Components of inclusion

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Abstract
As a special education teacher, I have always had a personal desire for inclusion to happen, and believed it could have benefits for all children of identified disabilities. After a recent transfer to a new school, the administration informed me I'd be teaching kindergarten with full inclusion for my special needs students. I was very excited about the prospect, but I was not armed with any solid information on how to approach a full inclusion model. As the school year progressed, my team and I forged ahead and I began researching what literature had to provide on the components needed to implement a successful inclusion program.

My goal in writing this paper is to make sense of what has been written which has a basis in research, and be able to formulate the components needed to support a successful inclusion program for the elementary setting.
Components of Inclusion

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INTRODUCTION

As a special education teacher, I have always had a personal desire for inclusion to happen, and believed it could have benefits for all children of identified disabilities. Professionally, I had little experience or training on how to implement it or make it happen successfully. I taught mostly self-contained, special education classrooms for 8 years of my 9 years in teaching, ranging from grades 3 up to middle school 6-8th. In that time I did not have a knowledge base supported by research on inclusion. I did not know how to implement instruction, or strategies and accommodations to the regular classroom, or team teach, or provide consultation to the general education teachers or involve parents. It was a matter of trial and error to figure it out as time went on. Many of my students mainstreamed into regular classrooms for classes such as science and social studies, and, in retrospect, it was never successful.

After a recent transfer to a new school, the administration informed me I'd be teaching kindergarten with full inclusion for my special needs students. I was very excited about the prospect, but as I mentioned before, I was not armed with any solid information on how to approach a full inclusion model. As the school year progressed, my team and I forged ahead and I began researching what literature had to provide on the components needed to implement a successful inclusion program. What I discovered is that the literature has no clear cut answers. Much has been written on the topic of inclusion, some based on empirical data, other written from the advocacy and/or opposing perspective.

Based on the law and legislation that has been implemented in the past two decades, “inclusion” (also referred to as integration and mainstreaming) is not going
away. Not only is it expected that all students be given the opportunity to learn with their peers, it is the law. Least Restrictive Environment considerations mean many students identified with disabilities will be served in the general education setting. Many educators have not yet come to this reality in their classroom. My goal in writing this paper is not to address or discuss the debate that surrounds inclusion. Inclusion is a given. Instead, I intend to make sense of what has been written on that which has a basis in research, and be able to formulate the components needed to support a successful inclusion program for the elementary setting. When others are presented with the task “you’ll be doing inclusion”, they will have a better chance at success for themselves and their students. It is therefore important to know what makes inclusion work successfully-for all stakeholders involved.

Statement of Research Question

What does research say are the components needed for successfully implementing inclusion in the primary grades?

History

In 1975, the passage of the P.L. 94-142 Education of All Handicapped Act was a landmark in special education legislation. This federal law mandated that students had a right to an education in the least restrictive environment (LRE). Over the years LRE has taken on many interpretations. In the early 80’s the interpretation was that of including all students with disabilities, including moderate and severe, into regular classes. By early 90’s it evolved into LRE consideration that meant to consider general education
first as an option for services (Villa & Thousand, 2003). Authors Kavale and Forness (2000) state that LRE meant a continuum of placement options be available, for some that may be in the general classroom, and for others that would not be the required or desired LRE. Although the terms mainstream and inclusion are not used in the law, their reference and implication is there by the critical component of LRE. “Thus, the LRE as intended was to identify the particular educational setting that would be the most facilitative of that child’s development.” (Martin, 1997).

In 1986, Secretary for the office of Special Education and Rehabilitative Services, Madeleine Will, set forth the REI (regular education initiative) to meet the needs of students with disabilities, particularly learning problems. Will called for a greater sharing of responsibility for students with learning disabilities between general education and special education. Advocacy groups for the REI stated it is a right of all students with disabilities to have access to the general class setting (Zigmond & Baker, 1996). REI leaders had goals for the movement. First, to merge special and general education into one inclusive setting. Second, to increase the use of mainstreaming, large-scale, full-time. And third, to improve the academic achievement of students with mild and moderate disabilities (Fuchs & Fuchs, 1994).

In 1990, P.L. 94-142 was reauthorized and passed as P.L. 101-476 the Individuals with Disabilities Education Act (IDEA) “... which mandated that students with disabilities be provided an appropriate education designed to meet their unique needs in the least restrictive environment (LRE)” (Kavale & Forness, 2000). The Act and the subsequent reauthorizations require that students be educated to the extent appropriate, with their non-disabled peers. 1997 reauthorization of IDEA required students IEP
(Individual Education Plan) to ensure academic, social and physical access to the general education instruction and experiences.

Villa and Thousand (2003) state that despite the trend toward inclusive education “tremendous disparities exist between schools, districts, and states.” The U.S. Department of Education (2003) found a range from 18% in Hawaii, to 82% in Vermont serving students with disabilities age 6-21, 80% or more of the school day in general education.

To come from the premise that inclusion is a given then there is an importance in understanding where inclusion has been and where it is now, and where researchers and experts in the field say it needs to go in the future to attain what can be agreed upon as the best chance for success.
COMPONENTS OF INCLUSION

In the body of research studies common components to what supports a successful inclusion program were evident as my search through the literature progressed. Author and researcher Diane Bricker states “Two decades of implementation and research strongly support the realization that a variety of factors and conditions can and will affect the success of inclusive programs (Lamorey & Bricker, 1993).” (Bricker, 2000). I will cover the most commonly cited components, or factors and conditions as Bricker stated, from the research with a focus on included students with mild to moderate disabilities. These components include administrative support, teacher attitude, parental support and involvement, collaboration and teaming, and classroom practices. It is not my intent to over-simplify the complexity involved in making a program successful, as there were many additional factors mentioned in the literature, however, these components appeared the most frequently and have been supported by research studies.

Administrative Support

In the body of research, there is a noticeable lack of studies done on the direct effects that administrative support, or lack of support, has on the achievement of students with disabilities. However, as the studies included in this paper show, administrative support is a consideration of inclusion.

Cook, Semmel, and Gerber (1999) conducted a study on the attitudes of school principals and special education teachers toward inclusion. Two items from the study reviewed showed significance. The first item stated “Achievement levels of students with mild handicaps would increase if they were placed full time in the regular
classroom.” The second item stated “The regular classroom with special education consultant services is the most effective environment to educate students with mild handicaps.” (Cook et al., 1999). Principals showed significantly greater support of these statements than did special education teacher respondents. An additional item that presented significance stated “If students with mild handicaps are placed full time in the regular class, then currently mandated special education resources for their instruction must be protected.” (Cook et al.). 75.51% of special education teachers responded in strong agreement to this statement, where only 32.85% of principals responded with the same high rating. This study presents evidence that administrators support the placement of students with mild disabilities in the general classroom, including increased achievement of the students and the increased effectiveness of the regular classroom with special consultative support. However, where principals strongly support the practice of inclusion in the general education setting, a majority of them did not show similar support for the requisite resources to do so.

Villa and Thousand (2003) discussed their findings on implementing high-quality, inclusive education in a report based on three sources. First, past research findings of documented effective inclusive schooling, second, their own experiences as educators, and finally 20 interviews conducted with nationally known leaders in the field of inclusive education. What they discovered is five systems-level practices for promoting and implementing inclusive education: connection with best practice; visionary leadership and administrative support; redefined roles and relationships between adults and students; collaboration; and additional adult support as needed (2003). In a study of 32 inclusive schools Villa & Thousand (1996) discovered that the amount of
administrator support and vision provided was a predictor of what the general educators’
attitudes were toward inclusion. They go on to include findings from Littrell, Billingsley,
& Cross (1994) which identified four types of support from administrators; personal and
emotional, informational, instrumental and appraisal. In summary, what Villa and
Thousand provide in this report is evidence of the importance of administrators to take a
leadership role in the vision, implementation and support of inclusive education.

