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Examination of the Literature to See Whether Students with Disabilities Fare Better when Instructed in Full Inclusion than in Traditional Pull-Out Settings

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EXAMINATION OF THE LITERATURE TO SEE WHETHER STUDENTS WITH DISABILITIES FARE BETTER WHEN INSTRUCTED IN FULL INCLUSION THAN IN TRADITIONAL PULL-OUT SETTINGS

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Chapter 1

INTRODUCTION

The question of place as a focus for reform in special education has roots far deeper than the 1960s. It goes back to the founding of specialized social institutions in this country during the early 19th century. Since then, proponents of institutional reform have often argued for either the development of new institutions or the abandonment of old structures in hopes of creating something better. In both cases, reformers have assumed something is special about setting, that some essential quality inheres in the location of specialized services.

Beginning in the early 19th century, social reformers advocated, and created, new institutions that specialized in what were thought of then as discrete problems: criminality, juvenile delinquency, physical illness, mental illness, deafness, blindness, and mental retardation (then termed "idiocy"). Advocates and administrators of the new institutions thought that location and physical environment were an essential part of the purpose of these institutions (Dorn, Fuchs, & Fuchs, 1996).

As time went on, the critics did not see these institutions imbued with care and qualities of peaceful isolation, but rather institutions crowded and corrupt. These critics saw the family as pure and therapeutic and the answer to working with this population (Dorn et al., 1996).

The history of special education is not one that started out with high ideals. Dunn (1968) points out that Hollingworth said that with the advent of compulsory attendance laws, the schools and special needs students were forced into a reluctant mutual recognition of each other. This resulted in the establishment of self contained special schools and classes as a method of transferring these "misfits" out of the general education grades.

Times have changed and approaches to the placement for special education students has changed. Today, one of the most emotionally laden topics in education is inclusion. The term evokes strong feelings in teachers, parents of students with and without disabilities. There are position statements on inclusion by nearly every professional education organization and these statements represent a range of responses, including a) unqualified enthusiasm for full inclusion (Association for Persons with Severe Handicaps, 1991); b) enthusiasm for the philosophy of inclusion but concern over maintaining a continuum of services (Council for Exceptional Children, 1993); c) concern that inclusion practices do not provide appropriate services for students with learning disabilities (Council for Learning Disabilities, 1993); and

d) concerns about the responsibilities of general education teachers and the effects of inclusion on all students (American Federation of Teachers, 1993) (Vaughn & Shay-Schumm, 1995).

Purpose of Paper

The purpose of this paper is to review the literature as to whether students with learning disabilities and mild moderate disabilities fare better when instructed in full inclusion settings than in traditional pull-out settings? Some authors argue that there are many instances in which special education, particularly resource-rooms, promote greater academic achievement than do general education classrooms (Fuchs & Fuchs, 1995). Some researchers suggest that full inclusion produces the same academic results as the resource room (Hallahan, Keller, McKinney, Lloyd, & Bryan, 1988; Zigmond, Jenkins, Fuchs, Deno, Fuchs, Baker, Jenkins, & Couthino, 1995). Another area of concern is the social skills that special needs students learn and demonstrate in full inclusion classrooms. The skills may be taught in a resource room, but then, there is the concern of generalizing these skills to other situations. The full inclusion classroom is another way to learn social skills or interpersonal competencies. Which is easier for the special needs student to generalize? Answers to these questions will be sought.

Chapter 2

REVIEW OF THE LITERATURE

Dunn (1968) questioned whether special education for students with mild retardation was justifiable, then concluded these students were better educated in general education classrooms. This became known as mainstreaming or inclusion. At that time there was little of research conducted to support the movement of mainstreaming. The basis of Dunn's suggestion was more philosophical than empirical (Carlberg & Kavale, 1980).

Since that time, efficacy studies have provided further support for the education of students with mild learning disabilities and mild moderate disabilities in typical classroom settings. There seems to be some movement toward the practice of providing most services for students with mild disabilities in the typical classroom setting (Madden & Slavin, 1983).

> There is little evidence that self-contained special education is superior to placement in regular classes in terms of increasing the academic performance of Mildly Academically Handicapped students, and the best evidence is that in general, it is regular class placement with appropriate supports that is better for the achievement of these students (Madden et al., 1983, p. 508).

