INCLUDING STUDENTS WITH EXTENSIVE AND PERVERSIVE SUPPORT NEEDS

Michael L. Wehmeyer, Karrie A. Shogren, Jennifer A. Kurth, Mary E. Morningstar, Elizabeth B. Kozleski, Martin Agran, Lewis Jackson, J. Matt Jameson, John McDonnell and Diane L. Ryndak

ABSTRACT

Since the passage of Public Law 94-142, federal law has prioritized the education of students with disabilities with their non-disabled peers in the context of the general education classroom. This chapter examines the progress, and often lack thereof, with regard to educating students with extensive and pervasive support needs in inclusive settings. We examine current trends in placement, factors that contribute to those placement practices, and what IDEA says about the education of students with extensive and pervasive support needs. We examine what the research suggests happens in substantially segregated settings and then,
in contrast, examine impacts and outcomes for students with extensive and pervasive support needs who are educated in inclusive settings. We also examine trends resulting from changing paradigms of disability that provide new opportunities for re-invigorating efforts to educate students with extensive and pervasive support needs in inclusive classrooms.

**Keywords:** Extensive and pervasive support needs; universal design for learning; social ecological models of disability; self-determination; multi-tiered systems of supports

It is well known that the passage of the Education for All Handicapped Children Act (P.L. 94-142) in 1975 established the right of all children with disabilities to a free appropriate public education and opened the school doors to millions of children with disabilities who, prior to the passage of the Act, were simply excluded from school. Those doors opened most gradually, however, for students with the most extensive and pervasive support needs (Jackson, Ryndak, & Wehmeyer, 2010); students who often had the most severe cognitive impairments and concomitant physical, communication, or mental health impairments. Several of the authors of this chapter who were teaching in the early 1980s recall students with extensive and pervasive support needs coming to school as adolescents for the first time in their lives.

And, when these students came into the schools, it was into a system that was substantially segregated, mainly because of a long (and often sordid) history of segregating people with cognitive impairments (Jackson et al., 2010). This history of segregation for these students has been perpetuated and persists today. The most recent report to Congress on the Implementation of IDEA (U.S. Department of Education, 2015), published in December 2015, rightfully celebrates that 62.1% of students receiving IDEA services do so inside the regular class 80% of the day or more, up roughly 10% from the decade before. And yet, for students with extensive and pervasive support needs, the progress has been glacial. Only 16.7% of students served under the category of intellectual disability spend 80% or more of their day in regular education and only 13.4% of students with multiple disabilities do so. It is a tale of two extremes for students with
Deaf-blindness, 23.6% of whom are educated in the general education setting for 80% or more of the day, but 29.5% of whom are educated in “other environments,” which include separate schools, residential facilities, and homebound/hospital settings. Almost half (49.1%) of students with intellectual disability are educated in the regular class less than 40% of the day, and only slightly fewer (46.2%) students with multiple disabilities are educated in regular classes less than 40% of the day. Almost a quarter (24.1%) of students with multiple disabilities are educated in other (highly segregated) environments. Overall, almost 65% of students served under the Deaf-blindness category receive their education outside the general education setting in substantially segregated settings more than 60% of their day; almost 57% of students served under the intellectual disability category do likewise; and, as do just over 70% of students served under the multiple disabilities category.

Morningstar, Kurth, and Johnson (2015) calculated an “inclusion index” based upon placement rates reported through the IDEA reports to Congress from 2000 to 2010. This index took the log of the ratio of the number of students in general education at least 80% of the day to students in general education settings 40% or less of the school day. In this index, a zero indicates that students have an equal probability of being in general education 80% or more of the day or 40% or less of the school day. Students with high incidence disabilities were more than 4 times as likely to be educated in the general education classroom 80% of the day rather than in the general education classroom less than 40% of the day (index = 1.27) in 2000, a proportion that increased to 9 times more likely by 2011 (index = 2.09). Students with low incidence disabilities were four times more likely to spend 40% or less of their day in general education in 2000 (index = 1.27). In the intervening decade, things improved, but students with low incidence disabilities were still 1.5 times more likely to be in general education 40% of the day or less than to be in the general education setting 80% of the day or more (index = −0.49).

Kurth, Morningstar, and Kozleski (2014) analyzed the National Center for Education Statistics (NCES) data to examine what groups of students are placed in special (segregated) schools. For data reported between 2007 and 2009, nearly 20% (19.7%) of students with multiple disabilities were placed in segregated schools, as were 18.4% of students with Deaf-blindness, and 6.2% of students with intellectual disability. Only students with emotional and behavioral disorders were similarly segregated at such high levels (13.1%). Further, 8.4% of students who were Deaf-blind were educated in segregated residential programs.
WHO ARE STUDENTS WITH EXTENSIVE AND PERVERSIVE SUPPORT NEEDS?