In a report from Professional Standards and Practice “What Works in Integrating
Regular and Special Needs Students: A Teacher to Teacher Perspective”, participants
were asked to achieve consensus, or a lack of, in three categories 1) underlying beliefs, 2)
implementation strategies, and 3) instructional activities. Participants in the study were
teachers representing every region of the country, mostly from the special and regular
education category. Under the category of “strategies for best chance of success”,
consensus was found by the group on the statement “program has administrative support
for staff, parents and programs, and ongoing support for instructional strategies,
materials, discipline and facilities.” (National Education Association, 1993). The authors
of this publication warn against the generalizing of results. It does however, for the
purpose of answering the question of the components needed for the implementation of
inclusion, offer another piece of documentation for administrative support.

The last study to present for administrative support is the article “Moving Toward
Inclusive Practices” which documents a study done on the change process in two
California school districts to promote inclusive practices through interviews conducted
with administrators, parents, and both special and regular education teachers. The focus
group interviews were analyzed with categorical coding. Across the schools involved in
the project, five key elements that contributed to movement toward inclusion emerged from the findings. Of these, leadership was found to be the key element in initiating the change toward inclusive practices, providing vision and guidance, and continued support through organization resources and team meetings. (Burstein, Sears, Wilcoxen, Cabello, and Spagna, 2004). The interview findings showed that teachers consistently cited support from the administrator during the change process. In their discussion, Burstein et al. make reference to Kavale and Forness (2000). Kavale and Forness state that administrators, because of their leadership role, play a part of the success or failure of inclusion. Included were examples where the administrators do not believe in the effectiveness of inclusion, do not have an understanding of the students with disabilities, or are not in touch with the daily functioning of the classroom. Burstein et al. also referenced Cook, Semmel, & Gerber and their findings linking administrators, sufficient resources and teacher attitudes toward inclusion.

Administrative Support Conclusions

Most often administrative support is mentioned by teachers, of both regular and special education, in studies conducted (see Burstein et al., 2004; Cook et al., 1999; National Education Association, 1993). Not only do teachers mention administrative support in studies, other educational leaders and parents included in many studies view this as a key part of the overall success of inclusion as well.

Though it may be true that administrative support for and beliefs on inclusion is removed from the direct, daily influence on classroom functioning and student progress, it will more likely have an effect on the teachers executing the programs. It is of concern that overall results of studies show that administration, most often in control of resources,
time and staff to support inclusive programs, do not appear to be on the same page as the teachers, as the findings of Cook, Semmel and Gerber (1999) suggest. The results of their studies show a discrepancy between administrators and teachers' beliefs and opinions on inclusion.

Parental Support and Involvement

From the literature reviewed on parent support and involvement, both positive and negative results were evident. As will be shown in the review of studies to follow, the component of parental involvement and support is a part of inclusion that is part of successful implementation.

In a review on inclusion, Wang and Reynolds (1996) make reference to a study done (Wang, Haertel, and Walberg, 1994) through a meta-review of research literature. This review identifies variables and practices that have a valid basis for influence on student learning and instruction. From these findings, 28 categories were ranked in order of their influence on learning. "Home Environment/Parental Support" was ranked 4th. In that same ranking of influences, "Parental Involvement Policy" ranked 20th. The authors include in their discussion that the variables, such as district and school policies, far removed from the learning setting have the least influence (Wang & Reynolds, 1996). The findings they include demonstrated this. To reiterate, the home environment/parental support, an influence closely linked to daily functioning, ranked near the top of the list, just behind classroom management, metacognitive and cognitive processes. An influence much farther removed from the day to day functioning of the classroom, a policy for parent involvement, ranked 20th out of 28 total influences.
The following studies included from Bricker (2000), Cross et al. (2004), and Downing, Spencer and Cavallaro (2004) all demonstrate results of parental involvement where school and parents were openly communicating, part of the decision-making process, and generally supportive of the inclusive placement for their child.

Inclusion researcher and author Diane D. Bricker has been involved with inclusion programming and research since the 1970’s. In her article she mentions the work done at the Peabody College when the Infant, Toddler, and Preschool Research and Intervention Project was developed in 1970. It was the first program at the time to offer integration for disabled children along with their peers without disabilities. At the time, they did not have data on program effects to offer parents of either the disabled and non-disabled children. However, Bricker goes on to discuss three relevant topics that led to the ultimate success of the program. Of these, positive climate for children and parents is mentioned. “Parents and staff were committed to the philosophy that all the children would learn and benefit from the program activities.” (Bricker, 2000).

In the article “Elements of Successful Inclusion for Children with Significant Disabilities” Cross, Traub, Hutter-Pishgahi, and Shelton (2004) discuss the finding from a qualitative study done that focused on the practices implemented by a group of individuals including those who provide services, supports and education to students with disabilities and their families. Information was gathered from interviews, observations and written records. Data was then analyzed in three steps, resulting in four predominate topics: adaptations, attitudes, parent-provider relationships, and therapy interventions (Cross et al., 2004). The third step of analysis looked at each element in detail. In this
study, at all of the participating sites, parent involvement and participation was observed. Ongoing interpersonal communication and reciprocal exchange of information between parents and providers was noted as a critical element. Strategies noted from the study for encouraging parent involvement included staff members coordinating information given to and received from parents, and taking advantage of opportunities to interact with parents such as during drop off and pick up times. In their discussion, the authors note two important points. First, that for the success of inclusion, there was a view of parental role and responsibility. And second, that the parent-provider relationship will look different for each individual case based on the needs of the child within the context of their family.

A study conducted by Downing, Spencer and Cavallaro (2004), followed the development of a charter school designed to be a fully inclusive school. Data was gathered in interview format, coded and then analyzed. Data analysis resulted in four main themes that had been mentioned by all respondents: critical components that made the school successful, positive outcomes of the school, initial problems to overcome, and on-going challenges. Of the critical components that contributed to the success, active parent involvement was noted. Of the participants in the study (three principals, three special educators, a school psychologist, eight parents, five paraprofessionals, and nine children) all but three participants referenced parent involvement. From the data recorded it was noted that parents were involved in and kept informed of school activities and decisions. Parents themselves commented on the ease of obtaining information and having their needs met at this school as opposed to previous school experiences.
It is important to mention the findings from Hanson et al. (2001) and Daniel and King (1997) to represent parent involvement and support lacking as a component of inclusion.

In the article “After Preschool Inclusion: Children’s Educational Pathways Over the Early School Years”, the authors (Hanson et al., 2001) review the data gathered from a 5-year follow along qualitative study. The sample derived from 25 families of students identified with disabilities and eight families of children typically developing. Most families’ positive attitudes and views (of both disabled and non-disabled students) remained stable over the course of the study, even though the data shows that there was a decrease from preschool to 2nd grade in the amount of time the cohort of 25 students spent in inclusion or integrated settings. Five themes emerged from the data collected over the time period that had influence on the placement of children: (a) professional influence on children’s placements, (b) families’ abilities to access information, (c) influence of advocates, (d) match or fit between family and school needs and expectations, and (e) influence of child and family characteristics (Hanson et al.).

When parents were questioned about decision making for their children’s placements in preschool period, 11 responded that the family was the primary decision maker, 4 identified professionals or school personnel as major decision makers, and 10 families indicated that the decision was a joint family-professional decision. By the fifth year of follow along, more professionals were considered by parents to be the primary decision-makers. At this point, 6 families indicated that they made the decision, 10 identified professionals as the major decision makers, and 9 indicated the decision was a joint decision between family members and the professionals.

