise definitions and terminology regularly bring about regulatory changes that further alter those served under the labels of learning disabilities, emotional or behavioral disorders, intellectual disability, ADHD, or other disability designations.

Second, categorical labels convey little about curriculum design and specific teaching strategies that should be used. Such labels indicate only that a student has met a set of diagnostic criteria established by a state for a specific disability. Furthermore, these labels often indicate only that students so classified have experienced difficulty learning through traditional means or within traditionally organized general education classroom environments to such an extent that schools recognize and identify them. Ultimately, these students are likely to require more explicit, intensive, extensive, or highly individualized instruction to reach their learning potential and also require specific accommodations to existing curriculum.

Third, in a related vein, it is important that teachers view students with disabilities as students first and then address the needs that these students have for modifications in instruction and curriculum. Again, categorical labels do not yield specific prescriptions in terms of educational interventions.

Fourth, the strategies highlighted in this text have applicability for individuals with a variety of learning problems, regardless of whether they have been labeled as disabled or merely set apart from others in the classroom due to their difficulties. A large number of students who can be considered at risk for having academic, social, or behavioral difficulties will not meet eligibility criteria for special education yet may benefit greatly from the teaching methods presented in this text. Ultimately, an analysis of an individual's learning needs is necessary to determine the relevance of any particular curricular orientation or any specific instructional procedure.

Educational Program Considerations

Learning Outcome 1.2   **Identify and discuss significant educational program considerations for students with special needs.**

Educational programs for students with disabilities fall under the guidance of the Individuals with Disabilities Education Act of 2004. In the case of *Endrew F. v. Douglas County School District* (2017), the U.S. Supreme Court qualified the nature of special education services by affirming the fact that such programs must reflect not just some educational benefit to students but clear, appropriate progress (Zirkel, 2020). The *Endrew* decision stated that "merely more than *de minimus* progress from year to year can hardly be said to been offered an education at all. . . . The IDEA demands . . . that an educational program must be reasonably calculated to enable a child to make progress appropriate in light of the child's circumstances. To meet its substantive obligation under IDEA, schools must offer an IEP reasonably calculated to enable a child to make progress appropriate in light of the child circumstances" (p. 16). Thus, there should a direct impact on practice—schools should be accountable for monitoring the progress of students and making appropriate adjustments when there is a demonstration of poor responses and progress (Fuchs et al., 2018; Lemons et al., 2018).

Individualized Educational Program

All students identified as having a disability under IDEA must have an *individualized educational program (IEP)*. The IEP ("through what?") is a written document summarizing a student's learning program. The major purposes of an IEP are to establish learning goals for an individual student, to determine the educational services the schools must provide to meet those learning goals, and to enhance communication among parents and other professionals about a student's program.

The IEP includes attention to the student's participation in general education, levels of performance, annual goals, the special education and related services and supplementary aids to be provided, and the program adaptations or supports for school personnel that will be provided to the child. Furthermore, the IEP addresses the ways in which the student's disability is

affecting his or her progress within the general curriculum. The IEP should explain the extent, if any, to which the student will not participate with students who are nondisabled. Significant detail on the development and implementation of meaningful IEPs is provided in Chapter 2.

School Inclusion

The most consistent theme in special education over the past 60 years has been the increasing commitment to and importance of providing persons with disabilities the opportunity to have a place in school and society. Schools seek to educate children with disabilities—to as great an extent as possible—with their peers who are nondisabled. The least restrictive environment (LRE) principle provided the initial impetus for students to attend school in the most inclusive setting possible, which is now most often defined as the general education setting (i.e., regular classroom). Educational placement answers the question of "where?". Figure 1.2 presents a graphic display summarizing educational placement options for students with disabilities. Table 1.2 then provides an analysis comparing data across selected groups of students with disabilities. The data reflect patterns in which students are placed, respectively, for more than 80% of the day in the general education classroom, between 40 and 79% of the time in the general education classroom (with the assumption that the remainder of the time is typically in resource rooms), and less than 40% of the school day in the general education classroom (i.e., in special education classes) and enrolled in other environments (defined as special separate schools, residential facilities, homebound or hospitalization programs, correctional facilities, or parentally placed in private schools). The clear trend