Much of the concern about inclusion for students with learning disabilities stems from the educational conditions that existed prior to

> the Education for All Handicapped Children Act of 1975 (P.L. 94-142). P.L.94-142 recognized and supported this need for the education of students with disabilities in regular classroom settings, by creating a "presumption in favor of educating children with handicaps in regular education environments." (Danielson & Bellamy, 1989, p. 448)

P.L.94-142 stipulates that each public agency shall ensure:

> 1–That to the maximum extent appropriate, handicapped children, including those in public or private institutions or other care facilities, are educated with children who are not handicapped, and 2–that special classes, separate schooling or other removal of handicapped children from the regular educational environment occurs only when the nature or severity of the handicap is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily. (Section 612 (5) B of P.L.94-142)

A report of the National Academy of Sciences (Heller, Holtzmann, & Mewich, 1982) prompted early research on inclusion. The panel found classification and placement of children in special education ineffective and discriminatory. It recommended that children be given noninclusive or extra-class placement for special services only if a) they can be accurately classified and only if b) noninclusion demonstrates superior results.

Meta-analysis is an explicit and rigorous technique that uses statistical and experimental methods which can supplement or replace traditional narrative-based methods of research reviews. The structured nature of meta-analytic techniques helps reduce the potential for reviewer bias and provides a statical mechanism for handling larger amounts of data. The application of meta-analytic research methods to social science issues has produced *effect estimates* that in some well-developed education areas are as consistent as

those found in areas of physical science (Hedges, 1987). Three meta-analyses in the educational literature address the issue of the most effective setting for the education of students with special needs. These three meta-analyses are Baker (1994), Carlberg and Kavale (1980), and Wang and Baker (1985-86). These meta analyses generated a common measure called an effect size.

> The *effect size* is a numerical way of expressing the strength or magnitude of a reported relationship. Effect size is expressed as a decimal number and, while numbers greater than 1.00 are possible, they do not occur very often. Thus, an effect size near .00 means that, on average, experimental and control groups performed the same; a positive effect size means that on average, the experimental group performed better; and a negative effect size means that, on average, the control group did better. For positive effect sizes, the larger the number the more effective the experimental treatment. (Gay & Airasian, 2000, p. 302)

Effects of Inclusive Placement

Authors	Carlberg and Kavale	Wang and Baker	Baker
Year Published	(1980)	(1985-1986)	(1994)
Time Period	Pre-1980	1975-1984	1983-1992
Number of Studies	50	11	13
Academic Effect Size	0.15	0.44	0.08
Social Effect Size	0.11	0.11	0.28

The three studies compared the effects of inclusive versus noninclusive educational practices for special-needs students. These effect sizes demonstrate a small-to-moderate beneficial effect of inclusive education on

the academic and social outcomes of children with special-needs. The average effect sizes range from 0.08 to 0.44 and were all positive, which means that students with special-needs educated in general education classes do better academically and socially than comparable students in noninclusive settings. The average of the six inclusion effects 0.195 is near the average effect for effective instructional practices. Estimated effects vary across individual studies, but rarely show negative effects for inclusion. The effects of inclusion are positive and worthwhile, but they are not huge.

In the early 1990s, social and historical influences contributed to the creation of the separate system for students with special needs. Considerable evidence from the last 15 years suggests that segregation of students with special needs in separate classrooms is actually detrimental to their academic performance and social adjustment, and that students with special needs generally perform better on average in general education classrooms (Baker et al., 1995).

Inclusive classrooms are more like the real world that students with disabilities will live in when they finish school (O'Neil, 1994/1995). By remaining in the general education classroom, students with disabilities have more time to make and sustain friendships with their peers with or without disabilities, and enjoy increased instructional time, as they are not traveling from the general education classroom to the resource room. Students do not

miss out on key content previously covered during their absence, and the assistance provided by the special education teacher in the inclusive classroom is more directly related to the general education curriculum. Inclusion requires general educators to become more responsible for students with special needs, rather than being able to "dump" them in special education classrooms (Klinger, Vaughn, Schumm, Cohen, & Forgan, 1998).