Over the course of the study the number of parents that saw school personnel as the primary placement decision makers more than doubled, which in turn means that fewer parents (a drop nearly in half) no longer saw themselves in this role.
In their study entitled "Impact of Inclusion on Academic Achievement, Student Behavior and Self-Esteem, and Parental Attitudes", authors Daniel and King (1997) addressed two questions. The first addressed the achievement, self-esteem and behavior effects based on the type of inclusion placement. The second question in this study addressed the extent that parents' level of concern with the type of program and their perception of their child's problem behaviors differed across the inclusion placements.

For the purpose of this paper, the findings regarding parent attitude toward the program, perception of their student's behavior and the achievement of the students will be the focus. For the non-inclusion group, parents were found to have less concern about the effectiveness of the school program and their child's behavior. In the clustered inclusion, as well as the random inclusion groups, parents reported more concern about the effectiveness of the program and were more likely to report behavior concerns about their child. This was even more so for the clustered inclusion parents compared to the random inclusion parents, however the random inclusion parents expressed a greater lack of knowledge about the school programs. For achievement, compared to the non-inclusion program, students in the 3rd grade clustered and random inclusion programs made greater gains in reading, but there were more reports of behavior problems. In 4th grade, the non-inclusion students showed greater gains in math scores in comparison to the inclusion programs. Achievement comparisons were not made for the 5th grade groups, however, it was reported that the random inclusion program reported fewer behavior problems than the clustered inclusion program (Daniel & King). Though there was mention of a lack of knowledge about the school programs on the part of some parents, students in those classes still made academic gains.
To summarize, the findings of this study are mixed. There does appear to be a connection between the reports of behavior problems in the two inclusion programs and the parent reports of behavior. However, parents from these programs were more concerned about the effectiveness of the programs, and in some instances, such as the 3rd grade, there were greater academic gains compared to non-inclusion. The results from the study by Daniel and King show that parents of the inclusion students, both random and clustered, had concerns about the program effectiveness and student behavior.

**Parental Support and Involvement Conclusions**

What can be assessed from these results on parental support and involvement is that there needs to be open communication between the school and home. Parents are a vital part of the decision-making team, not just when the student is initially placed for their special education services, but all of the time. Having a policy about getting parents involved does not ensure parental involvement. It is a reciprocal relationship built with parents actively supporting inclusive programs, involved in decision making, and having a knowledge and understanding of the program.

**Teacher Attitude**

The studies on teacher attitude all provide evidence that teacher attitude is a component for inclusion. And for successful inclusion, teacher attitude needs to be receptive, open and positive. As will be shown in this section, teachers also need to be realistic about inclusion and aware of how their implementation is or is not producing positive academic and social outcomes for their students.
In the study done by Cross et al. (2004), discussed in the previous section of this paper, research results gathered from interviews, observations and written records also included attitudes toward inclusion. General educators who participated in the study had initial hesitation about including a child with disabilities in their classrooms. However, comments about positive outcomes were expressed including the teacher helping in the child’s growth, development and learning, and feeling more confident in being able to teach children of all abilities. Specialists and therapists in the study also expressed positive attitudes toward the inclusion of children with significant needs in the early childhood setting. Comments included a change in perspective on their role and how they can serve children in an inclusive setting.

A study was conducted to determine if a consensus existed between special and general teachers’ perceptions of the supports considered critical to the success of inclusion (Werts, Wolery, Snyder, and Caldwell, 1996). A series of mail surveys were conducted at the Pennsylvania state level and at the national level. In the state survey, teachers were asked to list three supports and resources they believed were critical and three major problems or barriers they faced with inclusion. From these results, 11 categories of supports and 12 categories of problems were identified. For supports the highest percentage of response was for training (53%), team cooperation (51%) and in-class help (47%). Fewer than 10% of respondents listed having positive teacher attitudes and expectations (7%). The authors noted that special education teachers were more likely to include comments about positive attitudes being a critical factor. Again at the state level a follow-up survey was then sent asking the same participants to rate each category by importance. Interestingly, for both general and special education teachers,
the same four items—positive teacher attitudes and expectations, in-class help and support, sufficient time to plan and meet with others, and administrative support were rated as most important (Werts et al., 1996). This demonstrates a contrast to the results of the first round of surveys. Once attitude was listed as one of the 11 components on the follow-up survey, sent to the same regular and special education teachers, positive teacher attitudes and expectations was rated as one of the top four most important supports. On the national survey, teachers were also asked to list factors they felt to be critical to the success of implementing inclusion and the problems they encountered. The top three components listed for successful inclusion were additional personnel in the classroom (45%), assistance from a multidisciplinary team (38%) and training (35%). The lowest factor listed was positive teacher attitudes and expectations with 2% of respondents listing it as critical (Werts et al.). No follow-up survey for rating the importance was conducted at the national level. Teachers feel that supports like training, team cooperation and in-class help are needed for the success of inclusion. However, these teachers (regular and special education) did not appear to make a connection between their own attitudes and expectations and the success of inclusion until it was directly presented to them on the survey.

In the study mentioned earlier by Cook, Semmel and Gerber (1999) which compared attitudes held by principals and special education teachers, it is relevant to look further at the results found. For the questionnaire item stated “The special education teachers should assist in the instruction of both students with mild handicaps and other students experiencing learning difficulties” 87.75% of principals and 76.56% special education teachers agreed or strongly agreed. On the item stated “Regular class teachers
cannot meet the needs of students with mild disabilities in general education classrooms”, 69.38% of principals and 57.81% of special education teachers agreed. The results of these statements demonstrate a comparable percentage of agreement between teachers and principals. Finally, the questionnaire item stated “The regular classroom with special education consultant services is the most effective environment to educate students with mild handicaps” 63.26% of principals agreed, where only 26.98% of special education teachers agreed, showing a significant discrepancy of attitude. The data collected from this study was also used to look specifically at the special education teachers’ responses toward the statements in the survey. Even though just over 50% of special education teachers were in agreement that regular class teachers were not able to meet the disabled students’ needs, it appears from the data that half of those 57.81% special education teachers do not believe that their support or consultation in the regular class would be effective for mildly disabled students (26.98%). However, to add to the discrepancy, special education teachers (76.56%) agreed or strongly agreed that they should assist in the instruction of students with disabilities or experiencing learning difficulties. To summarize, it would appear that though teachers felt it was their responsibility to instruct the students they did not believe it would be effective or improve achievement, especially in the general education environment. The authors noted that only two-thirds of special education teachers believed that inclusion would increase the achievement levels of mildly handicapped students (Cook et al., 1999).

Salend and Duhaney (1999) conducted a review of literature on inclusion pertaining to the impact on students with disabilities, the students without, and the teachers. Included in this review was evidence of educators’ attitudes toward inclusion.
One study mentioned in relation to teacher attitude was a survey conducted by Soodak, Podell, and Lehman (1998). They found that teachers who reported low teaching efficacy, lack of experience, low use of differentiated teaching instruction and teacher collaboration were linked to teachers less receptive to inclusion. In addition, they reveal that teachers' personal efficacy (belief of their effectiveness) correlated with less anxiety about inclusion and collaboration as well (Salend & Duhaney, 1999).

