

Excerpted from Chapter 2 of *Including Students with Severe and Multiple Disabilities in Typical Classrooms: Practical Strategies for Teachers, 3rd Edition*, by June E. Downing, Ph.D.

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This chapter highlights the changes that have occurred in approaches in general education and special education since 1980 and discusses parallels in these changes. This analysis is followed by a discussion of promising practices in general education for the inclusion of students with severe and multiple disabilities. Each of these discussions has four components, including 1) a description of the practice; 2) the empirical or theoretical base related to that practice, including data for students with disabilities, if these data exist; 3) the rationale for using the practice with students with severe and multiple disabilities; and 4) examples of how this approach would be used with students with severe and multiple disabilities.

Since 1980, numerous changes have occurred in education, fueled partly by the publication of *A Nation at Risk* (U.S. Department of Education, 1983). Title II of the Goals 2000: Educate America Act of 1994 (PL 103–227)—National Educational Reform Leadership, Standards, and Assessment—called for the development of statewide assessments for all students (Kleinert, Kearns, & Kennedy, 1997). Similarly, the Individuals with Disabilities Education Act (IDEA) Amendments of 1997 (PL 105–17) mandated assessment of academic progress for all students with disabilities. This mandate usually translated into students with mild or moderate disabilities taking the same standardized tests taken by general education students with or without accommodations, whereas for students with severe or multiple disabilities, this involved taking an alternate assessment. Another important mandate of this law was the requirement that individualized education program (IEP) teams consider the need for assistive technology in students' IEPs

The passage of the No Child Left Behind Act of 2001 (PL 107–110) prompted a dramatic overhaul of the then-current educational system. Increased accountability for all students is one of the main focuses of this law requiring the administration of standardized testing of all students in several grade levels as a means of documenting adequate yearly progress in schools. Test result data are disaggregated by disability and by students whose primary language is not English. The material contained on these tests is drawn from content standards in the respective fields of reading, mathematics, and science. Students with severe disabilities are assessed via alternate assessments that might involve developing a portfolio to document progress.

A major change in the education of students with severe disabilities resulted from the 1997 IDEA amendments and was further strengthened in the 2004 reauthorization (PL

108–446). This legislation stresses the rights of all students with disabilities to participate fully in the general curriculum—to have access and demonstrate progress. Furthermore, the legislation mandates that a general education teacher is to be a member of each student's IEP team. Sound rationale exists for all students, including those with the most significant disabilities, to have access to the core curriculum. The core curriculum provides an age-appropriate context within which a variety of skills can be taught, rather than trying to teach these skills in isolation, with little if any context. Students without disabilities provide the impetus for ongoing learning, as they assume primary responsibility for carrying out routine activities of the day, thus providing natural support. Without access to age-level core curriculum, missed learning opportunities can prevail.

Higher expectations for student performance exist when students are in general education classrooms and have access to the core curriculum (Turnbull, Turnbull, & Wehmeyer, 2006). In an inclusive classroom, when all other students are being expected to work on curricular activities, the same expectation is present for the student with significant disabilities (although perhaps in a somewhat different manner and depth). In fact, after reviewing 128 studies on literacy for students with cognitive disabilities, Browder, Wakeman, Spooner, Ahlgrim–Delzell, and Algozzine (2006) suggested that students with significant cognitive disabilities may not have learned to read in the past because they were either not taught to read or were not taught with methods that promote literacy. General and special education teachers working together on the same curriculum would likely avoid such a major concern. Finally, without access to the core curriculum, students with disabilities may miss out on topics of interest. Because educators cannot foretell what is going to motivate a particular student to learn, it is critical that each student, with or without disabilities, be allowed access to the core curriculum with the necessary supports and services. Given the national significance of the educational movement discussed previously and the IDEA amendment mandates, it is imperative that all students with disabilities have access to the core curriculum and be included in standards-based education reform (Boundy, 2000; Browder & Spooner, 2006; Lipsky & Gartner, 1997).

EDUCATIONAL REFORM EFFORTS

In terms of curricular approaches, there has been an increasing emphasis on a more holistic approach to education since the second half of the 20th century (von Glasersfeld, 1995). This approach is a result of the constructivist movement, which emphasizes that learning is individualized, social, and occurs in context. In other words, students construct and build on their own knowledge via interactions with their environments (Reid, Kurkijian, & Carruthers, 1994). Thus, the teacher serves as a facilitator or mediator of learning, as opposed to a disseminator of knowledge. The work of Vygotsky (1978) has been influential in this shift in thinking and practice.