Teachers' Attitude, Perceptions, and Adaptations

Teachers' attitudes and adaptations for the students are very important. Teachers considered most adaptations to be desirable and deemed all adaptations to be more desirable than feasible. Adaptations considered most feasible related to the social or motivational well-being of the high school student and required the teacher to make little adjustments of curriculum or instruction. Teachers rated three adaptations as the most feasible: a) providing reinforcement and encouragement; b) establishing a personal relationship with the mainstreamed student; and c) involving students with learning disabilities in whole-class activities. Adaptations teachers considered least feasible included adapting regular materials, using alternative materials, and providing individualized instruction, all of which would be costly in terms of teacher effort and would require substantial changes in curriculum or materials (McIntosh, Vaughn, Schumm, Haager, & Lee, 1993).

Schumm and Vaughn (1992) conducted a survey to investigate general education teachers' perceptions and planning practices for teaching mainstreamed students with learning disabilities and mild moderate disabilities in the high school general education classroom. Ninety-eight percent rated their knowledge and skills for planning for general education students as either excellent or good, only 39% rated their planning for mainstreamed students as excellent or good. Teachers reported an overall positive feeling toward having mainstreamed students in their classes. Teachers seemed to want to help mainstreamed students with disabilities, but do not feel prepared to do so. Teachers reported that they relied on other teachers as facilitators in working with mainstreamed students.

Baker and Zigmond (1990) conducted a detailed study to determine the extent to which accommodations were made for individual differences. The results from interviews and observations indicated that both math and reading instruction were large-group teacher-directed, and text-based instructional formats. Very little differentiation in instruction, grouping, or assignments were reported for students of different abilities, suggesting that students with individual differences and needs would not fare well in this school if a complete mainstreaming format were to be adopted.

Interaction Between Teacher-Student

Slate and Saudargas (1986) examined the relationship of high school students with learning disabilities and mild moderate disabled students to their teachers. The nature of interaction with the teacher is not likely to be the same for students with disabilities as it is for other students in the general education classroom. Teachers' initiations and responses to the students with disabilities were more negative and corrective than with the students without disabilities. General education classroom teachers initiated conversations more frequently with mainstreamed students with learning disabilities than with average-achieving students, but that these initiations were primarily directed to inattentiveness and rule infractions. Students with learning disabilities received more individual contacts with the teacher, but these contacts related to being engaged in an activity other than school work. The academic engaged time of the mainstreamed students with learning disabilities was not significantly different from that of average-achieving peers (Slate & Saudargas, 1986).

Research on interactions between teacher and student can be classified into three types: a) teacher-initiated behavior, b) student-initiated behavior, and c) student-teacher participating and interaction behavior. Teachers monitored general education students' performance and made more negative comments to general education students than to students with

learning disabilities with the teacher-initiated behavior type of interaction. With the student-initiated behavior interaction type, students with learning disabilities were rated as displaying significantly lower ratings for all student-initiated behavior items, including asking for assistance, volunteering to answer questions, and engaging in class discussions. General education students interfered with the activities of other students, made sarcastic comments, and engaged in personal ridicule of other students more frequently than did students with learning disabilities. Using the student-teacher participating and interaction behavior type, general education students interacted with the teacher, other students, and classroom activities at higher rates than did the students with learning disabilities (McIntosh et al., 1993).

Comparing Reading Scores

Shinn, Powell-Smith, Good III, and Baker (1997) conducted a research project that used Curriculum-Based Measurement (CBM) reading scores to test students with learning disabilities who were reintegrated into a general education classroom and compared to other classmates who were of the same low reading level as the students with learning disabilities. The reading performance of reintegrated students and their low-reading peers were compared. Prior to reintegration, special education students read about 12 words per minute slower, on average, than did their low-reading peers. Although most of the special education students had reading skills within the

range of their low-reading peers, most were at the lower end of that range. Evaluations were conducted during week 4, 8, and the final week (8-10 week). At week 4 evaluation there was no significant difference. The reintegrated special education students continued to read significantly fewer words correct per minute than their low-reading peers. The reintegrated special education students appeared to be neither catching up nor falling further behind. Neither group of students increased significantly on the CBM reading probes. At the 8 week evaluation there was no significant gain. Each group of students maintained their position relative to their peers, however, both groups showed significant improvement in reading skills from pre-reintegration and the 8 week evaluation. The reintegrated special education students appeared to maintain their relative standing on the reading measures and increased in their reading skills. After the final evaluation the reintegrated students, as a group, appeared to continue to hold their own in terms of reading achievement. They tended, on average, to be performing more like the general education peers. There was no reliable evidence from this study that the reintegrated students were falling further behind their peers. The placement of these students was then asked of the parents, general education teachers and special education teachers. A censuses among all the three groups was that the special education students should be placed in one of two places: a general education low reading group or a general education low reading group with special

education. This study was predicated on an assumption that reintegration decision should be data based and should be tied to information to suggest a special education student has reading skills within the range of general education students who will receive the same instruction. The identification process should begin by having the special education teachers identify potential candidates for reintegration.