Another study that demonstrates the need for teachers to be realistic about the effectiveness of inclusion is “The Effects of Inclusion on the Social Functioning of Students with Learning Disabilities” by Vaughn, Elbaum and Schumm (1996). For the inclusion model in this study, the LD specialist co-planned, taught lessons and provided supportive teaching in the general education classroom. Interviews with the general and special education teachers throughout the year revealed that they believed the inclusion program was successful because the self-concept of the LD (learning disabled) students was improved and “they feel good about themselves because they are here all day doing the same work” (Vaughn et al., 1996, Discussion section, para. 4). The teachers involved were all considered to be “supportive of inclusion and highly accepting of students with LD” (Vaughn et al.). Students in the inclusive classrooms were from the 2nd, 3rd and 4th grades, and for the purpose of this study were placed into three categories. The LD group was being compared to the social outcomes of the LA (low achieving) and AH (average-to-high achieving) within the inclusive classrooms. The method of a Fall and Spring comparison of scores from multiple measures was used. For the purpose of this review, the focus will be on the social status over time. The findings are somewhat in contrast to the impressions the teachers held of the social status and self-concept of the students.
The study revealed that in the fall, more LD students scored in the Rejected/Neglected category (8) compared to LA students (7) and the AHA students (3). A high number of AHA students (12) scored in the Popular/Average category compared to LA (4) and LD (1). In the spring, scores showed that LD students scoring in the Rejected/Neglected category increased (9), as did the AHA students (5) and LA students dropped by one (6). In the Popular/Average category, AHA students dropped (9), LA increased (6) and LD students scored the same (1) (Vaughn et al.). To summarize, the social status of students with learning disabilities who were rated by peers as rejected/neglected remained relatively stable during their year of full inclusion, in contrast to the teachers' beliefs that inclusion fostered social and self-concept improvements for the students. As shown in this study, even teachers who are identified as being “supportive of inclusion” and accepting of students with disabilities, did not have an accurate view of the progress and success of the included students, especially socially.

To address the question “Are there differences in teacher attitudes and student performance as a function of the type of inclusion model implemented?” author Doug Marston (1996) conducted dual studies. Study One focused on inclusion and the impact on special educators' caseload, instructional time and teacher satisfaction based on their experience with three types of service delivery models: inclusion only, combined services (both in general education and pull-out) and pull-out only. A questionnaire and a rating scale method were used. Part of the data collected from the study was the SERTs (Special Education Resource Teacher) amount of instructional time and setting where that instruction took place. Additional findings from Study One showed the satisfaction the teachers experienced with each service delivery models. With the inclusion model
SERTs had a moderate to significant satisfaction showing 40.3%. Those same teachers had a much higher regard for the combined services model with 71.2% moderate to significant satisfaction rate. The satisfaction rating for the pull-out only model showed 58.9% satisfaction (Marston, 1996).

In summary, the highest satisfaction for Special Education Resource Teachers in this study came from delivering services in a combined inclusion and pull-out model. Marston’s Study Two focused on the reading improvement of elementary students with learning disabilities in those three service delivery models. A fall pretest/spring posttest design was used to assess by way of curriculum-based measures, the reading performance of 240 students with reading goals. Scores of the words read per minute were then compared for the students being served in all three models. Fall results showed that the average words read per minute for inclusion only was 28.82, combined services was 25.67 and an average of 24.45 for pull-out only students. In the spring, average words read per minute had increased in all three service delivery models. Inclusion rose to 46.85, combined services to 56.28, and pull-out increased to 42.22 (Marston, 1996). A test of the significance of these results revealed that reading progress of the students in a combined services model made the most significant gains. This author contends that these results demonstrate how inclusion as part of a continuum of services was most effective in teacher satisfaction and students’ with mild disabilities reading progress.

Teacher Attitude Conclusions

Based on the findings in the component of teacher attitude, it would appear there is a range of results. However, I do believe a common theme appeared as the pieces were read and reviewed. And that would be the link between the attitudes of the teachers
involved in inclusion and the achievement of those students. If inclusion is going to happen, assuming the needed supports are in place, both the general education and special education teachers have to believe it will have greater chance for success if they hold positive attitudes and expectations for themselves and the students.

Collaboration

Collaboration can be represented in different forms, such as consultation, co-teaching or team teaching. Regardless of the form, the studies included in this paper represent positive results as well as some cautions for the collaboration component of inclusion.

In addition to their findings related to teacher attitude, Werts, Wolery, Snyder and Caldwell (1996) found in their study on critical components for inclusion results relating to team cooperation. Of the three major themes that emerged from the data, the need for help from personnel outside the classroom was listed second, being mentioned by 51% of the teacher respondents in the state level survey. Comments from respondents that coincided with this theme included having the team members and special education teacher involved with coordinating activities and instruction for the child with disabilities, and having a consultant accessible for providing assistance with behavior management and materials adaptation (Werts et al., 1996). On the national level survey, “Support from a team of professionals” was the second highest listed supports and resources considered critical in success of inclusion, with 32% of the respondents, just behind “help from additional personnel in the classroom” which was listed highest, with 42% of the respondents (see Werts et al., Table 3). To re-emphasize, Werts et al. found
in their study at both the state and national level that teachers wanted cooperation, support, access and help from the special education teacher and team members.

In the article “Making Inclusive Education Work” (2003), Villa and Thousand make reference to five systems-level practices required of inclusive education (mentioned previously). The fourth practice mentioned was collaboration. Villa and Thousand mention the findings from a study conducted by Villa, Thousand, Meyers and Nevin (1996) of more than 600 educators. In their review of what makes inclusive education work, they found collaboration to be the factor that predicted positive attitudes toward inclusion. Villa and Thousand (2003) also include results from the National Center on Educational Restructuring and Inclusion study (1995) on types of adult support. Five models of adult support were listed:

1. Consultation. Support personnel provide assistance to the general educator, enabling him or her to teach all the students in the inclusive class.
2. Parallel teaching. Support personnel—for example, a special educator, a Title I teacher, a psychologist, or a speech language therapist—and the classroom teacher rotate among heterogeneous groups of students in different sections of the general education classroom.
3. Supportive teaching. The classroom teacher takes the lead role, and support personnel rotate among the students.
4. Complementary teaching. The support person does something to complement the instruction provided by the classroom teacher (for example, takes notes on a transparency or paraphrases the teacher’s statements).

The results of the studies conducted by Villa, Thousand and others demonstrate that collaboration is being identified by educators as a needed and desired component for inclusive education. In addition, practical information like the models of collaboration, offers educators examples of the many forms of collaboration.
In their paper entitled "The Impact of Inclusion on Students With and Without Disabilities and Their Educators" (1999), authors Salend and Duhaney included a review of four studies done under the topic of collaborative teaching. First, a survey study conducted by Minke, Bear, Deemer, and Griffin (1996) found that general and special educators working together in a collaborative inclusive setting had, in comparison to general educators who taught in traditional classroom arrangements, higher levels of personal efficacy, competency and satisfaction in teaching students with disabilities (Salend & Duhaney, 1999). The second review was based on the results of interviews conducted by Phillips, Sapona and Lubic (1995) with general and special educators working in collaborative teams to teach students with mild and severe disabilities in the general ed. setting. Positive teacher responses characterized the experience including shared planning and curriculum development, trust and problem solving together, learning from each other and enjoying the partnership. Two of the collaborative teams reported it did not work due to lack of communication, unresolved teaching style differences and special education students and teacher not being integrated into the class. Concerns mentioned by the special educators included "performing a subordinate role" and "loss of specialized services and instruction" to special ed. students (Salend & Duhaney, 1999, p. 124). The third study reviewed by Salend and Duhaney was by Walther-Thomas (1997) where classroom observations, interviews, review of documents and informal contacts were used to study co-teaching teams over a 3 year period. What Walther-Thomas discovered was beyond social and academic benefits for students, there were also professional benefits for the special and general educators. This included opportunity to share expertise with others, collaborate at the building and district-wide
level, and receive personal and professional support from others. Study participants also noted problems encountered with co-teaching including scheduling planning time for the teachers as one example. The fourth study mentioned about collaborative teaching was conducted by Salend, Johansen, Mumper, Chase, Pike, and Dorney (1997) based on analysis of journal entries from a cooperative team of a general and a special educator. They discovered after initial concerns about the cooperative teaching model, the participants then found the teaching model to be “enjoyable and stimulating” and “prevents the isolation that some teachers encounter when they work alone” (Salend & Duhaney, 1999, p. 125). Salend and Duhaney found in their review of studies done on collaborative teams many positive results documented from teachers’ responses as well as some cautions such as time for planning and ability to communicate (refer to Minke, Bear, Deemer, and Griffin, 1996; Phillips, Sapona and Lubic, 1995; Walther-Thomas, 1997; and Salend, Johansen, Mumper, Chase, Pike, and Dorney, 1997).

