

Where Should Students with Disabilities Receive Special Education Services?

Is One Place Better Than Another?

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The question of where special education students should be educated is not new. In this article, the author reviews research studies and research reviews that address this question. She argues that research evidence on the relative efficacy of one special education placement over another is scarce, methodologically flawed, and inconclusive. She also states that "Where should students with disabilities be educated?" is the wrong question to ask, that it is antithetical to the kind of individualized planning that should be embodied in decision making for and with students with disabilities, and that it fails to specify where, for what, and for whom. The author calls for new ways of thinking about the problem and of conducting research so that progress can be made on improving results for students with disabilities.

The question of where special education students should be educated is not new. Lloyd Dunn raised the question in 1968, and response to his article spurred the adoption of resource room services in place of special day classes in the 1970s. The question was raised again in 1975 with the passage of the Education for All Handicapped Children Act, later known as the Individuals with Disabilities Education Act (IDEA), and its balanced support for both a continuum of services and placement in the least restrictive environment. The Act required that procedures be established

to assure that, to the maximum extent appropriate, handicapped children . . . are educated with children who are not handicapped and that . . . removal of handicapped children from the regular educational environment occurs only when the nature or severity of that handicap is such that education in regular classes with the use of supplemental aids and services cannot be achieved satisfactorily. (Part B, Section 612(5)(B))

The very first annual report to Congress by the U.S. Department of Health, Education and Welfare (1979) provided a succinct summary of this balanced position. The argument went as follows. In 1819, in *McCulloch v. Maryland*, the courts maintained that the government's purpose should be served with as little imposition on the individual as possible—if less dramatic means for achieving the same basic purpose could be found, they should be taken. Years later, this court decision

was interpreted to mean that children with disabilities should be educated in as mainstream a setting as possible. That interpretation was supported by the wave of civil rights litigation in the late 1960s and early 1970s, most notably *Brown v. Board of Education* (1954) and *Pennsylvania Association for Retarded Children (PARC) v. Commonwealth of Pennsylvania* (1972). *PARC*, and the subsequent *Mills v. Board of Education of the District of Columbia* (1972) case, established the proposition that children with disabilities should be placed in the least drastic, or most normal, setting appropriate, with as little interference and as normal an educational process as possible.

Court cases established the principle of least restrictiveness, but they were only part of the story. State and federal legislation reiterated the principle. Well before the federal legislation became effective, the principle of least restrictiveness embodied in the *PARC* agreement was clearly established in the laws, statutes, or regulations of at least 20 states. In fact, in its first annual report to Congress, the U.S. Department of Health, Education and Welfare (1979) proudly proclaimed that even in 1976–1977, the school year preceding full implementation of the new federal law, "many handicapped children are already receiving their education in a regular classroom setting and appropriate alternative placements are in most cases available to accommodate children with special needs" (p. 39). During the following decades, efforts would be made to move services for students with disabilities out of separate schools and into regular schools, with these students being integrated (mainstreamed) into general education

classes for part of the school day and provided with pull-out itinerant, resource, or part-time special education services for the rest of the day.

The question of where students with disabilities should be educated was hotly debated again in the mid-1980s, as essays on the failure of pull-out special education began to proliferate. The theme was consistent: Fundamental changes in the delivery model for special education were needed to increase the accomplishments of students with disabilities. Even Madeline Will, then Assistant Secretary of Education and head of the Office of Special Education Programs, joined the fray: "Although well intentioned, the so-called 'pull out' approach to the educational difficulties of students with learning problems has failed in many instances to meet the educational needs of these students" (1986, p. 413). Will and other advocates of the regular education initiative (e.g., Gartner & Lipsky, 1989; National Association of State Board of Education, 1992) called for children with learning problems to have completely integrated educational experiences in order to achieve improved educational outcomes.

The 1997 IDEA amendments raised the question of where students with disabilities should be educated with a new urgency. Whereas earlier definitions of *restrictiveness* had focused on access of students with disabilities to nondisabled peers, the new focus defined this in terms of their access to the general education curriculum. With the additional requirement that students with disabilities participate in (and perform respectably on) statewide assessments and accountability procedures, pressures to favor one kind of placement (e.g., inclusion in the general education classroom) over any other (e.g., providing pull-out services in some other place) mounted.