The constructivist approach lends itself to inclusion because it emphasizes that learning is a social process, thus stressing peer-to-peer learning and support. It is also compatible with individual student goals and outcomes because acquisition of knowledge is based on students' abilities and interests. Jackson, Reid, and Bunsen asserted that constructivism

"Provides a framework for accepting all students as equal members of a community of learners rather than as differentially positioned achievers on a hierarchical skill sequence. This acceptance contrasts markedly with one of the legacies of past interpretations of the reductionist perspective: requiring individuals to 'earn' membership in the school community through the acquisition of externally defined 'functional' or 'appropriate' skills." (1993, pp. 292–293)

Another reform effort, the standards-based curriculum, currently dominates the provision of education at all grade levels. Following years of dissatisfaction with education for the nation's children in general, educational reform has targeted accountability and high expectations for both student and teacher performance. Educational programs are linked to identified standards across three academic areas—reading, math, and science—with large-scale assessments used to determine student progress (Flowers, Browder, Ahlgrim-Delzell, & Spooner, 2006). Such assessments typically occur during Grades 3–10 for all students, except for those determined to be unable to participate. Of critical importance is the alignment among what is taught (standards), how it is taught (instruction), and how it is evaluated (assessment). The challenge is to ensure that all students benefit from this focus on accountability.

CHANGES IN EDUCATIONAL APPROACHES FOR STUDENTS WITH SEVERE DISABILITIES

Quite dramatic shifts have occurred in the recommended approaches for educating students with severe disabilities. Until the late 1970s, a developmental curricular approach dominated instruction for these students. This approach was characterized by a belief that in each curricular area (e.g., cognitive, motor), a hierarchical sequence of relatively isolated skills existed, and that students needed to acquire prerequisite skills before moving on to higher-level skills. Assessments based on developmental checklists yielded developmental ages that were used to determine instructional activities, materials, and performance criteria, with little if any attention paid to the students' chronological age or to the demands of the environment. Because instruction occurred in self-contained classes, skills were taught in a decontextualized fashion, and the environment was contrived. For example, a typical classroom for adolescents with severe disabilities often involved students putting pegs in a pegboard, pasting snowmen on a January calendar, and sorting cardboard shapes.

In the late 1970s, a functional curricular model was proposed (Brown et al., 1979). This model suggested that students with severe disabilities be taught the skills they needed to be as independent as possible in school, home, community, and work environments. Instead of teaching individual motor skills, socialization skills, communication skills, and so forth, at a designated time (often out of context) and according to a prescribed hierarchy, these skills would be embedded in skill routines that would be taught within age-appropriate activities at naturally occurring times (e.g., communication skills could be addressed at recess, lunch, and in small-group instruction). This shift toward contextually based instruction appears to parallel the shift toward more holistic concepts that came to dominate general education practices. Yet, because students with disabilities were still being educated mostly in self-contained classes, the classroom context itself was often a departure from general education classrooms insofar as they were characterized by less structure and routine, lower expectations for learning, and less group instruction.

Interestingly, instruction in general education classes follows a developmental model, characterized by scope and sequence charts included in many curriculum guides. The goal of inclusion is to have students with severe disabilities participating in general education classes, while simultaneously addressing the students' IEP objectives, as opposed to having students receive parallel instruction in the general education classroom. For example, if a class is doing a whole-group lesson on the three types of rocks, a student with severe and multiple disabilities should be participating among the other students, identifying rocks from nonrocks and determining their size and shape, for example, instead of sitting in the back of the classroom with a paraeducator working on something completely different, such as identifying colors. Curriculum for students with severe disabilities educated in general education classes, therefore, should be a combination of both the developmental and functional models. The context for learning would be a developmental approach (the general education classroom), while most of the objectives for the lesson would be functional or meaningful because they would be from the students' IEPs.