As the next two studies will show, one by reference to Bos and Vaughn and the other by Peck, Furman and Helmstetter, that survival or failure of an integrated program could be based on the teachers’ abilities to work collaboratively. That is why a study like the one mentioned by Bos and Vaughn (1998) on the success of co-teaching could be valuable to teachers preparing to teach in a collaborative or co-teaching setting.

In the text *Teaching Students with Special Needs in the 21st Century Classroom* authors Mayberry and Lazarus include a discussion on co-teaching based on the work of Bos and Vaughn (1998).
Bos and Vaughn state that if co-teaching is to succeed there are five critical areas that must be addressed by the co-teachers:

- Who will grade and how will grades be determined?
- What classroom management procedures and classroom rules will be put in place?
- How will the teachers define their own space? Both teachers need storage and working areas that are comparable.
- How will having two teachers in the room be explained to students and parents?
- How will the co-teachers get uninterrupted planning time together each week?

(Mayberry & Lazarus, 2002, p. 41-43)

In the book *Integrating Young Children with Disabilities into Community Programs: Ecological Perspectives on Research and Implementation*, one of the authors, Peck, describes a study conducted by himself along with Furman and Helmstetter that looked at the factors contributing to surviving or non-surviving integrated early childhood programs. The data they collected were reviewed through context, process and outcomes factors and the causal effects these factors have on each other. A review of the outcomes did not find a significant difference in child cognition or affect across these programs, however, outcomes for adults working collaboratively and in teams showed a contrast between the surviving and non-surviving programs. A note from the authors of this study emphasizes the importance of the findings from the study that most of the problems in non-surviving programs were with relationships among professionals, not due to outcomes from the children (Peck et al., 1993).

Across-program collaboration and the effects on academic achievement and social participation was the focus of a study conducted by Hunt, Doering, Hirose-Hatae, Maier and Goetz (2001). This study is an example of how collaboration can also happen on a larger scale. Their study showed the positive outcomes when one team of collaborating professionals were in collaboration with a team in a neighboring school district that had
already implemented and experienced inclusive education through the use of Unified Plans of Support.

Using two types of collaborative teaming: an across-program team from the focus school, including the administrator, a second grade general education teacher, a special educator, a bilingual educator, an educational assistant, an outreach consultant and two parents, and an across-school team consisting of a team similar in composition from an elementary school in a neighboring district with experience in inclusive schooling and collaboration. A team from the university was also included as the data collectors. Three students were targeted for the Unified Plans of Support (UPS) to be developed by the collaborative teams (Hunt, et al.). One student was identified for special education and the two others were identified as being at risk for their academics and social participation.

To summarize the UPS process: prior to the development of the UPS the teams reviewed the students’ writing, spelling, math and quality of participation in the classroom activities. Team members then brainstormed supports needed after reviewing the baseline data on each student. Appropriate supports, with the team member responsible for the implementation, were recorded, along with a rating scale to monitor the level of implementation for each support. Examples include: the general education teacher developing and implementing adaptations for the special needs student, the inclusion special education teacher providing direct support to the two non-identified students, and parents following through with supports at home (Hunt, et al.). Data during the study was collected through the Interaction and Engagement Scale (IES) with direct observations, interviews, and student work samples. Results of this study show that implementation of the UPS developed by the collaborative team did have a positive
impact on the academic and classroom participation of all target students. One example of academic growth would be the special education student. Baseline data showed he was not participating in spelling tests. One month after UPS implementation, he was identifying the beginning sounds on four of the words from the class list. Post UPS, this same student was able to identify initial, medial and final sounds for words from the class list (Hunt, et al.). The article entitled “A Cross-Program Collaboration to Support Students With and Without Disabilities in a General Education Classroom” (Hunt et al.) provides a number of examples, both academic and participation, with data indicative of the gains made using this collaborative approach with Unified Plans of Support.

**Collaboration Conclusions**

Of the supports listed for components critical to inclusion, collaboration was noted in the review of literature for this paper. As mentioned previously and shown by different references throughout the review, collaboration can come in different forms. The studies represented showed a positive result from collaboration when it was being implemented successfully. Examples included in-class support, an increased feeling of effectiveness and less feeling of isolation. Some of the studies reviewed did mention the cautions and concerns teachers, both regular and special education, have about collaboration or co-teaching. These included the ability and willingness to communicate effectively, taking a subordinate role and having sufficient time for planning.
Classroom Practices

In the broad range of instructional approaches, techniques and adaptations addressed in the body of literature under the topic of inclusion, as the author of this paper, it appeared most beneficial to focus on two areas well researched and known to be supported by empirical evidence. Not to simplify the topic of classroom practices, as there are others effective in outcomes of achievement and social gains, however the direct instruction approach and cooperative grouping will be supported here by the following examples. This is only a small sampling of the data available on these two instructional practices.

Direct Instruction

Direct Instruction (Engelmann, 1980) is an instructional approach that can be used for a wide range of skills and behaviors. Haager and Klingner (2005) describe direct instruction as “An instructional approach where skills are taught in small sequential steps, students are active participants in the lesson, and immediate feedback is provided” (p. 133). In Direct Instruction, as much as possible every variable of the learning and teaching is controlled for. There is a large body of evidence that shows direct instruction is an effective means of instruction for producing academic achievement, too large in fact to cover in depth for the purpose of this paper, however, many references to studies done will be provided.

The Follow-Through comparison study is possibly the largest educational experiment conducted. In the textbook Direct Instruction, Engelmann describes nine approaches tested and compared in the study (see pgs. 6-8). The Metropolitan Achievement Test, the Coopersmith Self-Esteem Inventory, and the Intellectual
Achievement Responsibility Scale were used to assess the children (Engelmann, 1980). Results of this comparison study, after statistical adjustments (see Engelmann, 1980, p. 11), revealed that the students receiving the Direct Instruction model outperformed children in all other models on total reading, total arithmetic, spelling and language (Engelmann, 1980). The academic achievement scores for third grade students in the follow through study beginning the study in kindergarten show that the Direct Instruction students scored in the range of the 40th to 50th percentile. The students in the study receiving one of the other approaches scored anywhere in the range of 11th to 32nd percentile.

Direct Instruction was also referenced in *Controversial Issues Confronting Special Education Divergent Perspectives* second edition, by authors Stainback and Stainback (1996). Chapter 11 of the text, written by S. G. Tarver, addresses the topic of Direct Instruction specifically. Though the chapter is written from a “pro Direct Instruction” (quotations added) viewpoint, it is of value to note the studies referenced in the text that have been done related to Direct Instruction (see Gersten et al, 1986; Elliot and Shapiro, 1990; Kinder and Carnine, 1991; Chall, Jacobs, and Baldwin, 1990) all reaching similar conclusions; Direct Instruction is effective, resulting in student academic, cognitive and affective gains.