Madden and Slavin (1983) stated that there was little evidence that self-contained special education was superior to placement in general education classes in terms of increasing the academic performance of students with mild academic disabilities, and the best evidence was that, in general, it was general education class placement with appropriate supports that is better for the achievement of these students. There is always some controversy regarding whether separate class placement is ever beneficial for students with mild disabilities, but most tend to agree that students with mild disabilities should spend most, if not all of the school day with peers without disabilities (Baker, Wang, & Walberg, 1995). This perspective is further supported by federal legislation which provides a "presumption in favor of educating children with disabilities in regular education environments" (Danielson & Bellamy, 1989, p. 448). There is also a provision in the Individuals with Disabilities Education Act (IDEA) which states that students with disabilities should be removed from the general education environment only when the nature and

severity of the disability is such that education in general education classes with the use of supplemental aids and services cannot be achieved satisfactory (20 U.S.C. Section 1412 [5] [B]).

Research is appearing in professional literature which indicates that students with learning disabilities can be supported in typical classroom settings for the entire school day, with academic achievement levels at least as high, if not higher than those achieved in separate class settings. To offer an alternative to the normal education practice, the University of Washington and the Issaquah, Washington, School District developed a service delivery model for educating children with mild disabilities in integrated classrooms administered jointly by general education and special education personnel. This effort was the result of a 16 year collaboration between the district and university. The university and the school district moved toward developing systems that increasingly integrated students with disabilities with their peers without disabilities. The Integrated Classroom Model was the system developed. It was unique in that it shaped regular education to meet the needs of special education students and expanded special education to meet the needs of general education students. The program began when one teacher implemented the idea in a first-grade classroom. During the next three years it expanded to include 13 classrooms in three buildings, at grade levels 1 through 6. The results showed there was no significant difference between

the groups in three years in reading or language. There was one significant difference in math during Year 1, in which the adjusted mean for the integrated students was significantly higher than that of for the resource room.(Affleck, Madge, Adams, & Lowenbraun, 1988).

One of the major concerns about inclusion is that while it may work for some students with learning disabilities some of the time, it will not work for all of those students all of the time. Some authors have done research suggesting that students who do not make significant progress should be educated in separate, special education classrooms (Hallahan, Keller, McKinney, Lloyd, & Bryan, 1988; Zigmond, Jenkins, Fuchs, Deno, Fuchs, Baker, Jenkins, & Couthino, 1995). McLeskey and Waldron (1995) point out that these investigators did not use a comparison group as a standard of progress for the students with learning disabilities who were educated in inclusive programs, nor did they offer a rationale for why these students, ostensibly with serious learning problems, should perform better in a separate class setting.

Waldron and McLeskey (1998) conducted a research project to address the effects of an Inclusive School Program on the academic achievement of students with mild and severe learning disabilities. There were two groups of students with learning disabilities, academic progress of both groups was evaluated using a curriculum-based measure–Basic Academic Skill Samples

(BASS). The results of their research indicated that students with learning disabilities who were educated in inclusive settings made significantly more progress on a curriculum-based measure of reading than did students who were educated in noninclusive, resource settings. In contrast, students who were educated in inclusive and noninclusive settings made comparable progress in mathematics. They found that 48% of the students with learning disabilities who were educated in inclusive settings moved up in relative standing when compared to grade-level peers in reading.

McLeskey and Waldron (1995) suggested that the results of their investigations demonstrate that when students with learning disabilities are educated in well-developed inclusive settings, approximately one-half of these students make progress that is comparable to or greater than the progress made by grade-level peers. This level of progress by a large proportion of students labeled with learning disabilities is surprising, especially in light of the fact that these students were initially given the label of learning disability because they failed to make academic progress that was comparable to grade-level peers.