We will return to examine what happens in the substantially segregated settings in which students with extensive and pervasive support needs spend their time in a subsequent section. First, though, it is worth briefly discussing exactly which students we are writing about in this chapter. The history of special education has been a history of diagnosis and classification (Wehmeyer, 2013a). When the overarching terms for people we now refer to under the category of intellectual disability were feebleminded or mentally defective, the sub-classifications were idiot, imbecile, and moron. When the overarching term was mental retardation, the sub-classifications were custodial retarded, trainable mentally retarded, and educable mentally retarded, and, later, mildly, moderately, and severely and profoundly handicapped. Whatever the term, the common theme among these historic (and now highly offensive) terms was—and continues to be—low expectations for meaningful learning progress.

All of the above-referenced classification schemes used mental testing (and for virtually all of the systems since the 1920s, IQ testing) as the means by which groups are formed. The Individuals with Disabilities Education Act does this only to the extent that certain categorical areas (intellectual disability, developmental delay, multiple disabilities) require evidence of intellectual impairment as evidenced by substandard IQ scores for qualification purposes. IDEA does not further categorize students, and despite the fact that the term “severe disabilities” is widely used to refer to students across, typically, categories that include intellectual disability, multiple disabilities, Deaf-blindness, and some students with Autism. Severe disabilities is not an IDEA categorical area itself and is not defined in IDEA or used in the law. So, while the term “severe disabilities” is widely used to describe the population about whom we are writing, it’s lack of specificity is, in our opinion, problematic. There are certainly students whose learning disability or behavioral disorder are considered “severe,” and yet those are not students we discuss in this chapter. The same lack of specificity applies to referring to this population as students with “low incidence” disabilities or students with “significant disabilities.”

An alternative term that emerged with the school reform efforts implemented by the No Child Left Behind Act is the term “students with the most significant cognitive disabilities.” This term was introduced to refer to the approximately 1% of the students for whom school districts can
determine annual progress using alternate assessments (instead of state assessments, whether modified or not). This 1% certainly includes most of the students discussed in this chapter, and yet the fact that it is up to IEP teams to determine who takes the alternate assessment dilutes the “purity” of this designation as referring exclusively or primarily to the students about whom we are writing.

Increasingly, terminology and classification systems are moving away from models based upon level of deficits, and moving toward social-ecological or person-environment fit models that emphasize that disability is a function of the relationship between (or the fit between) a person’s capacities, the demands of the environment, and the supports that are provided to enable that person to be successful (Wehmeyer, 2013b). This movement has been led by the World Health Organization’s International Classification of Functioning, Disability, and Health (ICF), which defines *functioning* as an umbrella term for all life activities of an individual that encompasses body structures (anatomical parts of the body) and functions (physiological and psychological functions of body systems), personal activities (the execution of tasks or actions), and participation (involvement in a life situation) areas, and views disability as being problems or limitations in body structures and functions that limit personal activities and participation (Wehmeyer, 2013b).

In the ICF and similar frameworks, disability is seen as an outcome of the interaction between a person’s capacities and the environmental context in which that person must function (Schalock et al., 2010). Disability, within ICF-like models, is not something a person has or something that is a characteristic of the person, but is instead a state of functioning in which limitations in functional capacity and adaptive skills must be considered within the context of environments and supports. Instead of historic understandings of disability that perpetuated low expectations for meaningful learning progress, this strengths-based approach has the advantage of presuming that students can be successful, if provided the right supports, instruction, and opportunities. Viewing disability in this manner shifts the focus from a deficit within the person to the interaction between the person, his or her environment, and the supports that are in place to enable success. Thus, students with extensive and pervasive support needs are those students who need the most support to function successfully in school and in other life domains. Within IDEA classification systems, students tend to be served under the categories of multiple disabilities, deaf-blindness, intellectual disability, and some students with autism.
WHAT HAPPENS IN THE SUBSTANTIALLY SEGREGATED SETTINGS IN WHICH STUDENTS WITH EXTENSIVE AND PERVERSIVE SUPPORT NEEDS ARE PLACED?

We will discuss what IDEA expects in the education of students with extensive and pervasive support needs in the next section, but, at its core, special education services are intended to include specially designed instruction, beyond the scope of typical instruction, employing a range of teaching strategies that are unique to the needs of a particular student (Cook & Schirmer, 2003). Some interpret this need to deliver special and effective teaching as requiring special spaces with special teachers (e.g., Kauffman, Landrum, Mock, Sayeski, & Sayeski, 2005). For example, Landrum, Tankersley, and Kauffman (2003) argued the specialness of special education “lies at least partially in the contextual variables including structure, intensity, precision, and relentlessness with which teachers deliver, monitor, and adapt instruction, [which] is surely beyond that which would be possible in a regular classroom” (p. 153).