The challenge for teachers is to individualize instruction by having a student with disabilities participate in lessons in an appropriate (same-age) grade and discern what objectives would be relevant for that student. Teachers also need to add a functional component by identifying what IEP objectives could be practiced within each lesson and how learning opportunities to practice those objectives could be presented. The importance of curricular modifications is obvious under such a model, and considerable information exists on modifying the curriculum (Downing, 2002; Janney & Snell, 2004; Udvari-Solner, Causton-Theoharis, & York-Barr, 2004). Pertinent modifications would include streamlining the curriculum and infusing skill objectives. In a given lesson, the general education teacher would identify the objectives for the

class, and the special education teacher with expertise in educating students with severe disabilities would identify which of those objectives the student with disabilities would work on or determine if the objectives would need to be modified. For example, using the lesson on rocks described previously, if the general education teacher is interested in students learning to recognize the different types of rocks and how they were formed, the special education teacher will need to target the IEP objectives for the student with severe disabilities that could be practiced during the lesson (e.g., responding to simple questions asked by the teacher by grabbing a rock from two objects, pushing materials to the side when the lesson is over, determining the number of rocks).

In addition, the shift from a multidisciplinary service delivery model to a transdisciplinary model or an integrated therapy model (a variation of the transdisciplinary model) for students with severe disabilities parallels the shift in service delivery in general education. Within a transdisciplinary model, the child is viewed holistically by all team members, and family members play a key role on the team (Orelove, Sobsey, & Silberman, 2004). Each of the related services providers (e.g., occupational therapist, orientation and mobility specialist, physical therapist) assesses the student and makes recommendations that can be implemented by a number of people, one of whom choreographs the instructional program (typically the special education teacher). These recommendations involve skills to be taught in natural contexts, rather than in isolation. For example, a physical therapist might recommend that a kindergarten student learn to transfer from his wheelchair to a standing position, then use a wheeled walker to go 10 feet from the play center to the snack table with minimal assistance. The therapist would need to show the teaching staff how to have the student do this. Once the teachers were trained, the therapist would provide ongoing consultation to monitor the student's progress, ensure that the training was being implemented correctly and targeted at other appropriate times (e.g., on the way to lunch), and answer any questions the staff might have.

The shift from the specialist-reliant approach to an integrative-related services delivery as an exemplary model supports the practice of educating students with severe and multiple disabilities in general education classes (Cloninger, 2004). The specialist-reliant approach asserts that related services providers have specialized skills, knowledge, and training that others (e.g., parents, teachers) do not, and therefore only these skilled professionals can provide the necessary service. Integrating related services providers' expertise into students' overall progress so that all service providers can adequately support students when needed does not require the students to be removed from general education classes and routines to receive therapeutic support from specialists.

ANALYSIS OF CURRICULAR CHANGES FOR STUDENTS WITH AND WITHOUT DISABILITIES

Several parallels exist between the evolution of curricular program implementation for students with severe disabilities and for students without disabilities. Both fields have embraced a more holistic approach to education that is childcentered, with teaching taking place in natural and social contexts. As a result, activities planned for students tend to be more meaningful. Other approaches to assessment that stress more authentic evaluation (e.g., portfolio assessment) are being used in conjunction with standardized assessment.

Several of the instructional approaches that have formed the cornerstone of education for students with severe disabilities rely on a behavior model (e.g., shaping using reinforcement of successive approximations). However, a strict adherence to behaviorism can run counter to a holistic constructivist approach because behavioral interventions support the identification of and instruction in discrete learning steps. Moreover, past educational practices for students with severe disabilities were developed for use in self-contained classes or segregated schools because these were the predominant environments for learners with severe disabilities in the 1970s and 1980s. With the move toward inclusive practices, those involved in special education are rethinking practices to determine how they can be made more suitable for general education environments.

Given that instruction in a general education environment should be a collaborative effort among general education and special education teachers, it is important to examine the beliefs, attitudes, and curricular frameworks adhered to by general education teachers because they are key decision makers in these settings. After interviewing 57 teachers, parents, and paraeducators from three inclusive schools, Downing and Peckham-Hardin (2007) found that the vast majority of participants held a very positive view of inclusive education. Teachers (both general educators and special educators) believed that students with moderate to severe disabilities should not only be physically present but also should be challenged, with everyone having high expectations for their learning. Eightynine percent of the participants, especially the teachers, recognized the critical need for meaningful modifications and collaborative teaming for students with moderate to severe disabilities.