Zigmond et al. (1995) believe that mainstreaming is not the way to educate students with learning disabilities. They focus their attention on the fact that approximately 50% of the students with learning disability do not make progress that is comparable to grade-level peers. The progress these

students with learning disabilities made was less than ideal, however there are others (Affleck et al., 1988; Bear & Proctor, 1990) who contend that the criterion for judging mainstream students should not be whether students with disabilities are making progress that is comparable to grade-level peers which is the same as saying that the disability must be "cured," but rather a more appropriate criterion should be that students with disabilities make at least as much progress in an inclusive setting as they would make in a noninclusive setting. The reasoning behind this criterion is that if students with disabilities make comparable progress in two settings, then they should be educated in the less restrictive setting, as per the Least Restrictive Environment provision of IDEA (McLeskey & Waldron, 1995).

As has been noted, P.L.94-142 has provided an opportunity for individuals with disabilities to have full access to educational programs within the public schools, along with support services to meet their specific education needs. Essential to the law and to the delivery of services is the notion of least-restrictive environment. Under this aspect of the law, students with disabilities are educated in an environment that is most like the norm yet still meets their special educational needs (Vaughn & Schumm, 1995). For many school districts, this has meant fairly restrictive service delivery models, often limited to self-contained classrooms or, more frequently, special education resource rooms. Evidence to justify the existence of the special education

resource room has been scant, as has evidence that the special education resource room is ineffective (Carlberg & Kavale, 1980; Polloway, 1984).

There is very little known about the efficacy of the special education resource room model. What is known is that in many schools it has been used as the sole vehicle for delivering services to individuals with learning disabilities. The special education resource model, as it is implemented in most schools, is programmed for failure. What was designed to provide appropriate, individualized education for students with special needs has, in many cases, turned into a watered down regular education program with caseloads that defy effective instruction (Vaughn & Schumm, 1995).

Responsible Inclusion

Inclusion may meet the needs of these students but there are educators who are interested in developing more inclusive service models. The model that is suggested is "responsible inclusion." This is defined as the development of a school-based education model that is student centered and that bases educational placement and service provision on each student's needs. The goal of responsible inclusion is that all students be placed in the general education classroom unless their academic and/or social needs cannot be adequately met there. This model is accountable first and foremost to the student. Responsible inclusion provides for a continuum of services so the issue becomes not the *place* in which the child is educated (e.g., the

general education classroom), but effective procedures and outcomes that reflect appropriate instructional practices for each child with disabilities (Vaughn & Schumm, 1995).

The first consideration in responsible inclusion is the extent to which the student with disabilities makes academic or social progress in the general education classroom. Once the student is placed in the general education classroom ongoing assessment, monitoring, and placement considerations are critical to success. When students are unsuccessful in inclusive setting, alternative interventions are provided. Decision making about student placement is outcome centered.

Responsible inclusion can be contrasted with one in which *place* is considered first. Students' academic and social progress is secondary to the location in which their education occurs. If the student is in the general education classroom, there is little else to consider, because place is the foremost consideration (Kauffman, 1993).

General education teachers who work in inclusive settings need to demonstrate beliefs and skills that will allow them to address the diverse needs of their students with learning disabilities. General education teachers have the right to be supported by special education teachers and help with adaptation of lesson materials is important.

Student Preference

A question that needs to be examined or questioned is which type of special education services does the special needs student prefer? Is it inclusion or the resource room? Students with and without disabilities generally viewed the resource classroom in a positive light. The majority of students in general and special education preferred pull-out programs over in-class programs. The students' preferences may have been significantly influenced by their current placement. When special and remedial education students were given a choice between receiving additional help from their classroom teacher or help from a specialist, whether through pull-out or in-class, they overwhelmingly expressed preference for additional help from their classroom teacher. When general education students were given a choice between receiving additional help from their classroom teacher or from a specialist, they overwhelmingly selected the classroom teacher, yet the students preferred the pull-out model. The principal reasons behind selection of pull-out model were the perception that the specialist can give more or better help in a pull-out model, and that pull-out is less embarrassing than having a specialist come into the classroom. Most students would be inclined toward a total mainstreaming model such as the integrated classroom model because they view additional help from the classroom teacher as less stigmatizing than help form a specialist. Students also do not wish to draw

attention to their skill deficits. For the older students, drawing attention to themselves is a very big concern and so they prefer the pull-out as less embarrassing (Jenkins & Heinen, 1989).