We have already established that students with extensive and pervasive support needs are overwhelmingly served in substantially segregated settings, from self-contained classrooms to separate schools. When assumptions about the effectiveness of such settings are tested, an emerging body of research reveals these settings to be limiting and ineffective. For example, Causton-Theoharis, Theoharis, Orsait, and Cosier (2011) observed 41 students with a range of disabilities taught in mostly elementary school self-contained classrooms in three states over seven years, with four themes emerging. The self-contained settings were found to lack community, with students often working in isolation, and little effort made by instructors to create a supportive community. Instruction in these settings lacked evidence of specialized curriculum or instruction, with significant portions of the school day spent in non-academic activities, such as eating snacks and playing games. A third theme related to distraction, with the authors noting the significant number of interruptions and distractions, ranging from adults interacting with one another to people coming and going constantly. Finally, Causton-Theoharis et al. (2011) described the lack of behavioral supports in the self-contained classrooms, with instructors engaging in restraint and seclusion, threatening students, and an overall lack of instructor effort to understand the communicative intent of student’s behavior. In reflecting on these classrooms, the authors concluded,
“we found it difficult to argue for fixing or improving these self-contained settings because everything we observed could have been transported to inclusive settings without compromising the education these students were receiving” (p. 73).

Observations of self-contained classrooms serving students with intellectual and developmental disabilities replicate these findings. For example, Pennington and Courtade (2015) observed self-contained classrooms serving students with moderate and severe levels of intellectual impairment to determine the extent to which teachers in these settings provided feedback and opportunities for students to respond. These researchers completed observations of 35 teachers and 35 students in K-12 self-contained classrooms and schools for 15 minutes each. Pennington and Courtade (2015) found students were overwhelmingly taught in small group and one-to-one teaching arrangements. Within these teaching arrangements, instructors provided inadequate pacing to sustain optimal opportunities for students to respond, while students were engaged in primarily passive activities.

Further corroborating these concerns about practices within self-contained settings is a study from Kurth, Born, and Love (2016). They observed 19 students and 9 teachers in 5 high-school classrooms across 4 school districts serving students with intellectual disability. Each observation was 45 minutes, with a time sampling method used to describe student and teacher behaviors as well as characteristics of the environment. Analysis of teacher behaviors in these self-contained classrooms reveals teachers were often spending time on tasks other than instruction, including paperwork and general classroom and personnel management. In fact, special education teachers were primarily observed working at their desks, and to a lesser extent teaching whole-group lessons. Paraprofessionals were observed providing the vast majority of instruction.

Furthermore, students were provided few opportunities to respond, were passive observers in most instructional activities, and completed the same activities and worksheets as their peers without any evident individualization. Additionally, approximately a third of the students in these observations had complex communication needs, yet there was no evidence of communication supports, and in fact, students with complex communication needs were less likely to interact with teachers and were more likely to be engaged in a passive task compared to other students in the classroom. Finally, similar to Causton-Theoharis et al. (2011), Kurth et al. (2016) found the self-contained classrooms to be highly distracting. Classrooms were infrequently arranged to support on-task work or collaborative interactions between students. Instead, the lack of physical and organizational
structure appeared to impact the behaviors of staff and students alike, resulting in a distracting atmosphere that often was not conducive to productivity or learning.

Access to the General Education Curriculum

The passage of the No Child Left Behind Act of 2001 and the 1997 and 2004 Reauthorizations of IDEA served as an impetus for conducting research that examines student involvement with and, particularly, progress in the general education curriculum. Research has found that students with intellectual disability who are in segregated settings have less such access than do students with intellectual disability in regular classroom settings. Wehmeyer, Lattin, Lapp-Rincker, and Agran (2003) observed 33 middle school students with intellectual disability for a total of 6,585 minutes across general education contexts and self-contained settings. During 70% of the observed intervals, students were engaged in a task related to a school district’s general education content standards. Of relevance to this discussion is that students served in general education contexts were observed working on tasks linked to a content standard in 90% of intervals while students served mostly in self-contained settings engaged in tasks related to a content standard in only 50% of the intervals.

Soukup, Wehmeyer, Bashinski, and Bovaird (2007) observed 19 elementary students with intellectual and developmental disabilities for a total of 1,140 minutes and recorded the occurrence of curriculum adaptations and augmentations. Though this research was conducted four years later, the results of this study mirrored the Wehmeyer, Lattin, et al. (2003) findings. In general, students with intellectual and developmental disabilities were observed working on grade-level content standards in 60% of the intervals, which was three times the frequency of intervals in which they were observed working on a content standard linked to just any grade (20%). Differences were especially apparent, however, in the frequency of intervals in which students worked on grade-level content standards as a function of their participation in general education contexts. Students in general education contexts were observed working on an activity linked to any general education content standard in 97.5% of intervals, and they were observed working on an activity linked to their specific grade-level content standard in 83% of these intervals. Students not included in general education contexts were observed working on an activity linked to any general education content standard in only 46.1% of intervals, and there was not a single
interval (0%) in which these students were observed working on a grade-level content standard.

Finally, nationally representative studies, including the Special Education Elementary Longitudinal Study (SEELS) and the National Transition Longitudinal Study-2 (NLTS-2) corroborate these findings. Date from the NLTS-2, for example, shows that students in general education classrooms performed at a higher rate than students in self-contained settings even when there were no specific supports, suggesting that access to peer models and group performance informed and influenced the behavior of students with intellectual disability (Blackorby et al., 2005). The unambiguous message from these studies is that the “context,” or “place,” in which students with extensive support needs gain access to the general education curriculum is, in fact, the general education classroom.