A decade earlier, McKinney and Hocott (1988) had explained that "part of the rationale for totally integrated [as compared to pull-out] programs for mildly handicapped students is based on research that questions the efficacy of special education" (p. 15). How solid is the research evidence indicating that any one particular place, or service-delivery model, can achieve better outcomes for students with disabilities, though? In this article I review research studies and research reviews that address the question of place. I argue, as many others have before me, that research evidence on the relative efficacy of one special education service delivery model over another is scarce, methodologically flawed, and inconclusive. But I will also argue that, in practical terms, the question of where students with disabilities should be educated is misguided. That question is antithetical to the kind of individualized planning that is the hallmark of special education for students with disabilities. I will argue for new ways of thinking about the issue of place and the conduit of research on special education placements before progress can be made on improving results for students with disabilities.

Although I limit myself to the research literature in which students with mild and moderate disabilities are studied, I strongly believe that the arguments I make have merit

across the entire range of students with disabilities promoted and protected by IDEA and that these arguments have important implications for the rhetoric of the next IDEA reauthorization.

Efficacy Studies on Place

For more than 3 decades, special education researchers and scholars have conducted research, and synthesized research, on the relative usefulness of one place or another for serving students with disabilities. Dunn (1968) concluded, on the basis of several studies conducted in the 1960s and a review of research published by Kirk (1964), that there was no empirical support for educating students with high-incidence disabilities in special classes: "Retarded pupils make as much or more progress in the regular grades as they do in special education [and] efficacy studies on special day classes for other mildly handicapped children, including the emotionally handicapped, reveal the same results" (p. 8). Although Dunn called for the abandonment of special day classes for students with high-incidence disabilities, he also argued persuasively for part-time pull-out special education services to meet their special educational needs.

Ten years later, in a narrative review of 17 studies, Sindelar and Deno (1978) concluded that resource rooms were more effective than general education classrooms in improving academic achievement of students with learning disabilities (LD). At about the same time, a meta-analysis of efficacy studies completed by Carlberg and Kavale (1980) reported more complex results. Carlberg and Kavale's calculations of effect sizes showed that students with mental retardation in special class placements performed academically as well as those placed in general education classrooms. However, they also concluded that students with learning or behavior disorders in special classes (both self-contained and resource programs) had a modest academic advantage over those remaining in the general education classrooms. Leinhardt and Pally (1982) also concluded from their research review that resource rooms were better than general education classrooms for students with LD. In addition, 1 year later, Madden and Slavin (1983) reviewed seven studies on the efficacy of part-time resource placements compared to full-time special education classes and full-time placement in the mainstream and concluded that if increased academic achievement is the desired outcome, "the research favors placement in regular classes . . . *supplemented by well designed resource programs*" (p. 530, italics added).

Research support for supplemental resource room services was, however, overlooked in the national frenzy to reshape special education that swept the country in the mid-1980s. With the introduction of newer, more inclusive service-delivery models, the early research comparing special pull-out placements with general education placements seemed dated and irrelevant. In those earlier studies, it was

easy to draw stark contrasts between general education placements, in which no special services were available to students with disabilities, and pull-out services staffed by trained teachers who provided special instruction. In the newer service-delivery models, particularly the full inclusion models for students with mild/moderate disabilities that employed special education teachers in consulting or co-teaching roles, students with disabilities were supposed to be receiving specially designed instruction or supplemental aids and services right in the general education classroom. Research documenting student progress in these new inclusive settings was needed, and it proliferated.

Some studies showed positive trends when students were integrated into general education classrooms (see Affleck, Madge, Adams, & Lowenbraun, 1988; Baker, Wang, & Walberg, 1995; Deno, Maruyama, Espin, & Cohen, 1990; Schulte, Osborne, & McKinney, 1990; Walther-Thomas, 1997), including that full-time placement in a general education classroom resulted in student academic progress that was just as good as that achieved by students in separate settings in elementary schools (see Banerji & Dailey, 1995; Bear & Proctor, 1990). Others, however, reported disappointing or unsatisfactory academic and social achievement results from inclusion models (see Fox & Ysseldyke, 1997; Saint-Laurent et al., 1998; Sale & Carey, 1995; Vaughn, Elbaum, & Boardman, 2001; Zigmond & Baker, 1990; Zigmond et al., 1995). It should come as no surprise, then, that in a review of research on these newer special education service-delivery models, Hocutt (1996) reported equivocal findings. She concluded that "various program models, implemented in both general and special education, can have moderately positive academic and social impacts for student with disabilities" (p. 77). However, no intervention in the research literature eliminated the impact of having a disability. That is, regardless of the place of the intervention, students with disabilities did not achieve even at the level of low-achieving nondisabled peers, and no model was effective for *all* students with disabilities.