Figure 1.2 Percentage of Students Served under IDEA by Educational Environment

SOURCE: USDOE (2019). 41st Annual Report to Congress on the Implementation of IDEA, 2019, 2018 (p. 52). Washington, DC: Author. Data from 2016–17.
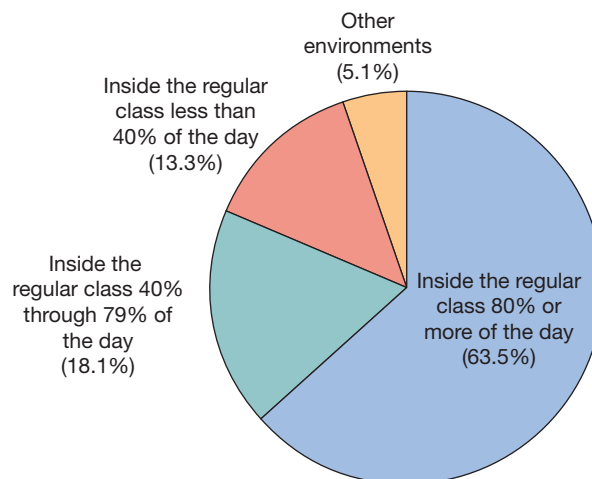
over the past several decades has been an increased percentage of students spending the majority of their time in general education classes with support from special education teachers (USDOE, 2019).

As noted in Table 1.2, the educational placement percentages vary across disability group. The expectation is that primary services for students with disabilities will clearly be in general education programs for students that are taught for all or a significant percentage of the school day. However, for some disability groups, especially for students identified as having intellectual disability and emotional/behavioral disorders, there remains a greater likelihood of educational placement being in inclusive settings for a smaller percentage of the school day and, particularly in the case of students with emotional and behavioral disorders, in other environments.

Table 1.2 Percentage of Students in Various Educational Environments (Ages 6–21)[1]

Category	> 80% in General Education	40–79% in General Education	< 40% in General Education	Other Environments
Specific learning disability	71.6%	21.6%	4.9%	1.9%
Intellectual disability	17.0%	26.7%	49.1%	7.1%
Emotional disturbance	48.0%	17.4%	18.0%	16.6%
Other health impaired	66.7%	20.4%	8.7%	4.2%
All disabilities	63.5%	18.1%	13.3%	5.1%

SOURCE: Adapted from the USDOE (2019). 41st Annual Report to Congress on the Implementation of IDEA, 2019 (p. 55). Washington, DC: Author.
[1]Data from 2017.

There are also significant differences between states in terms of educational environments. For example, the variance in terms of placement in the general education classroom at least 80% of the time ranges from 83.7% of all students with disabilities in Alabama to 40.6% in Hawaii. In terms of the percentage of students spending less than 40% of the time in the general education classroom, the range was from a high of 19.8% in New York to a low of 5.5% in South Dakota (USDOE, 2019).

Teachers must consider their role in providing effective instruction that facilitates the successful inclusion of students with disabilities in general education and in evaluating the efficacy of these efforts. The term *supported education* is an important complement to the concept of *inclusion* (Smith et al., 2020). It emphasizes that successful inclusion hinges on the provision of appropriate supports in the general education classroom as a basis for establishing a successful learning environment, particularly for students with special needs. The most critical supports for these students will come from highly effective special education teachers. While inclusive environments are now most often the "home" for the majority of students with disabilities, the premise of special education is still that their educational program is to be individualized.

Clearly, the majority of students with disabilities are placed in, and being taught in, the general education classroom. This is increasingly a reflection of the application of the three-tiered model for education (see Chapter 3 for a full discussion). Successful educational programs in general require that a collaborative environment be established within the school environment. Consequently, all special educators should presume that their ability to effectively collaborate with others is a significant part of their responsibilities. School collaboration considerations are addressed in Chapter 3.