WHAT DOES IDEA SAY ABOUT THE EDUCATION OF STUDENTS WITH EXTENSIVE AND PERVERSIVE SUPPORT NEEDS?

Throughout its history, IDEA has emphasized that to achieve FAPE, special education and related services should be provided that create equal opportunities for students with disabilities to benefit from their education and be sufficiently prepared for future education, employment, and independent living. As such, the law has consistently stated that special education is specifically designed instruction to promote an equal opportunity for educational benefit for students with disabilities. The 1997 and 2004 Amendments to IDEA made clear that each student’s educational program, and resultant specially designed instruction, should be based upon two sources: (a) the general education curriculum, defined as the same curriculum as that provided to all other students; and (b) the student’s unique learning needs. The “access to the general education curriculum” mandates required that all students receiving special education services have the supports necessary for them to be involved with and progress in the general education curriculum as well as goals and modifications to address their unique learning needs. This represented a major shift in curricular focus, particularly for students with extensive and pervasive support needs, as historically the educational emphasis for these students was on unique learning needs and the application of a “functional curriculum” (Browder, Spooner, & Meier, 2011).
While the law has increasingly defined the “what” of education as both the general education curriculum and the student’s unique learning needs, it has largely left decisions related to the “how” and “where” to IEP teams responsible for developing individualized plans for each student. Historically, the least restrictive environment (LRE) language within IDEA has been interpreted to allow for placements outside of general education along a continuum from most to least inclusive. Specifically, IDEA states that “to the maximum extent appropriate, children with disabilities … are educated with children who are not disabled, and special classes, separate schooling, or other removal of children with disabilities from the regular educational environment occurs only 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” (20 U.S.C. 1412(a)(5)(A)). We italicize “with the use of supplementary aids and services” because too often the interpretation of when to place a child outside the general education classroom is made based solely upon the “nature or severity” of the child’s disability.

The presumption that students with extensive and pervasive support needs are better served in segregated settings dates back to the passage of PL 94-142 and the notion that these students needed a specialized curriculum requiring delivery in a separate setting and, as discussed previously, the practice of placing students with extensive and pervasive support needs in substantially segregated settings has remained static over the last four decades (Kurth et al., 2014). While there are schools and districts in which educational placements for students with extensive and pervasive support needs are linked to general education curriculum and classrooms, this is not the norm. Schools still operate a placement continuum, continuing to make decisions based on severity of disability and ingrained school processes, procedures, and programs (Jackson et al., 2010).

FACTORS IMPACTING PLACEMENT DECISIONS

Given what we know about placement decisions for students with extensive and pervasive support needs and what IDEA expects, what factors are influencing current placement decisions? Researchers have suggested that service decisions (including placement) are often based on locally available resources, rather than family preference, child needs, or empirical evidence (Dymond, Gilson, & Myran, 2007). Furthermore, once a student is placed...
in a specific type of setting (i.e., inclusive, self-contained, or separate), the child tends to stay in that setting, further heightening the impact of placement on outcomes (Kurth et al., 2014; White, Scahill, Klin, Koenig, & Volkmar, 2007). Existing research suggests that placement decisions might be influenced by child-specific factors, such as disability label and cognitive functioning, as well as external factors, such as the setting where intensive instruction is available, existing classroom arrangements, teacher expertise, and local education practices, policies, and financing.

**Child-Specific Factors**

Frequently, child factors are identified as primary considerations in making educational placement decisions. For example, younger students with higher IQ scores are more likely to be educated in inclusive settings (Harris & Handleman, 2000). In one experimental study, first grade teachers were more likely to place a hypothetical student in a more restrictive setting if the student was described as having a lower IQ score (Segall & Campbell, 2014). While much of the available research seems to imply that disability label is a primary factor in determining placement, other factors that might influence placement have been identified, including gender, racial or ethnic background, and socio-economic status (de Valenzuela, Copeland, Huaqing Qi, & Park, 2006; Kozleski, Artiles, & Skrtic, 2014). For example, Lauderdale-Littin, Howell, and Blacher (2013) found that students placed in more restrictive settings were more likely to have lower family income.

Another body of research has documented the influence of parent perceptions of inclusive education. Parent priorities might impact placement decisions, particularly given parents’ role as a member of the IEP team (Dymond et al., 2007). Leyser and Kirk (2004) found that, generally, parents of children with disabilities were supportive of the concept of inclusive education, but were concerned about specific issues that might impact their child (e.g., social isolation, negative attitudes, quality of instruction, and teacher training). It is also plausible that the availability of services (or lack thereof) might play a contributing role (Hehir, 2012).