Manset and Semmel (1997) compared eight inclusion models for elementary students with high-incidence disabilities, primarily LD, reported in the research literature between 1984 and 1994. They reiterated Hocutt's conclusions: Inclusive programs can be effective for some, although not all, students with high-incidence disabilities. Waldron and McLeskey (1998) agreed with this conclusion. In their research, students with severe LD made comparable progress in reading and math in pull-out and inclusion settings, although students with mild LD were more likely to make gains commensurate with nondisabled peers when educated in inclusive environments than when receiving special education services in a resource room.

Holloway (2001) reviewed five studies conducted between 1986 and 1996 that compared traditional pull-out services to fully inclusive service-delivery models and models that combined in-class services with pull-out instruction. His conclusions did not offer strong support for the practice of full

inclusion. Reading progress in the combined model was significantly better than in either the inclusion-only model or the resource room-only model.

In very recent research, Rea, McLaughlin, and Walther-Thomas (2002) used qualitative and quantitative methods to describe two schools and their special education models, one fully inclusive and one with more traditional supplemental pull-out services. Results showed that compared to students in the more traditional schools with pull-out programs, students served in inclusive schools earned higher grades, achieved higher or comparable scores on standardized tests, committed no more behavioral infractions, and attended more school days.

In a specific review of co-teaching as the inclusive service-delivery model, Zigmond and Magiera (2002) found only four studies that focused on academic achievement gains. In the three elementary studies, co-teaching was just as effective in producing academic gains as was resource room instruction or consultation with the general education teacher; in the high school study, students' quiz and exam grades actually worsened following the co-teaching experiment. Murawski and Swanson (2002), in their meta-analysis of the co-teaching research literature, found six studies from which effect sizes could be calculated; dependent measures were grades, achievement scores, and social and attitudinal outcomes. Murawski and Swanson reported effect sizes for individual studies ranging from low to high, with an average total effect size in the moderate range. Both literature reviews on co-teaching concluded that despite the current and growing popularity of co-teaching as a service-delivery model, further research is needed to determine whether it is an effective service-delivery option for students with disabilities, let alone a preferred one.

Conclusions Derived From the Empirical Research Base

There is no simple and straightforward answer to the question of where students with disabilities should receive their special education instruction. The efficacy research reviewed here, which spans more than 3 decades, provides no compelling research evidence that place is the critical factor in the academic or social progress of students with mild/moderate disabilities. There are probably many reasons for reaching this conclusion, but I suggest only two. The first has to do with the body of research evidence itself. The second has to do with the appropriateness of the question.

Explanation 1: Research Base Is Insufficient

Despite the fact that the efficacy research literature on the places where special education services are provided spans more than 3 decades and that dozens of studies have been reported in refereed special education journals, Murawski and Swanson (2002) are right to ask where the data are. Studies

worthy of consideration in a meta-analysis or narrative literature review, with appropriate controls and appropriate dependent measures, are few and far between. Of course, research on the efficacy of special education placements is very hard to conduct at all, let alone to conduct well. For example, definitions of service-delivery models or settings vary from researcher to researcher, and descriptions of the treatments being implemented in those models or settings are woefully inadequate. Random assignment of students to treatments is seldom an option, and appropriately matched (sufficiently alike) samples of experimental and control students and teachers are rare. As a result, *where* special education occurs is not a phenomenon that lends itself to precise investigation, and funding for research studies and publication of results in refereed journals are difficult to achieve.

Methodologically Flawed Research. Research designs used to explore the effectiveness of different service-delivery models often employ pre-post treatment group designs. The limitations of these research designs for studying the efficacy of special education have been reported in numerous previous research reviews, most notably in Kirk (1964) and Semmel, Gottlieb, and Robinson (1979). Some studies use control groups, often samples of students experiencing “traditional” programs (sometimes referred to as “business as usual” programs) in nonexperimental schools. In some studies, the researchers manage to achieve random assignment of students to treatments, but most use intact groups of students assigned to the teacher or the school building who volunteered to participate in the experimental treatment program. Often the experimental treatment is well described, although degree of implementation is not. Descriptions of the control treatment and its degree of implementation (if indeed a control group is used) are rarely provided. Most often, replication is hindered by inadequate descriptions of the treatments and insufficient monitoring of treatment implementation. Thus, even if reliable achievement changes are demonstrated in one research study, difficulty in identifying critical treatment variables makes replicability impossible in virtually all cases. Achievement gains, or lack thereof, cannot be related to replicable interventions, and the fundamental question of whether Place A is better than Place B cannot actually be answered.