Pearson eText
Video Example 1.1

In this video, a special education supervisor discusses placement issues and options for students with disabilities. What techniques does he use to involve the educators and the student's parent in the discussion?

Curriculum

The core of educational programs is the curriculum. It is the essential "what" question for education. For individuals with special needs, there is a long history of variance in terms of the nature of curricular emphases for the students. This section essentially provides an overview of the chapters that follow, which address the areas of the curriculum relevant to students with disabilities.

The general curriculum is the same curriculum as that afforded to students without disabilities. It is the explicit curriculum (i.e., clearly identified by the district or state) for the majority of students in the school, as defined by standards that states have identified. Access to the general education curriculum is an overriding theme of special education service delivery. It underscores the focus of the IEP developed for each student with a disability (see the prior section). A critical goal of special education is to help students gain those skills and acquire the knowledge that will allow them to access—and be successful in—the curriculum afforded to students who are not disabled.

Standards-based education refers to the curriculum in which what is taught is tied to the standards in the core subject areas of reading/language arts/English, mathematics, social studies, and science. The intent of developing standards is to have a common set of goals and mileposts. Although a number of ways exist for classifying standards, the most common distinction is between content standards that reflect the knowledge and skills that students are accountable for in academic subjects and performance standards that focus on achievement levels that they must meet to confirm proficiency. Most students with disabilities must meet a challenging set of standards and participate in the state testing process.

The trend toward standards-based education is reflected in development of the *Common Core State Standards* (CCSS; 2019). The Common Core Standards Initiative (2010) indicated that the standards are "research and evidence-based; clear, understandable, and consistent; aligned with college and career expectation; based on rigorous content in the application of knowledge through higher-order thinking skills; built upon the strengths and lessons of current state standards; and informed by other top-performing countries to prepare all students for success in our global economy and society" (para. 1). The focus of the CCSS is to prepare students to be career and college ready

(Council of Chief State Officers and the National Governors Association Center for Best Practice, 2010).

The standards, and the high-stakes testing that accompanies them, is a central fact of contemporary public education. The focal question now is not whether students with special needs will participate in a standards-based system but rather, more appropriately, how well students with special needs will do in this system.

Application Exercise 1.1
IRIS Module: Accessing the General Education Curriculum: Inclusion Considerations for Students with Disabilities.
This IRIS module explores having students with special needs access the general curriculum in inclusive classrooms.

A curricular dilemma facing professionals in special education, particularly for teachers at the secondary school level, is finding the balance between addressing the content and performance standards of the general education curriculum (within which most students with disabilities must show progress) while ensuring that the current and future needs of their students are addressed. Making curriculum and instruction more life relevant requires knowledge, skills, and effort. A functional curriculum is particularly relevant in considerations of special education programs for students with intellectual disability (Dymond, 2017). Particularly for this population, the functional focus in curriculum reflects its potential merits for successful post-school outcomes. An extensive discussion of functional curricular considerations is provided in Chapter 12.

ACHIEVEMENT ASSESSMENT. The advent of placing students with special needs in inclusive classrooms that followed the establishment of state standards has been accompanied by a parallel emphasis on student evaluation, typically by means of high-stakes testing. As Zumeta (2015) noted, "the inclusion of students with disabilities in the National Assessment of Educational Progress reports, as well as in states' and districts' high stakes assessments . . . brought much-needed attention to the poor achievement of students with disabilities" (p. 84).

Most students with disabilities take the regular districtwide or statewide tests; some who take these tests receive some type of accommodation or modification. In the USDOE (2018) report, for example, data indicated that in mathematics a range of 39.1–51.2% of all students with disabilities (across age ranges, grades 3 to high school) participated in regular assessments based on grade-level academic standards with accommodations, while an additional 35.0–48.0% participated without accommodations. The comparable numbers in reading with accommodations were 38.3–47.1% and without accommodations 39.0–48.8%.