**Classroom and School/District Level Factors**

Researchers have found that school policies and financing (Tissot, 2011) influence placement decisions, such as the availability of specialized,
intensive instruction across diverse settings (e.g., inclusive, self-contained, separate schools; Kurth & Mastergeorge, 2010a). Additional factors include teacher: (a) training (Moreno, Aguilera, & Saldana, 2008), (b) attitudes (Pivik, McComas, & LaFlamme, 2002), (c) expertise with instructional techniques, such as intensive instruction, universal design for learning and multi-tiered systems of supports (latter two discussed in greater detail subsequently) (Dymond et al., 2007), and (d) issues pertaining to institutional racism (Kozleski, Artiles, & Waitoller, 2014). District and school guidance and policy regarding available options for placement, as well as dynamics within the IEP team decision-making processes, also impact placement (Zollers, Ramanathan, & Yu, 1999). Avramidis and Norwich (2002) noted teachers’ attitudes toward inclusion were influenced by: (a) child variables, such as the severity of the child’s disability; (b) educational variables (e.g., availability of both physical and personnel support); and (c) teacher variables, such as gender, grade level taught, experience, training, beliefs and teaching style, and socio-political views.

The presence of a strong and engaged site administrative leadership has been noted to influence the quality of instruction and student outcomes (Ainscow & Sandhill, 2010; Waldron & McLeskey, 2010). Leadership from the school principal in the form of caring about and investing in teachers, providing opportunities for distributed leadership, protecting teachers from the pressures of high-stakes accountability (Hoppey & McLeskey, 2013) and school culture (Sailor, 2009) all may shape placement decisions.

IMPROVING INCLUSIVE OUTCOMES FOR STUDENTS WITH EXTENSIVE AND PERVERSIVE SUPPORT NEEDS

There are a number of practices in education that evidence the impact of the social-ecological models of disability discussed previously and that provide a pathway to improving inclusive outcomes for students with extensive and pervasive support needs. These practices emphasize both the enhancement of personal capacity and the modification of the context in which the student learns, including modifications to the curriculum itself that reduce the gap between the student’s capabilities and the demands of the environment. These practices include applications of Universal Design for Learning, the use of educational and assistive technology, implementation of multi-tiered systems of supports and promoting access to the general education curriculum.
Third Generation Inclusive Practices

Turnbull, Turnbull, Wehmeyer, and Shogren (2016) suggested that the new paradigm of disability and the design of supports to enable students with disabilities to be successful have led the field of education into a third generation of inclusive practices. The first generation of inclusive practices focused on changing prevailing educational settings for students with disabilities from separate, self-contained settings to the regular education classroom. The second generation of inclusive practices focused on improving practice in the general education classroom. Research and practice during this phase emphasized aspects of instructional practices that promoted inclusion, such as collaborative teaming and team teaching, differentiated instruction, developing family/school/community partnerships, and so forth. We presume that these strategies are well covered in other chapters in this text, and have opted not to recite these, but instead to focus on those practices that are emerging that might break the logjam of segregation for students with extensive and pervasive support needs.

The question that was too often not asked was “inclusion into what?” (Kozleski, Artiles, & Waitoller, 2014). The most salient characteristic of the third generation of inclusion is that the focal point for such efforts switch from advocacy and supports with regard primarily to where and how a student receives his or her educational program, which Turnbull et al. (2016) suggested was the focus of the first two generations of inclusive practices, to a focus on what the student is taught. The third generation of inclusion presumes a student’s presence in the general education classroom and instead of a focus on integration into the classroom, the emphasis is on the quality of the educational program in that setting. Nothing about the first or second generations of inclusion is either obsolete or unimportant, of course. In fact, both remain critical to ensure high quality educational programs for students with disabilities. Third generation inclusive practices also involve deep understanding of the cultural historical practices that transcend all public institutions (Kozleski, Artiles, & Waitoller, 2014).

Access to the General Education Curriculum

The most visible change in educational practice of the last decade has been the shift toward promoting access to the general education curriculum for students with disabilities. The IDEA reauthorization of 1997 required schools to ensure that students are involved with and make progress in the
general education classroom through the provision of modifications to the
curriculum and of supplementary aids and services the ensure that students
are educated with their non-disabled peers to the maximum extent. Practices that have emerged as related to new ways of thinking about
disability enable us to meet the challenge presented by third generation
inclusive education demands and to promote access to the general educa-
tion curriculum.

Instructional Intensity versus Placement

Kauffman and Badar (2014) asserted that the bedrock of special education
is instruction that results in measurable learning outcomes, and not place-
ment. As we noted previously, IDEA defines special education as specially
designed instruction. In research with students who are either struggling
learners or who have identified learning disabilities, the term intensive
instruction is commonly used to describe specialized, pullout instruction.
The term embodies practices that utilize focused, explicit instruction of
targeted skills, delivered in either one-to-one or small group formats to
learners shown to have skill deficits in the area of instruction (Al Otaiba
et al., 2014; Fuchs & Fuchs, 2015; Vaughn, 2015). In a recent study, Fuchs
et al. (2015) reported that “very low functioning” fourth graders acquired
math skills associated with fractions significantly better when pulled out for
specialized instruction compared to a control group who received “inclu-
sive” instruction. However, Fuchs et al. noted that what occurred in the
general education classroom was relatively minimal in terms of instruc-
tional supports and, therefore, the interaction of placement and services
(i.e., can intensive instruction only be provided in pull out settings?) was
not directly examined.