Inconclusive Research. The accumulated evidence to date has produced only one unequivocal finding: Languishing in a general education class where nothing changes and no one pays you any attention is not as useful to students with mild/moderate learning and behavior disorders as is getting some help, although it does not seem to matter for students with mild mental retardation. All other evidence on whether students with disabilities learn more, academically or socially, and are happier in one school setting or another is at best inconclusive. Resource programs are more effective for some students with disabilities than are self-contained special education classes or self-contained general education classes, but

they are less effective for other students with similar disabilities. Fully inclusive programs are superior for some students with disabilities on some measures of academic or social skills development and inferior for other students or on other measures. The empirical research not only does not identify one best place but also often finds equivalent progress being made by students with disabilities across settings; that is, the research reports nonsignificant differences in outcomes. Interpreting nonsignificant findings can be tricky. Do we conclude that the proverbial cup is half full or half empty? Do we acknowledge that it does not matter where students receive their special education services and allow parents or school personnel wide berth in making choices? Or do we proclaim that one setting is preferred over another for philosophical or moral reasons with empirical evidence that it “doesn’t hurt”?

Explanation 2: Efficacy Studies Have Been Asking the Wrong Question

Failure to Specify “Best for Whom?” Special education has evolved as a means of providing specialized interventions to students with disabilities based on individual student progress on individualized objectives. The bedrock of special education is instruction focused on *individual* needs. The very concept of “one best place” contradicts this commitment to individualization. Furthermore, results of research on how groups of students respond to treatment settings does not help the researcher or practitioner make an individualized decision for an individual student’s plan. A better question to ask, if we dare, is “best for whom?” or best for which individual students with which individual profiles of characteristics and needs? Answering this question requires that we abandon the rhetoric in which we call for *all* students to do this, or *all* students to learn that, or *all* students be educated in a certain place.

Special educators understand about individual differences. Special educators understand that no matter how hard they try or how well they are taught, there are some students who will never be able to learn on the same schedule as most others, who will take so long to learn some things that they will have to forego learning other things, or who will need to be taught curricular content that is not ordinarily taught. Special educators understood this when they fought hard for the legal requirement of the Individualized Educational Program for children with disabilities, to permit formulation of unique programs of instruction to meet unique individual needs. By continuing to ask, “What is the best place?” we are ignoring what we know.

Restating the question as “best for whom?” would also require new research designs and data analysis. A first step in that direction might be to reanalyze group design data at the individual student level. For example, Zigmond et al. (1995) collected achievement test data for 145 students with LD in three full inclusion programs and for many of these students’ nondisabled classmates. Rather than reporting average growth

of the students with LD, the researchers reported the number and percentage of students with LD who made reliably significant gains (i.e., gains exceeded the standard error of measurement of the reading test) during the experimental year. They also reported on the number and percentage of students with LD whose reading gains matched or exceeded the average gain of their grade-level peers. Finally, they reported on the number and percentage of students with LD whose achievement status (i.e., their relative standing in the grade-level peer group) had improved during the school year. These analytic techniques allowed for exploration of setting effects at an individual level. Waldron and McLeskey (1998) followed this same tactic. Unfortunately, neither group of researchers took the final step of describing individual participants in enough detail to permit generalization of the findings or extrapolation of the findings to the individual case. Nevertheless, this approach seems more promising than the traditional approaches that have been used to date in terms of answering the question "best for whom?"

Failure to Specify "Best for What?" Different settings offer different opportunities for teaching and learning. The general education classroom provides students with disabilities with access to students who do not have disabilities; access to the curricula and textbooks to which most other students are exposed; access to instruction from a general education teacher whose training and expertise are quite different from those of a special education teacher; access to subject matter content taught by a subject matter specialist; and access to all of the stresses and strains associated with the preparation for, taking of, and passing or failing of the statewide assessments. If the goal is to have students learn content subject information or how to interact with nondisabled peers, the general education setting is the best place.

