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Inclusive Practices in Tennessee: An Investigation of Co-Teaching in Middle Tennessee Schools

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Abstract

With the advent of Inclusion (circa 1992) predicated on the principle of the "Least Restricted Environment" (USDOE, 2003) and the recent "No Child Left Behind" legislation, schools and school districts around the country began educating students with disabilities in general education classrooms. Arguments for and against the efficacy of this practice flourished among teachers and researchers alike. Nevertheless, state education and local education agencies (SEAs and LEAs) adopted the recommended initiative and began to institute inclusive practices within most of their schools. This service delivery change created a dilemma for the general education teachers who considered themselves unprepared for the infusion of students with disabilities into their traditionally homogeneous classrooms. Clearly, a new approach in instruction was required and, in response to this perceived need, co-teaching was preeminently recommended. The current investigation was intended to assess the state of co-teaching in Middle Tennessee schools. Results revealed a spectrum of perceptions regarding the efficacy of co-teaching. Those predisposed to the model shared characteristics that are discussed in the article.

Introduction

In compliance with the "least restrictive environment" principle of IDEA (USDOE, 2003), inclusion has become increasingly popular throughout the country as a means of service delivery. The efficacy of inclusion, as determined from student outcomes as well as teacher and

student perceptions, is unclear (Murawski & Swanson, 2001). Furthermore, not many teacher education programs prepare their prospective teachers for the inclusive classroom, and few school administrators appear to have a clear understanding of effective inclusive practice (Pivik, McComas, & LaFlamme, 2002 ; Salisbury & McGregor, 2002). The principal researcher had conducted a similar study in New Jersey in 1999 and, as a result of an employment opportunity in Middle Tennessee, was presented with an opportunity to sample a different culture and region as a comparison. In order to better prepare teachers for the reality of inclusive practice in Middle Tennessee the researchers examined co-teaching in this region from the teachers' perspectives.

<div align="center">A Review of Relevant Studies</div>

Currently, there are several models of instruction used in inclusive classes. The adoption of one of these forms of instruction may reflect an awareness of recommended practice, a need for fiscal restraint, or the expediency of the moment in order to comply with the principle of "least restrictive environment," which is assumed to be the general classroom for all students unless otherwise determined. The instructional model currently recommended in the literature is a "teaming" or "co-teaching" model characterized by the equitable division of labor between both the special and general educator (Fishbaugh, 1997; Mostert, 1998). Other formulations of inclusive teaching practices include "coaching," and "collaborative-consultant." In the coaching model, each teacher serves as a resource for the other in specific areas of expertise (e.g., the special educator might be more adept at remediation and curriculum adaptation whereas the general educator might be more knowledgeable about the curriculum). In a slightly different vein, the collaborative-consultant model employs the special educator in the role of academic/behavioral consultant, acting as a resource for the general education classroom teacher (Mostert, 1998).

Teachers surveyed in other studies share similar concerns regarding a lack of adequate teacher preparation and on-going in-service training in inclusive teaching practices (Chandler, Freiberg, D'Antonio, & Nelson, 2002; Jobe, Rust, & Brissie, 1996; McCormick, Noonan, Ogata, & Heck, 2001; Monahan, Marino, & Miller, 1996). These educators noted the importance of teacher preparation programs that include courses on collaborative and consultative teaching methods designed for use in inclusive classrooms. Furthermore, they recommended that pre-service teachers participate in effective inclusion programs in conjunction with their student teaching assignments (Avramidis, Bayliss, & Burden, 2000; Shade & Stewart, 2001). Finally, a majority of teachers' responses in several studies suggest that they consider on-going in-service training to be critical to effective inclusive practice (Avramadis, Bayliss, & Burden, 2000; Chandler et al., 2002; Fennick, 2001; Gerber & Popp, 2000; Hammond & Ingalls, 2003).