The reason we bring this up here is to point out that whether or not pla-
cement versus services is the issue that is at play in the notion of intensive
instruction, it is clear that, for students with extensive and pervasive sup-
port needs, when the location of instruction is outside of general education,
the purpose for the specialized, intensive instruction is framed not as aug-
menting growth in general education curriculum content, but as skill acquisi-
tion toward a separate and specially designed curriculum that does not
relate to general education curriculum content (Jackson, 2014; Kurth &
Mastergeorge, 2010b). In these circumstances, placement serves both as the
source of instructional content and for assessing learning (Allor, Mathes,
Roberts, Jones, & Champlin, 2010; Browder, Ahlgrim-Delzell, Courtade,
Gibbs, & Flowers, 2008). However, when placement is in the general education classroom, intensity has a different purpose for students with extensive and pervasive support needs; and becomes directly relevant to providing access to and promoting progress in age-level general education curriculum content. For example, using the method known as embedded instruction, targeted aspects of the curriculum are taught via repeated moments of direct-trial instruction within the stream of instruction that is typically occurring for all students in the general education grade-level class (Jimenez, Browder, Spooner, & Dibiase, 2012; McDonnell et al., 2006). Along with time and directness of instruction, intensity here also requires consideration of distribution of trials (Collins, Evans, Creech-Galloway, Karl, & Miller, 2007).

Universal Design for Learning

The advent of universal design for learning (UDL) has impacted what constitutes intensity when the context of instruction is the general education classroom for students with extensive and pervasive support needs (Wehmeyer, 2014). Historically, content information, particularly in core academic areas, has been presented solely through print-based formats (textbooks, worksheets) and lectures. Students who cannot read well or who have difficulty with memory or attention do not have access to the content presented through these mediums and, thus, do not have the opportunity to learn that content. Applying principles of UDL to curriculum development by providing multiple means for presenting information and for students to respond to that information is an example of the impact of the emphasis in social-ecological models of disability on modifying the context, in this case the curriculum, to ensure a better fit between the student’s capacities and that context.

Universal design for learning promotes flexibility in representing content (how instructional materials present the content), in presenting content (how educators and materials deliver content), and in demonstrating content mastery (how students provide evidence of their learning). Flexibility in the presentation and representation of content information can be achieved by providing information in a variety of formats, including text, graphics or pictures, digital and other media formats (audio or video, movies), or performance formats (plays, skits). The development of curricular materials in digital (electronic text) formats allows for the use of computers to provide multiple output formats. For example, using specially
designed media players, electronic text can be converted to multiple output formats, including electronic Braille, digital talking book format, and sign-language avatars, as well as allowing for output in multiple languages and allowing the user to modify features of the presentation, including font color and size and background color. Similarly, there are multiple ways students can provide evidence of their learning, including written reports, exams, portfolios, drawings, performances, oral reports, videotaped reports, and other alternative means (Wehmeyer, 2011).

There are, as well, pedagogical or instructional modifications that can provide greater access to content information. For example, the use of graphic or advance organizers has been shown to improve the comprehension of students with disabilities. Both graphic and advance organizers are, in essence, flexible ways of presenting content information to students (Wehmeyer, 2011). Learning adaptations, which facilitate access to content within a lesson, can serve to promote more time in instruction, engagement, and learning (Lee, Wehmeyer, Soukup, & Palmer, 2010); yet, variations in what is selected for adaptation and how the material is designed can be factors in what learning is potentiated or what learning actually occurs (Kurth & Keegan, 2012).

**Educational and Assistive Technology**

The focus on providing supports to promote a better fit between a student’s capacities and the educational context also places greater emphasis on the use of educational and assistive technologies. Traditionally, the role of technology in special education has been narrowly prescribed as of benefit, mainly, students with more severe impairments who need some “assistive” technology device, such as an augmentative communication device, to accommodate for that student’s deficits. This was consistent with an understanding of disability that focused on fixing the person.

Within social-ecological and person-environment fit models, however, the role of technology, including information, electronic, and assistive technologies, becomes critical to addressing not only the student’s capacities, but the educational context. Computer-assisted instruction, for example, involves the use of computer-based technologies to perform a variety of instructional roles, from initial delivery of content information to drill and practice activities. Research supports the efficacy of CAI with students with and without disabilities, including students with extensive and pervasive support needs (Wehmeyer, Smith, Palmer, Davies, & Stock, 2004).
Further, technology can play a meaningful role in promoting the inclusion of students with extensive and pervasive support needs in general education classrooms. Assistive technologies, such as augmentative or alternative communication devices, provide alternative means for students with disabilities to interact with their peers without disabilities, as well as to participate in classroom learning activities. Many devices can promote peer interactions by providing a topic of conversation between the student with disability and a peer. Technology devices like tablet PCs and Smartphones are socially desirable and can facilitate social interactions as well as provide needed supports.