The text *Issues in Educating Students with Disabilities* (1997) included discussion on another study conducted on Direct Instruction effectiveness done in Mississippi at a school 100% Black and 85% “at risk” and student performance at about the 20th percentile (Engelmann, 1997, chap. 9). In 1978, 4th grade students at this school were at the 15th percentile for reading and 20th percentile in language based on the Stanford
Achievement Test. In 1979, they first introduced Direct Instruction. By 1985, 4th grade performance in reading had risen to the 43rd percentile and language to the 34th percentile. In 1985 the use of Direct Instruction was dropped. During the time period between 1985 and 1990 scores dropped significantly; reading to the 17th percentile and language to the 21st percentile. In 1991 the school became part of a Follow Through study on Direct Instruction conducted through the University of Oregon. Scores by 1994 showed huge increases with the implementation of the Direct Instruction approach, with reading at the 87th percentile and language at the 79th percentile. This study done in Mississippi, though dated, is a very telling example of the effects of direct instruction. It still remains of interest to see how significantly the scores dropped in the time period the school discontinued direct instruction, and the drastic increases that were made after they re-implemented it.

"Instructional Approaches for Inclusive Classrooms", Chapter Four of Haager and Klingner's text Differentiating Instruction in Inclusive Classrooms The special Educator's Guide (2005) also includes reference to multiple studies and analysis of direct instruction. One study mentioned by Haager and Klingner was done by White (1988) by way of meta-analysis of twenty-five experimental studies that compared direct instruction with other methods of teaching reading, math, language, spelling, writing, health and social skills (Haager & Klingner, 2005). The study revealed that over half (53%) of the social and academic outcomes for the students with mild, moderate and severe disabilities were from direct instruction. Additional studies referenced for the effectiveness of direct instruction, especially for students with disabilities, are included in this chapter (see
Cooperative Learning

The classroom practice of cooperative learning groups is well represented in the literature. During the review of research it was discovered that many studies on cooperative learning groups in the integrated setting focus on the effects for the students more severely disabled. However, the overriding message that has come out of the research on cooperative learning is that it is effective for meeting the needs of a diverse population of students. Haager and Klingner (2005) describe cooperative learning as the process “When students work together to accomplish shared goals- each student is responsible for his or her own learning and the learning of others in the group.” (p. 119).

Researchers Stevens and Slavin have published their findings on the effects of cooperative learning. They state in their article entitled “The Cooperative Elementary School: Effects on Students’ Achievement, Attitudes, and Social Relations” (1995) that:

Reviewers of the extensive literature on cooperative learning and student achievement have generally agreed that group goals based on individual accountability measures are essential for achievement effects (Davidson, 1985; Johnson & Johnson, 1989; Newmann & Thompson, 1987; Slavin, 1994). Cooperative learning programs that incorporate these elements consistently increase student achievement more than control methods. (p. 323)

Stevens and Slavin’s study addressed the questions of cooperative learning effectiveness over time and with mainstreamed disabled students in the regular classroom. The main focus of the study was to reorganize the school and classrooms by way of using cooperative learning across the curriculum and using it to integrate instruction between special and regular education. With a 2 year study, the first year was used to phase in the use of cooperative learning through staff training on various models of cooperative
learning and feedback on implementation. The first year, approximately 60% of the learning disabled students were able to be mainstreamed (Stevens & Slavin, 1995). During the second year of the study, cooperative learning was being fully implemented in a variety of subjects on a daily basis. Learning disabled students were fully included, with special education teachers providing support and services within the regular classroom. Three types of measurement were used in this study: Achievement, with pretest/posttest scores from the California Achievement Test in reading, language and mathematics; Attitudes, with pretest in the fall (first year) and posttest in the spring (second year) on a rating scale of attitude toward and perception of academic ability; Social relations measure, with pretest/posttest (at same time as previously mentioned measures) analysis of lists of friends. For the purpose of this paper, the results of the study specifically for the learning disabled students will be the focus. In general, after the first year of the study, there was little to no significant difference in data between the focus (treatment) schools and the traditional (comparison) schools. However, in the second year, post-measure data in the area of achievement showed learning disabled students from the cooperative schools to have significant results in the areas of reading vocabulary, reading comprehension, language expression, math computation, and math application (see Stevens & Slavin, 1995, Table 4 p. 338). In the area of social relations, learning disabled students “listed significantly more friends than did their counterparts in the comparison schools” (p. 336) and were listed more frequently as friends by non-disabled peers (see Stevens & Slavin, 1995, Table 3 p. 337). Finally, in the area of attitude and perception toward ability, results indicate that on the posttest measure, learning disabled students from the focus schools had higher perception of ability in
reading and language arts (see Stevens & Slavin, 1995, Table 2 p. 336). Authors Stevens and Slavin emphasize in their discussion that

These results are dependent on (a) the learning disabled students' being integrated into heterogeneous learning teams in classrooms, (b) the cooperative learning programs' using group goals based on individual accountability, and (c) the special education teachers' being scheduled to provide additional instruction and support to the learning disabled students in the regular classroom. (p. 343)

The article “Achievement by All Students Within the Context of Cooperative Learning Groups” documents the study done by Hunt, Staub, Alwell and Goetz (1994) on the inclusion of severely disabled students in regular classroom environments with a focus on the achievement made for both the disabled and non-disabled peers during cooperative grouping for math units. Though it not the main focus group of this paper, the review by Hunt et al. (1994) is included because it is a study on the achievement of all students within cooperative groups. It provides an example of a study that used quantitative data to demonstrate that non-disabled peers in integrated, cooperative groups made the same or better academic gains as their peers in the control setting. Hunt et al. (1994) refer to the previously mentioned researcher, Slavin, by saying “Cooperative learning has been shown to be effective for diverse groups of students (Slavin, 1983) and could potentially provide a context for learning that would support both the students without disabilities…and the students with multiple severe disabilities...” (p. 291).

Participants in the study, conducted at the second grade level, included three students with multiple disabilities who were included in general education classrooms, their classmates as members of the cooperative learning groups, and finally the comparison cooperative learning groups that did not have a member with disabilities. The focus students were from three different schools, all with similar demographics. The general
education teachers were already using cooperative learning approach on a consistent basis and additional support was typically provided by an integration staff member, volunteer or practicum student (Hunt et al.). To briefly describe the context of this study, the math units were conducted for 8-10 weeks on the concepts of geometry and money. A pretest-posttest comparison was conducted for the math skills targeted for the students. A baseline, intervention period and generalization probe were conducted for the communication and motor skills selected for each of the disabled students. As part of the project design, the researchers/observers met with the group members of the focus cooperative groups to assist them in providing appropriate prompts, cues and consequences to the students with disabilities. Results at the end of the study on the cooperative learning groups showed that there was a significant increase in the number of correct responses on the posttest for both the target cooperative groups and the control groups, which did not include members with disabilities. For example: Target group, Class 1 pretest scores were as follows for the 8 item assessment 0, 0, 1, 2. The Control group, Class 1 pretest scores were similar with 0, 0, 1, 1. The posttest scores for Target group, Class 1 increased to 8, 8, 8, 8. The posttest scores for the Control group, Class 1 increased to 7, 4, 8, 8. (See Hunt et al., 1994, p. 297 for complete table of results). The results for the three disabled participants were also positive. All three students made significant increases on their communication and motor skills objectives during the cooperative learning experience as well as generalized the results to newly formed cooperative groupings. For example, the communication objective for student, Abel, shows this growth (see Hunt et al., 1994, Figures 1, 2, and 3 for complete results). Baseline 1, for communication was one correct response. Baseline 2 for communication
response was .10. After the second intervention phase the proportion of prompted communication was .76 (compared to .65 at completion of first intervention phase) and the independent communication response was .44 (compared to .13 at completion of first intervention phase) (Hunt et al.). The authors conclude in their discussion that these types of results show that non-disabled peers in inclusive classrooms can provide the supports needed for the skill development of their learning group members as well as make significant academic and social gains themselves (Hunt et al.).