Some students with more significant needs will be exempt from taking a regular standards-based test and will be administered an alternative assessment. According to the USDOE (2019), the percentage of students with disabilities who participated in assessments with alternate standards (i.e., assessments designed to measure the achievement of students with significant disabilities) ranged from 8.4–9.6% (mathematics) and 8.4–9.5% (reading) (across grade levels from grade 3 through high school).

UNIVERSAL DESIGN. In order to facilitate successful programs for students with special needs in the general education classroom, these programs should reflect features associated with the concept of universal design. Universal design has its foundations in the architecture as noted in contemporary design features (e.g., ramps, bathroom stalls, curb cuts). Universal design for learning (UDL) is then built on the assumption that there will be significant learner variability in all classrooms, that these classrooms will welcome all students, promote positive interactions, provide opportunities for students to demonstrate knowledge and skills through multiple means, provide flexibility in the presentation of information as well as in the ways in which students may demonstrate their skills or knowledge, remove barriers hindering access to the curriculum, accommodate learning differences with supports, and use technology (Cook & Rao, 2018; King-Sears, 2015; Rao et al., 2014). Although UDL has been promoted for over 20 years, attention may increase as UDL is written into the Every Student Succeeds Act (ESSA), the federal law governing elementary and secondary education (Polloway et al., 2021).

The primary features of UDL include:

- Attend to individual needs in a fashion that does not draw attention to any one individual.
- Be *proactive* rather than reactive in addressing student learning needs.

- Emphasize curricula and materials that attend to the needs of students with special needs while increasing utility for all students.
- Capitalize on accessible technologies and electronic resources.
- Provide flexibility in the ways information is presented, in the ways students respond or demonstrate knowledge and skills, and in the ways students are engaged (Smith et al., 2020). Universal design for learning is discussed in detail in Chapter 3.

Evidence-Based Practices

The principles of science have been incorporated into education through teachers using interventions that have empirical support, indicating that they work with the populations of students with whom they are being used. The genesis for the concept of *evidence-based practice* in special education comes from the assumption that education should be scientifically based. Appropriate educational programs are to be based on empirical assessments on the use of particular practices with students. Instructional methods answer the question of "how?" as posed earlier.

Cook and colleagues (2020) defined as evidence-based practice (EBP) "instructional practice supported as being effective for increasing an outcome for a population of learners by multiple, high-quality, experimental studies" (p. 7). Thus, EBPs are those methods that have demonstrated effectiveness based on consistent, credible research.

Historically, translating research into practice in education has lagged. As a result, difficulty exists in separating validated from nonvalidated interventions. To illustrate the concept, specific examples of evidence-based practices that are discussed in subsequent chapters include using data-based decision making; explicit instruction of basic skills, such as in terms of instruction in decoding in reading; teaching to mastery and the development of automaticity; using mnemonic strategies; assisting students in acquiring cognitive strategies to enhance independence in the learning process; using reading comprehension strategies; and implementing the concrete, semi-concrete, and abstract (CSA) model in mathematics.

EXPLICIT INSTRUCTION. An overriding consideration regarding evidence-based practice for students with special needs is that effective instruction for students with disabilities is consistently found to be explicit and systematic. *Explicit instruction* comes from roots in direct instruction, which has long history of effectiveness for students with disabilities (Datchuk, 2017; Hughes et al., 2017; Stockard, 2020). It provides a clear purpose for learning accompanied by clear and understandable directions and explanations. Explicit instruction focuses on the skills and strategies that are needed by students. Furthermore, it includes a process that addresses the importance of teacher-directed modeling and demonstration, logical sequencing of content, guided practice with specific feedback, independent practice by learners, maintenance activities including periodic review, and provisions for generalization (e.g., Calhoon, et al., 2019; Gerzel-Short et al., 2018; Little & Delisio, 2015; Riccomini et al., 2017; Therrien et al., 2017).

Systematic instruction, occurring in conjunction with explicit instruction, requires that teachers focus on instruction of a carefully selected and useful set of skills and that those skills are organized into a logical sequence for instruction. Students consequently know what is expected and why it is important. It requires a planned and ordered process to be followed.