Multi-Tiered Systems of Supports

Schools are increasingly exploring how they can implement “multi-tiered systems of support” (MTSS) that focus on student success across multiple domains (Chard et al., 2008; Lane, Menzies, Kalberg, & Oakes, 2012). The MTSS framework has specifically emerged from the convergence of tiered interventions to address academic (Response to Intervention) (Fuchs & Fuchs, 2001) and behavioral (Schoolwide Positive Behavior Supports) (Sugai & Horner, 2010) needs, respectively. In an MTSS model, (a) all students receive high quality, evidence-based, and universally designed instruction, taking into consideration their linguistic and cultural backgrounds, disabilities, and other learning needs (Tier 1); (b) some students, who are not successful behaviorally or academically with only Tier 1 supports receive additional targeted instruction in addition to Tier 1 instruction (Tier 2); and (c) a few students who need the most intensive supports to succeed receive not only Tier 1 and 2 interventions, but more intensive, sometimes individualized, instruction and supports (Tier 3). As students move to more intensive levels (tiers) of support, they do not need to be removed from general education classes (Sailor, 2009). Interventions can be embedded within general education instruction and activities, maintaining opportunities for the benefits of inclusion.

MTSS models refer to the implementation of evidence-based, system-wide practices to support a rapid response to academic, behavioral, and social instructional needs, with frequent data-based monitoring for instructional decision-making (Greenwood, Kratochwill, & Clements, 2008) and the use of evidence-based instruction, supports at varying levels of intensity, collaboration among professionals across disciplines (e.g., special and general education, speech, language, or content areas), and strong parent,
professional, and community partnerships (Sailor, 2009). The goal is to enable professionals within organizations to use problem-solving strategies to implement and evaluate the impact of interventions that have a high probability of success and promote access to challenging curriculum in academic and non-academic areas that prepares students for the demands of society. Such models assume that all students receive their education in the general education classroom and curriculum, and that separate programs are unnecessary, as all students — with and without disabilities — will receive the supports needed to be successful.

Self-Determination and Self-Regulated Learning

Promoting the self-determination of students with disabilities is recognized as best practice in special education services and is increasingly being discussed as a valued outcome for all students (Shogren, Wehmeyer, Lane, & Quirk, in press). With the focus on strengths and supports in the social-ecological model, it is important to consider how students can become their own supports, how they can take an active role in planning for their education and their future, and learn skills and develop attitudes that enable them to be a causal agent, or a person that makes things happen in his or her life. Researchers have found that when students with disabilities are taught skills that enhance their self-determination, they make more progress on goals linked to the general education curriculum (Shogren, Palmer, Wehmeyer, Williams-Diehm, & Little, 2012). And, self-determination status predicts positive post-school outcomes, including employment and community participation (Shogren, Wehmeyer, Palmer, Rifenbark, & Little, 2015; Wehmeyer & Palmer, 2003; Wehmeyer & Schwartz, 1997).

In particular, with regard to promoting self-determination and self-regulated learning, there is a rich literature-base showing that students with extensive and pervasive support needs can learn to self-regulate learning by self-monitoring, self-evaluating, and engaging in other means of self-directing learning and, when they do so, such efforts have beneficial outcomes for students in student goal attainment, problem solving, and student engagement (Agran, Blanchard, Hughes, & Wehmeyer, 2002; Agran et al., 2005; Hughes et al., 2002). Further, the application of instruction to teach and implement these strategies has been validated as effective in promoting standards-based learning for students with severe disabilities (Wehmeyer, Hughes, Agran, Garner, & Yeager, 2003).
In this chapter, we have documented that, by and large, students with extensive and pervasive support needs receive their education in substantially segregated settings and that evidence suggests that outcomes associated with those settings limit learning, access, and progress. Further, we have described how changing understandings of disability are creating new opportunities for a “third generation” of inclusive practices that emphasize school wide applications of high quality instruction incorporating universally designed materials and student self-determination and self-regulated learning, and which provide opportunities to reverse the trends of the past with regard to isolation and segregation. We close by articulating what benefits accrue when students with extensive and pervasive support needs are educated in general education settings with their non-disabled peers.

Limited research has directly explored the impact of placement on educational outcomes and, more importantly, mediators and moderators of that relationship. What is available tends to be small-scale and descriptive research, and rarely examines student, classroom, and school/district factors such as those described previously that might influence the relationship between placement and outcomes. The existing research has primarily documented the impact of inclusive education on academic, social/communication, and behavioral skills, suggesting that students with extensive and pervasive support needs: (a) exhibit growth in academic achievement and use of academic skills when participating in inclusive settings (Dessemontet, Bless, & Morin, 2012; Kurth & Mastergeorge, 2010b; Ryndak, Morrison, & Sommerstein, 1999), and (b) show increased communication (Foreman, Arthur-Kelly, Pascoe, & King, 2004), social skills and interactions (Carter & Hughes, 2005; Fisher & Meyer, 2002), self-determination (Hughes, Agran, Cosgriff, & Washington, 2013), and employment skills when in general education settings. Researchers have also suggested that students with extensive and pervasive support needs have greater access to social networks and peer models (McDonnell, Johnson, Polychronis, & Riesen, 2002). Placement in general education settings has also been found to increase teachers’ learning expectations for students (Kurth & Mastergeorge, 2010a).