The field of education of students with severe disabilities is at a critical juncture. Federal mandates in special and general education require that students with severe disabilities have access to the general education curriculum and are assessed based on their progress toward meeting content standards. This is a rather dramatic departure from past practice. Thus, it is imperative that teamwork and collaboration are emphasized and supported administratively. At an IEP meeting, one role of the

general education teacher is to articulate the content standards for that school year, while the special education teacher can suggest possible objectives for the student based on his or her level of functioning. Input from parents and other professionals also is solicited throughout this process.

Although the IEP provides broad brushstrokes of a student's program, much discussion must occur on a regular basis regarding the day-to-day decision making that creates successful inclusion. In this collaboration, the general education teacher should provide detailed descriptions of lessons being taught, content objectives being addressed, and activities within the lesson. The special education teacher and other professionals including the general education teacher need to discuss how the student can access that content in a meaningful way and what modifications need to be made based on the student's capabilities.

When a more holistic, constructivist approach is being used in a general education classroom, careful planning needs to occur to ensure that the instruction is more explicit for students with more severe disabilities due to these students' learning characteristics. During this planning, the team might consider the incorporation of traditional data-based practices in special education (e.g., time delay procedure, errorless learning) for a particular child during a given lesson. Many lessons in general education combine whole-class instruction, guided practice, and either small-group instruction or individual work. The more specialized instruction for students with disabilities could occur during the guided practice, small-group, or individual work time so as to minimize the amount of time the student receives parallel instruction. One example of how students with severe disabilities accessed the general education curriculum while working on modified objectives involved a classwide peer tutoring program (McDonnell, Mathot-Buckner, Thorson, & Fister, 2001). Browder and Cooper-Duffy (2003) provide an in-depth discussion of the issues surrounding the education of students with severe and multiple disabilities in accessing core curriculum in a meaningful way while receiving intensive specialized instruction in general education classes.

CHALLENGES LINKING SPECIALIZED INSTRUCTION WITH CORE CONTENT STANDARDS

Despite federal mandates, some states are struggling to align curricula for students with severe disabilities with core content standards. Browder et al. (2004) found that although some states did have strong alignment with math and reading content, other states had vague or weak links between what was taught to students with severe disabilities and content standards. A later study by Kohl, McLaughlin, and Nagle (2006) echoed these concerns, finding that states were struggling to align standards and alternate assessments. Furthermore, these researchers questioned the accuracy of

the alternate assessments. Essentially, they believed that the standards were being interpreted very broadly.

Some interpretations of standards may not reflect the knowledge inferred. For example, for a math standard on measuring using a ruler, interpreting it to refer to a student walking a certain number of feet using a walker would not accurately reflect measurement. Similarly, using soap to wash one's hands does not reflect a science standard of understanding the reactions from a mixture of certain chemicals. The fundamental knowledge implied by the content standard must be clearly aligned with the adapted way in which that standard will be demonstrated. For example, a California content standard for seventh–grade reading states that students should locate information by using a variety of consumer, workplace, and public documents. For a student with severe and multiple disabilities, this reading standard can be adjusted to address the student's ability to read pictorial menus at a fast food restaurant or read catalogues from retail stores, for example. Or a sixth–grade writing standard that targets using strategies of notetaking, outlining, and summarizing to impose structure on composition drafts can be modified for a sixth–grade student with severe and multiple disabilities so that the student will make choices from two pictorial/written options to complete fill–in–the–blank prewritten class notes.

PROMISING PRACTICES FOR STUDENTS WITH SEVERE DISABILITIES IN GENERAL EDUCATION ENVIRONMENTS

This section addresses educational approaches used in general education classes, which, because they accommodate diversity among learners, appear to be promising for students with severe and multiple disabilities. Although numerous studies support the inclusion of students with severe disabilities as a beneficial practice, few efficacy studies have been conducted to determine specific instructional strategies. Given the imperative of IDEA 2004 that instructional approaches used with students with disabilities must be evidence–based, it is important that researchers continue to study the efficacy of instructional approaches. The strategies cited here are offered as "promising practices" for two reasons. First, for some of these techniques (e.g., cooperative learning), data indicate that the technique was successful for learners with severe and multiple disabilities in general education classes and other contexts. Second, for other strategies (e.g., balanced or comprehensive literacy, differentiated instruction), learning characteristics of students with severe and multiple disabilities suggest the need for such an approach. Five approaches will be discussed: *cooperative learning, balanced or comprehensive literacy, universal design for learning, differentiated instruction, and culturally responsive practice.*