After nine years of inclusive education since the Jenkins and Heinen study, Klinger, Vaughn, Schumm, Cohen, and Forgan (1998) conducted a study and found that overall the students with learning disabilities were closer to an even split on this issue of which education model they preferred (pull-out or inclusion) than the students without disabilities. Except in a few cases students expressed opinions, but did not seem to care all that much whether they were part of inclusion or pull-out programs. Although many students with learning disabilities stated that they preferred previous years when they had been in classrooms that were part of a resource model, they seemed quite satisfied with their current placements and their teachers, and appreciated the extra help available to them with an extra teacher in the room. Students believed that learning was stressed in their inclusion classrooms, and that plenty of help was available from teachers and peers to support them. Consistently, students with learning disabilities said that they completed more work and that the work was harder when they stayed in the general education classroom. Students with learning disabilities frequently described the general education classroom as assigning harder work. Students distinguished between the social benefits and the academic benefits of inclusion.

Full inclusionists describe many possible benefits of inclusive classrooms for students with learning disabilities. Self-esteem and feelings of self-worth are believed to increase because students with disabilities are less likely to be identified as "slow" by their peers or to feel stigmatized. Students with learning disabilities served within an inclusion program do not feel or behave differently from other students served within the same context, and are often indistinguishable from students without disabilities. Students with disabilities frequently showed spurts of academic and social-behavioral growth within the inclusion environment. Several observers commented on the improved self-esteem and motivation of the students with learning disabilities. The environment developed into a sharing, caring community. Students appeared to enjoy the opportunity to learn and work together (Banerji & Dailey, 1995).

Social Skills

Some of the reasons for integrating students with disabilities into general education schools rather than putting them is special education schools are a) to allow students with disabilities to benefit from the general education programs with appropriate teaching strategies and support, b) to give students with disabilities the opportunity to interact with age-appropriate peers without disabilities, c) to let students with disabilities take part in all

aspects of school life, and d) to better prepare students with disabilities for life within the social community (Idol, 1997).

Social skills of children with mild moderate disabilities have been an ongoing concern of educators as they prepare these students to meet social challenges. Social skills reflect the individual's ability to exhibit appropriate behavior by using skills such as cooperation, self-control, and an understanding of the needs of others, as well as the ability to initiate social interaction. Students with deficient social skills have a greater tendency to develop behavioral problems in school and are more likely to drop out of school (Heiman & Margalit, 1998).

Recent studies have indicated that general education participation may increase social interactions between students with and without disabilities. Elementary school students with severe disabilities in inclusive arrangements spent more time participating in activities with peers without disabilities and received higher proportions of social initiations. Fryxell and Kennedy (1995) demonstrated that students with severe disabilities had greater levels of sustained contact with peers without disabilities and had richer friendship networks, relative to students in more traditional special education programs. Social benefits can accrue for students with severe disabilities from support being provided in general education placements.

Kennedy, Shukla, and Fryxell (1997) conducted a study and found that students supported in general education classrooms a) interact more frequently with peers without disabilities; b) have more social contacts with peers without disabilities across a greater range of activities and settings; c) receive and provide higher levels of social support behaviors; d) have larger friendship networks composed primarily of peers without disabilities; and e) have more durable relationships with peers without disabilities. The researcher indicated substantial social benefits for students with severe disabilities who participate in inclusive educational arrangements.

There is other research that concluded that the effects of inclusion on students with learning disabilities were less liked by their peers and were more frequently rejected than students without disabilities, had a low social status, and had few friends (Stone & LaGreca, 1990). Other research of evidence suggested that if the teacher gets the students with special needs involved with the general education students the outcome is the exact opposite. Maheady, Harper & Sacca (1988) reported that in their study most students who were being taught using ClassWide Peer Tutoring (CWPT) indicated other students were friendlier towards them and treated them better. Similarly, students felt that they too were nicer to others after using CWPT. Independent interviews with the classroom teacher revealed that she felt that it helped improve the social performance of her students.