Stevens and Salisbury (1997) provided an overview of 14 studies done where cooperative learning programs were used to mainstream students with academic disabilities. What they discovered is that about half of those studies used cooperative learning with “a group goal and individual accountability (Slavin, 1983, 1990)” (p. 227). These are considered two factors needed for the most effective learning to take place (see Table 11.2, p. 229-230). Those studies that applied the group and individual factors were typically longer in duration, had higher numbers of the focus population, and used standardized measures of achievement. Stevens and Salisbury found that five of the seven studies reported significant achievement for students with learning disabilities in comparison to disabled peers being served in a pull-out or special education setting. Four of these studies also had the component of the special education teacher providing instruction, practice and support in the general education classroom. In addition, two of the seven studies also had additional collaboration between the special and general educator to address the needs of the special education students (Stevens & Salisbury).
**Classroom Practices Conclusions**

**Direct instruction.** Due to the expansiveness of the data available on the topic of both the more scripted programs (Direct Instruction- linked to Engelmann) and the broader instructional approach (direct instruction) it is not possible to within the context of this paper provide an in-depth coverage of every aspect of what research has to offer. What is important is to recognize that when looking at the studies done by Engelmann himself, and others in the research field, the empirical data presented is hard to ignore. The comparison study done by Engelmann (1980) showing the percentile ranks in comparison to other instructional practices is one example of this. Overall, direct instruction offers students a structured, step-by-step, mastery based instructional approach to learning.

**Cooperative learning.** In spite of fewer studies done on the effects of cooperative learning with mildly or learning disabled students, the work done by Stevens and Slavin offers a good example of both academic and social benefits for students. They found in their study that after the second year of cooperative learning implementation students with learning disabilities were being fully included in the general classroom and made significant gains in the areas reading, language and math. Briefly, to summarize research in the area of cooperative learning- two key points. First, effective cooperative groups should have both shared goals and individual accountability. Second, cooperative learning has been found to be effective for a wide range of students.
MY PERSONAL EXPERIENCE

What I have discovered is that while there is no simple answer to the question of inclusion, we as professionals in the field of education should hold ourselves accountable to the use of knowledge that is available to us. Through the research, review and writing process I had the opportunity to educate myself about inclusion and the factors involved and address the question what components are needed to successfully implement inclusion. So now at the end of this research analysis I ask, “Knowing what I know now what could be done differently when developing and implementing the inclusion program?”

I will answer that by first mentioning the need to spend more time in conversation with my administration to better understand their vision and attitude toward full inclusion of special needs students. Prior to beginning I did ask if there was a model for inclusion already in place that I could use for guidance, the general response was one of, we know the first year may be rocky, but you’ll figure it out as you go. And for that year, that is exactly what I had to offer the teachers and parents I was working with…the fact that I was not sure how it was going to go and that we would be figuring it out as we went along. With a clearer vision of inclusion I could have better communicated that with parents and teachers, and involved the whole team more directly with the goal of inclusion for the students. I have learned how the administrative support component of inclusion is vital to setting the vision and providing necessary resources.

I was fortunate, as I look back, to have most of the parents to be open to regular communication and involvement with their child. As with other teaching assignment I’d had in the past before full inclusion, it was reinforced for me again the importance of
communication and support for and from the parents. Participation in the general education setting full time offered some of my students' challenges as well as successes. Parents were made aware of those on a regular basis, and whether it was following through with their end of a behavior plan or reinforcing the success of a new skill, parents were given opportunities and encouraged to be actively involved. And from my observation, the students I had in full inclusion with parents not responsive or involved were not as successful, behaviorally or socially.

I would have liked the opportunity to gain a sense of the teachers' attitudes toward inclusion of special needs students, so that positives could be drawn upon and the negatives could be addressed in order to make a best fit with the inclusion program and the teachers involved in implementing it. As the year progressed, I began to see it was an on-going process to develop the needed attitude toward inclusion, for myself and the cooperating teachers I taught with. We kept in my opinion, a positive attitude about what we were trying to accomplish with inclusion because we knew we were doing the best we could with what we were given. When I read in the research that other teachers had reported feelings of hesitation followed by positive outcomes, I could relate it to my inclusion situation. The general education teachers I taught with weren't afraid to be part of the team and dig in and make it work. Along that same line, I would have educated myself more on the component of collaboration and its various forms. I am fortunate that collaboration and co-teaching have worked well in my situation, however realizing now what an important factor in inclusion it is I would want to be more prepared to foster even greater success. The collaborating general education teachers and I quickly learned how important adequate planning time is and discussing ahead of time what the
responsibilities will be. I can't deny I was leery about losing my status as a teacher, and it was an adjustment to share the teaching responsibilities. However, it was satisfying to be able to help and support all students in the classroom, not just the students formally identified with a learning or behavior need. I was not surprised to learn from the research that collaborative teaching that failed was often due to lack of communication or difference of personality or teaching style the teachers could not overcome. What I know now that I didn't know beginning is that co-teaching takes extra dedication and willingness because at that point in time no additional time or common planning was allocated to facilitate it.

Finally, I look at the research on direct instruction, and I realize I was using this instructional approach and never understood the extent of existing research and data that support its effectiveness. Personally, the model of direct instruction I subscribe to and find useful both in and out of the inclusion setting is directly teaching and modeling a skill, followed by guided practice where I am still with the student/s 100% so that as I'm continually checking to see if they are understanding, I may see the need to go back and re-teach if needed, then finally allowing for independent practice as a form of assessing if they mastered the skill and then continually watching for generalization of that skill to other areas and contexts. Direct instruction is of course not the end all be all of instructional methods, however in the past year, I have shared with other special needs teachers my discovery of the strong research base of support. Cooperative learning as an instructional strategy is not an area I understood much about formally. As I stated earlier, I believe it is something many teachers are implementing. What I can offer to inclusion teachers now, that I could not before researching it, is that it is proven effective for
increasing the achievement for all students involved. Students with a wide range of ability can take a role in the group. My personal experience with cooperative learning groups, especially at the kindergarten level, is limited. But I feel now much more open to the possibilities cooperative grouping can provide and I know there is a vast amount of resources available to teachers for reference.

In summary, inclusion has always been a personal and professional desire of mine. I feel driven to help my students succeed in the least restrictive environment possible. I won't deny my feelings over the past year and a half of both satisfaction and frustration as I have discovered what inclusion needs to be successful and how it creates failure for the students and teachers when one or many of those components are missing.
CONCLUSIONS AND RECOMMENDATIONS

Inclusive schools and the teams of individuals involved in the development and delivery of services to students with disabilities in the general education inclusion setting have a somewhat daunting task to accomplish. The body of literature and data on the topic of inclusion and the many aspects involved is conflicting and sometimes inconclusive. However, that being said, research has laid the groundwork in showing what is needed and what works to make a successful inclusion program.

In the article “Key Questions Related to Building Collaborative and Inclusive Schools” author Lorna Idol makes reference to others who have conducted research and presents a case for the building blocks of inclusion that can be generalized into any school developing a collaborative and inclusive system (Idol, 1997). Of the 15 questions she addresses, many related directly to the components of inclusion discussed in the earlier sections of this paper:

- Has the school district developed a philosophical position on inclusion?
- What about the attitudes and beliefs of the teachers toward inclusion?
- Does the district have parental support of inclusion?
- Are faculty provided with sufficient time to collaborate?
- Does everyone know what they are supposed to do?
- Do teams and pairs know how to work together?
- Does the faculty know what to do in the classrooms?