In terms of comparative work, Kurth and Mastergeorge (2010b) found, in a small sample of adolescents with autism, greater improvements in academic skills in inclusive settings than in self-contained settings.
Dessemontet et al. (2012) found that students with intellectual disability in inclusive settings showed greater progress in literacy skills than students in segregated settings, but no differences between the groups in mathematics or adaptive behavior. Inclusive settings have been associated with the presence of more rigorous individualized education program (IEP) goals (Kurth & Mastergeorge, 2010a) and higher quality IEP objectives (Hunt & Farron-Davis, 1992). Researchers have also found that adolescents with extensive and pervasive support needs are more engaged in curricular activities than their peers in self-contained settings (Kurth & Mastergeorge, 2010a) and have higher levels of social engagement and interactions (Lyons, Cappadocia, & Weiss, 2011). Causton-Theoharis et al. (2011) suggested that factors related to intensity of instruction provided in self-contained special education classrooms could also be provided in general education classrooms for students with extensive and pervasive support needs.

CONCLUSIONS

In the Fall of 2015, the U.S. Department of Education’s Office of Special Education Programs celebrated the 40th anniversary of the passage of IDEA, and in light of this occasion, it is worth beginning this Conclusions section by acknowledging the progress that has been made in the education of students with extensive and pervasive support needs. By any indicator, the passage of Public Law 94-142 was a watershed moment for students who require the most extensive educational supports to learn and progress. P.L. 94-142 was necessary because many children and youth with extensive and pervasive support needs were excluded entirely from the education system in America. In landmark civil rights cases on behalf of children with intellectual disability and their families, the courts interpreted the Due Process Clause of the 14th Amendment as requiring equal protection under the law with regard to the right to education for all. It is not coincidental or trivial that the 14th Amendment was adopted in the wake of the Civil War and the passage of the Civil Rights Act of 1866, and has been used to ensure citizenship rights and equal protection in situations ranging from the rights of former slaves, to women’s voting rights, to the inherent inequality of racially segregated public schools, to IDEA’s assurance of access to a free, appropriate public education for all students. For children and youth with extensive and pervasive support needs and their families, IDEA is first and foremost a civil rights Act.
Further, P.L. 94-142 did more than simply open the school door; from the beginning, the law prioritized educating students with disabilities alongside their non-disabled peers in general education settings. The Least Restrictive Environment language as it was originally written in 1975 in P.L. 94-142, and as it exists today in the 2004 Individuals with Disabilities Education Improvement Act varies slightly, but the intent has not changed; that children with disabilities be educated in regular classes with their non-disabled peers with the supplementary aids and services they need to succeed. Additionally, the term special education has always referred to specially designed instruction. There is, now, an overwhelming body of evidence showing that when provided high-quality, specially designed instruction, students with extensive and pervasive support needs learn and progress. Further, there is more than sufficient evidence that these students can be educated in general education settings with their non-disabled peers and, if that happens, students with and without disabilities benefit. When the 1997 amendments to IDEA required that all students receiving special education services be involved with and progress in the general education curriculum, there emerged efforts to teach students with extensive and pervasive support needs core content, resulting in multiple, research-based instructional practices for ensuring such involvement and progress. Research since 1997 has provided clear and compelling evidence that the place where students with extensive and pervasive support need get instruction in the general education curriculum is the general education classroom.

Acknowledging the historic progress in the education of learners with extensive and pervasive support needs is celebrated today, there is work yet to be done. Despite the clear intent of federal law and compelling evidence from research, far too many students with extensive and pervasive support needs still receive their education in segregated settings that limit their access to high quality instruction and perpetuate low expectations. As the field looks forward to celebrating IDEA at 50 in 2025, there are opportunities that will enable the nation to achieve the full intent of IDEA and reinvigorate the opportunity for students with extensive and pervasive support needs to be included and receive high quality instruction. As discussed in this chapter, the field must adopt and implement emerging strengths-based approaches to disability that emphasize the interaction between a student’s capacities and the demands of the context, and implement practices such as Universal Design for Learning that modify and change the context and enable all learners to succeed. As schools implement school-wide, multi-tiered systems of supports the emphasize high quality
instruction for all students and more intense and effective interventions for those students who need these, students with extensive and pervasive support needs must be included and not simply relegated to the realm of third tier interventions. We must leverage implementation science to take to scale what we already know about the importance of context, of effective inclusive practices, and of efforts to promote student involvement with and progress in the general education curriculum for students with more extensive support needs. And, we need to harness the potential of technology to personalize education and provide access to instructional materials.

REFERENCES