A study conducted by Minneapolis Public Schools tried to find out which is the best way to educate students with special needs. The researchers were aware of the controversy that suggests responsible inclusion leads to effective service delivery models and instruction for students with learning disabilities (Vaughn & Schumm, 1995) versus those who hold that resource rooms promote greater academic achievement than do general education classrooms (Fuchs & Fuchs, 1995). The School District recommended that all school sites move toward inclusion by developing a collaborative services approach in which special and general education teachers teamed to instruct students with disabilities in general education settings. A comparison of students in pull-out classes versus inclusion classes was conducted. The results of the study was inconclusive. The pull-out teachers were more in favor of their program than the general education teachers. Many teachers speculated that a combination of general education and pull-out would be the most effective.

Data from their first study indicated that special education resource teachers who have experienced both inclusive and pull-out models were more satisfied with the combined services than with the inclusion only approach. In another study, Minneapolis found the reading gains of the students with disabilities served in combined services were significantly greater than those observed for the pull-out only and inclusion only groups. Another area that

was investigated was: are there differences in teacher attitudes and student performance as a function of the type of inclusion model implemented? The results demonstrated that for both teacher satisfaction and student performance, the answer is "yes." The combined services approach is superior.

Cost of Pullout Versus Mainstreaming

Regardless of what method of teaching students with special needs is used, one of the first questions asked is how much is it going to cost. It is very difficult to compare the cost of mainstreaming versus pull out because there is so much over lapping that takes place. Each side of this discussion has its own views and believes that the other side is more expensive. Madden and Slavin (1983), who support mainstreaming, argue that pull out special education services were expensive and questioned the economic feasibility of operating several categorical programs, such as special education, bilingual education, and Chapter 1 simultaneously. Vaughn, Schumm, Jallard, Slusher, and Saumell (1994), who support mainstream, argue that resources needed for successful mainstreaming are personnel, including additional teachers and teaching assistants, as well as physical resources, such as computers, books, and materials. They interviewed mainstreaming teachers and consistently identified lack of adequate resources as a barrier to successful inclusion. Each side in this discussion can support their claim to the amount of expense

it takes to run their program. Expense is a major consideration, but the bottom line must be what is the best for the students and where are the most gains made for the students.

Chapter 3

CONCLUSION

In the past much time, energy, and resources have been spent developing methods, materials, and programs to support students with learning disabilities in separate, *special class settings*, and these attempts have either not met with success, or have not been used by teachers when they were demonstrated effective. With the evidence that is available to date concerning the effectiveness of the inclusion programs, the time seems opportune that we begin to spend our time and resources in developing more effective methods, materials, and programs that can and will be used in general education classroom settings, as we continue to seek programs that expand the educational opportunities of all students with disabilities, and allow them the opportunity to receive a high quality education in nonrestrictive settings (Waldron & McLeskey, 1998).

One meta-analysis study concluded that as schools are challenged to effectively serve an increasingly diverse student population, the concern is not *whether* to provide inclusive education, but *how to implement* inclusive education in ways that are both feasible and effective in ensuring schooling

success for all children, especially those with special needs (Baker et al., 1995).

The movement toward full inclusion of special education students in general education settings has brought special education to a crossroads and stirred considerable debate on its future direction. Proponents of full inclusion argue that the needs of students with disabilities are best met in the general education setting. For these supporters, the direction to take is to reduce special education as a service delivery model. Some critics of full inclusion argue for a different direction, one that returns the special education focus to unique instructional settings such as the resource room.

The data provided by the Minneapolis School District promotes a third direction, one that provides students with disabilities the opportunity to learn in mainstream settings yet utilize special instructional opportunities unavailable in general education. Each student should be provided with what he or she needs to succeed in school, whether that is pull-out, inclusion, or a mixture of services (Marston, 1996).

All too often, education, and this includes special education, implements a philosophy or education method without the supporting research data to back up the teaching practices. In this debate of pull-out (resource room) versus inclusion, the research is being done but has not provided the substantial benefit that is needed for the researchers to suggest one method is

best. The scale is tilted a little in the direction of inclusion. Social skills are learned quicker and are generalized better by using the inclusive model. The elements necessary to make the inclusive model work are the committed teacher, adaptive assignment and tests, special education teachers and assistants to help when needed, and interaction of all students during class time. Given these requirement, the inclusion model is the best, but more research must be conducted to see what is the best way to teach students with disabilities.

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