The questions Idol presents offers a starting place for administrators working with teachers and team members as a tool to guide the planning. Even if the answers to these questions are not fully addressed before beginning the implementation of an inclusive model, they help provide a guideline to the components of inclusion, and should be continually addressed as time goes on.
If the directive is given to follow a full inclusion model for the delivery of services, studies have shown teachers want the leadership and guidance of their administrators to do so. Both the Burstein et al. (2004) and Villa and Thousand (2003) studies demonstrate that the component of administrative support contributes to the success of implementing inclusion. A veteran teacher may be able to use experience as a valuable resource, however a newer teacher may not have that option to rely on. Administrators’ attitudes and support toward inclusion can be a predictor of the teachers’ attitude toward inclusion, as mentioned by Villa and Thousand. What this and other qualitative studies like it imply is that teachers want an administration that will provide leadership in the development of inclusion by facilitating planning, communication, and the necessary resources to implement an effective inclusion program.

It is necessary to stress the importance of parental involvement and support. As special education teachers, we might think that the most important part of parent involvement started and ended on the day of the IEP meeting. However, as research has shown, parents want to be communicated with about the service model their child is involved in. The fellow along study by Hanson et al. (2001) has data to show that as time went on, parents felt the professionals and school personnel were the primary decision makers. As educators who are required by law to work with a team, including parents and guardians, to develop the plan of service for the student, results like Hanson’s should raise red flags. Another interesting conclusion that came out of the research was from Wang and Reynolds review on inclusion. Of the 28 categories, having a parent involvement policy ranked 20th. This is in comparison to home environment/parental support which ranked 4th. What could be implied is that as educators what we do on a
daily basis to reach out to parents and encourage involvement in the education of their child is more effective toward the gains students make than a mandated policy written in a handbook. A policy is just words on paper until the action takes place to breath life into it. Parents may not care that there is a "parent involvement policy" to follow. Teachers can implement phone calls, home visits, notes and newsletters that let parents know how their involvement and support makes a positive impact on the achievement of their child. Downing, Spencer and Caballaro (2004) also document with their study that active parent involvement contributed to the success of the inclusive school.

Another study I want to draw attention to again is the study by Vaughn, Elbaum and Schuman (1996). The teachers in this study were reported as having positive attitudes toward the inclusion of students with disabilities. If offers an interesting point worth reflection for teachers of inclusion on their own attitudes and beliefs. These teachers stated and believed the students with learning disabilities felt better about themselves because they were in the regular classroom doing the regular work, when in reality the study revealed there were not necessarily positive social gains for those students by the end of the year. This evidence is both encouraging with the teachers' positive attitude, and discouraging that the positive gains the teacher believed were taking place were actually not. The study done by Cross et al. (2004) reported on general education teachers who had initial hesitation about including children with disabilities even though positive outcomes were reported by these teachers. Students in the inclusion setting will pick up on the attitude of the classroom teachers, both special and general, and begin to model their own acceptance, or rejection, after it. The philosophy I developed for myself when I entered the world of full inclusion was first to believe it
would be a successful program, and second believe the kids could be successful, learn and engage in the social opportunities of the classroom. The old saying “if you think you can’t, you’re probably right” would be appropriate when considering teacher attitudes toward inclusion. Salend and Duhaney (1999) discovered in their review on inclusion one study that looked at teachers’ personal efficacy and it was discovered that the higher the self-efficacy the teacher had the less anxiety about inclusion. As far as inclusion goes, the battle with attitude may be not only a personal one, but also the attempt to foster a positive attitude in others.

Studies have also shown how teacher attitude can be linked to the success of collaboration and co-teaching, in its various forms. This could possibly be uncharted territory for many teachers. Seasoned teachers may have had a negative experience with teaming and therefore hold a negative attitude toward it. A new teacher may not have the range of skills needed to contribute to the collaboration. Research in this area such as Werts et al., (1996) has found that teachers want collaboration and consultation from additional professionals for things such as behavior management and adaptations to curriculum. And it has been discovered that collaboration can reduce feelings of anxiety and isolation when dealing with the challenges of making inclusion work. In any case, building an understanding of what collaboration can and should look like, and being able to anticipate some of the barriers that will need to be addressed is one step that the involved teachers can take toward successful implementation.

In the field of inclusion, quantitative studies don’t necessarily diminish the need and purpose of qualitative evidence, seen more prevalently in the components of administrative support, parental involvement and teacher attitude. The majority of
studies reviewed on these components tended to be of a qualitative nature. In the world of education these factors could possibly be viewed as one step removed from direct, day to day impact on achievement. This may or may not lead to the conclusion these components, although linked to inclusion success for students with disabilities, are secondary in importance for achievement and social outcomes of mildly disabled students.

So, focusing then on classroom practices, a strong quantitative support was evidenced in the body of literature and the focus of studies with empirical data related more directly to student outcomes. Teaching and learning are the heart of student outcomes, and closely related to the day to day functioning of a classroom is the component of classroom strategies, in this case cooperative learning and direct instruction.

The classroom strategies component of inclusion needs to be seriously considered by inclusive schools. Zigmond made the statement “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.” (Zigmond, 2003, Conclusion section, para. 1). My own pre-service training in special education included a type of direct instruction model, and until recently I never realized the body of evidence and works that support it, such as the work done by Engelmaan. My own experience with direct instruction has been, though criticized for being too scripted or rigid, offers students the opportunity to develop skills using high repetition, frequent on the spot feedback and mastery of skills as new skills are added. Cooperative learning may be a similar situation. As teachers we may use it, in some form or fashion but never grasp the research base that stands behind it. Research on
cooperative learning is showing us that all members, both disabled and non-disabled, benefit academically and socially from involvement in cooperative learning groups (see work of Slavin and Stevens). What has been offered in this paper is just a glimpse of the documentation showing the effectiveness of cooperative learning. Teachers have a huge collection of resources written specifically on the topic of cooperative learning at their disposal.

Direct instruction and cooperative learning are only two of many approaches and strategies used in teaching and learning. School districts and teachers should be encouraged to examine their current classroom teaching and learning approaches and investigate the evidence that may or may not exist to justify its use.

**Concluding Statement**

As the picture of the components needed for inclusion started to develop, an analogy began to form and provided me with another way to look at the components of inclusion that leads to the achievement of students with disabilities. On the road to inclusion, general education and special education teachers are driving the vehicles of inclusion and collaborate and consult with each other as they read the map and decide what route to take. They turn the steering wheel with planning, push the gas pedal with instructional strategies and slow down or apply the breaks when needed. On the way to inclusion, the drivers pull through the drive-up window of parent involvement and place an order for the things they need parents to be involved with in the home and school to super size academic growth. Though the teachers behind the wheel may not have had any direct influence on the administration who wrote and enforce the traffic rules or
constructed the roads they are still responsible for having the correct attitude as drivers and an understanding of every aspect of driving a car and how their driving might affect others on the road. If administrators and inclusion teachers don’t share the same attitude or vision for inclusion it would be like the principal giving driving directions that head toward inclusion and the teacher getting lost and never arriving at the destination. Just as there are needed components to driving in order get to the destination successfully, inclusion has components that need to be in place in order for inclusion to result in students that learn and develop socially. Administrative support, parental involvement, teacher attitude, collaboration and classroom strategies. When one of these components is missing, the road to inclusion will be a bumpy one, possibly resulting in a dead end or our students with special needs sitting stalled on the side of the road.
References