Explicit and systematic instruction includes direct teacher modeling or explanation, frequent student responding reflective of high engagement and verified learning, direct and immediate feedback to student responses, and precise sequencing of content to be presented.

A related concept of importance is *intensive instruction*, which suggests that sufficient time is allocated to ensure comprehension. Moreover, intensive instruction includes a broad scope and sequence, incorporating the active participation of the student in the lessons (Vaughn et al., 2018). Lessons should include many opportunities for the students to try out what they have learned and should also include ample feedback for the students.

In sum, teachers should anticipate the need to provide explicit, systematic, intensive instruction to increase the likelihood that skills and strategies will be acquired by students with special needs.

CAUTIONS. There are several cautions concerning adopting appropriate educational practices. First, evidence-based research requires a quantity of research studies across settings and teachers with replication. Relatively few educational interventions have received the degree of research attention and validation to fully achieve the gold standard as discussed previously. Teachers should endeavor to integrate the best

available body of research evidence to teaching methodology, complemented by professional expertise. One might consider levels of assurance in terms of the validity of specific strategies for teaching with a continuum from intuition, observation, and expert endorsements to research based and evidence based or scientifically validated.

Second, it is important to consider the observations of Fuchs and Deshler (2007), who noted, "When we say an instructional approach is 'scientifically validated,' we mean it's a 'good bet' for many. It should be considered seriously for adoption, but it comes with no guarantees. No program is valid for all students or for all time" (p. 132).

Third, in a field traditionally beset with new and too often unproven ideas, teachers must also be cautious in adopting treatments that, at a minimum, threaten the availability of precious instructional time or financial resources. For example, Worrall (1990), in a classic treatise on health care interventions, provided a series of helpful suggestions that are also relevant to special education interventions:

- If it sounds too good to be true, it probably is.
- Be wary of any treatment or product offering a "cure." . . . Cures are few and far between.
- Be cautious when "complete," "immediate," "effortless," "safe," or "guaranteed" results are promised.
- Legitimate . . . researchers do not use words such as "amazing," "secret," "exclusive," "miracle," and "special" in describing treatments. (p. 212)

The clear call is for reliance on instructional practices that have a research base if they are to be used with students with special needs. The use of evidence-based practices in instructional programs will subsequently provide a strong foundation for successful school and life transitions that are critical for students with special needs. Effective instruction is discussed in greater detail in Chapter 2.

Culturally Responsive Instruction

Given the diversity present in the classroom, it is essential that teachers reflect an attitude of openness, sensitivity, and responsiveness to the particular needs and backgrounds of the students with whom they work. To do this, teachers must become culturally knowledgeable

and provide instruction that is culturally responsive. Smith and Tyler (2014) defined culturally responsive instruction/teaching (CRI/CRT) as instruction that "teaches to the strengths of each student while validating and affirming their cultures" (p. 66). Thus, CRI:

- Acknowledges and legitimizes different cultural heritages.
- Connects the meaning between home and school experiences.
- Uses a variety of instructional techniques that account for varied learning needs, preferences, and communication styles.
- Teaches students to understand and appreciate their own and others' cultural heritages.
- Incorporates multicultural knowledge, resources, and materials across subjects taught. (p. 66)

Application Exercise 1.2
IRIS Module: Cultural and Linguistic Differences: What Teachers Should Know.
This IRIS module discusses what teachers should know about cultural diversity and its implications for instruction.

Box 1.1 provides further information about cultural responsiveness (from Miller, 2018, p. 105).

Pearson eText
Video Example 1.2
In this video, the interaction between cultural differences and educational practices is discussed. Based on the video, what are some key ways that cultural differences affect instruction?

Partnerships with Families

Since the advent of P. L. 94-142 in 1975, parents have always been encouraged to participate in the special education process. Parents and family members represent the "with whom?" question as noted earlier in the chapter. However, the amount and quality of this participation has varied greatly. Parents must consent