Pull-out settings allow for smaller teacher–student ratios and flexibility in the selection of texts, choice of curricular objectives, pacing of instruction, scheduling of examinations, and assignment of grades. Special education pull-out settings allow students to learn different content in different ways and on a different schedule. A pull-out special education setting may be most appropriate if students need (a) intensive instruction in basic academic skills well beyond the grade level at which nondisabled peers are learning how to read or do basic mathematics, (b) explicit instruction in controlling behavior or interacting with peers and adults, or (c) to learn anything that is not customarily taught to everyone else.

If educators value education that is different and special and want to preserve that feature of special education, it is legitimate to ask whether the general education classroom can be transformed to support this desire. Or, as Fuchs and Fuchs (1995) asked, "Can general education become special education?" (p. 528) Their experience (and mine) strongly suggests that the answer to this question is "no." Attempts to transport teaching methods that were developed and validated in special education to general education settings have not been suc-

cessful. Instructional practices that focus on individual decision making for individual students and improve outcomes of students with severe learning problems are not easily transposed into practices that can survive in a general education classroom. General educators will make instructional adaptations in response to students' persistent failure to learn, but the accommodations are typically oriented to the group, not to the individual, and are relatively minor in substance, with little chance for helping students with chronically poor learning histories (Zigmond & Baker, 1995).

Over and over again, researchers and staff development personnel have come to recognize that general education teachers have a different set of assumptions about the form and function of education than do special educators. General educators cannot imagine focusing intensively on individual students to the extent that different instructional activities for different students are being implemented at the same time. This is simply impractical in a classroom of 25 to 35 students. Moreover, special education's most basic article of faith, that instruction must be individualized to be truly effective, is rarely contemplated, let alone observed, in most general education classrooms. Mainstream teachers must consider the good of the group and the extent to which the learning activities they present maintain classroom flow, orderliness, and cooperation. In addition, they generally formulate teaching plans that result in a productive learning environment for 90% or more of their students. General education settings are best for learning what most students need to learn.

For many of the remaining 10% of students, however, a different orientation will probably be needed. These students need to learn something different because they are clearly not learning what everyone else is learning. Interventions that might be effective for this group of students require a considerable investment of time and effort, as well as extensive support. Special education in a pull-out setting, with its emphasis on empirically validated practices and its use of data-based decision making to tailor instruction to the individual students' needs, might be better for teaching these students.

Conclusion

As early as 1979, federal monitoring of state programs was put into place to guard against not only too much segregation of students with disabilities but also "inappropriate mainstreaming" (U.S. Department of Health, Education and Welfare, 1979, p. 39). Although most would agree that students with mild and moderate disabilities should spend a large proportion of the school day with peers without disabilities, research does not support the superiority of any one service-delivery model over another. Furthermore, effectiveness depends not only on the characteristics and needs of a particular student but also on the quality of the program's implementation. A poorly run model with limited resources will seldom be superior to a model in which there is a heavy investment of time,

energy, and money. Good programs can be developed in any setting, as can bad ones. The setting itself is less important than what is going on in the setting.

Reflecting on the 35 years of efficacy research on the settings in which special education is delivered that I have reviewed in this article, what do we know? We know that what goes on in a place, not the location itself, is what makes a difference. We know that you learn what you spend time on and that most students with disabilities will not learn to read or to write or to calculate if they are not explicitly taught these skills. We know that some instructional practices are easier to implement and more likely to occur in some settings than in others. We know that we need more research that asks better and more focused questions about who learns what best where. In addition, we know that we need to explore new research designs and new data analysis techniques that will help us bridge the gap between efficacy findings and decision making on placements for individual students.

In response to the query of what is special about special education, I can say with some certainty that place is not what makes special education "special" or effective. Effective teaching strategies and an individualized approach are the more critical ingredients in special education, and neither of these is associated solely with one particular environment. Educators must also remember that research has shown that typical general education environments are not supportive places in which to implement what we know to be effective teaching strategies for students with disabilities (e.g., Zigmond, 1996). Considering the research evidence to date, it is clear that placement decisions must continue to be made by determining whether a particular placement option will support the effective instructional practices that are required for a particular child to achieve his or her individual objectives and goals.

The search for the best place in which to receive special education services has tended to be fueled by passion and principle, rather than by reason and rationality. Until educators are ready to say that receiving special education services in a particular setting is good for some students with disabilities but not for others, that different educational environments are more conducive to different forms of teaching and learning, that different students need to learn different things in different ways, and that traditional group research designs may not capture these individual differences in useful ways, we may never get beyond the equivocal findings reported here. We may even fail to realize that, in terms of the best place to receive special education and related services, we have probably been asking the wrong questions.

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