Similarly, teachers involved in inclusion in several studies reported that they considered administrative support crucial in the development of successful collaborative programs (e.g., Hammond & Ingalls, 2003). They listed allocation of classroom resources and scheduled planning time as the most desirable administrative supports (Appl, Troha, & Rowell, 2001; Austin, 2001; Bryant & Land, 1998). Paradoxically, most schools and school districts do not adequately support their mandated inclusion programs. This can create dissonance between administration and teaching staff and unfavorably prejudice teachers and administrators against inclusion (Praisner, 2003; Shade & Stewart, 2001).

If SEAs and LEAs are encouraging the proliferation of inclusion within their school systems, it would seem prudent for teacher preparation programs to investigate current practice in order to better prepare new teachers for the realities of today's inclusive classrooms. Prompted by this incentive, the researchers surveyed teachers assigned to inclusive classrooms throughout Middle Tennessee in order to discover their perceptions of inclusion and

collaborative teaching as well as their recommendations for improving practice. Because general education teachers and special education teachers often see their responsibilities and teaching strengths as significantly different, wherever possible, the researchers separated their responses and compared them. Ideally, this knowledge will be used to modify extant special and general teacher education curricula to better reflect the needs and demands of the field and thus increase the readiness of pre-service teachers to serve effectively in today's inclusive classrooms.

Methodology

Instruments

All participants were assessed using a single survey instrument, *The Perceptions of Co-Teaching Survey* (PCTS). The survey consisted of two major components: Part One provided demographic information; Part Two solicited information according to four specific categories relevant to teacher perceptions of collaboration.

The researcher developed the survey in consultation with Fennick (1995). In addition, the following sources were examined in selecting the most appropriate survey items: (a) Collaborative Team Performance Survey and Part II: Collaborative Team Assessment Inventory (Hebert, 1998); (b) Co-Teachers' Perceptions on Their Effectiveness in Co-Teaching (Bixler, 1998); (c) Survey of Barriers to Collaboration, Analysis of General and Special Education Roles (Lackaye, 1997); (d) Attitudes and Attributes of General Education Teachers Identified as Effective Inclusionists (Olson, Chalmers, & Hoover, 1997); (e) Essential Elements for Successful Collaboration (Gaut, 1994); (f) Development of a Scale to Measure Attitudes Toward Inclusive Education (Wilczenski, 1995). Further, the survey design was developed within the parameters recommended by Fowler (1988, 1995), Alreck and Settle (1995), and Dillman (1978). Each item category in Part Two of the survey was developed to provide useful information specific to one

of four categories: (a) Co-Teacher Perceptions of Current Experience, (b) Recommended Collaborative Practices, (c) Teacher Preparation for Collaborative Teaching, and (d) School-based Supports that Facilitate Collaborative Teaching.

As a confirmatory step in the refinement process, a draft of the survey was submitted to nine experts for review. These expert consultants were selected based on their experience with survey research (e.g., survey construction or such). Each consultant was asked to review the survey for validity, clarity, and relevance and was requested to recommend improvements. Finally, a pilot study was conducted in the Fall of 1998 using a modified version of the survey. The results of the pilot were examined and used to further modify and improve the validity, clarity, and relevance of the survey instrument.

A qualitative instrument, *The Perceptions of Co-Teaching Interview Protocol*, was developed using the "Interview Format with Probing Questions" model provided by Cox (1996) and incorporating relevant criteria suggested by Bannister, Burman, Parker, Taylor, and Tindall (1994); Downs, Smeyak, and Martin (1980); Shipley and McNulty Wood (1996), and Seidman (1998). A major feature of this design was that the interview questions were written in sets, each set developed to examine a particular issue of relevance to the collaborative teaching experience. The first question in each set was typically one that could be answered "yes" or "no" (Cox, 1996). Subsequent subsets of probing questions related to each set were designed to elicit deeper explanation, relative to the participant's response to the initial question. The same questions were posed in the same way to each participant by the researcher in order to ensure consistency and, therefore, a more reliable response analysis. Use of this format enabled the quantification of responses and therefore simplified the summary of the data.

Procedures

Three hundred surveys were distributed to teachers in inclusive classrooms within schools in four counties in Middle Tennessee. School district administrators were sent letters explaining the purpose of the investigation and requesting general information about the extent to which their districts employed inclusion. In addition, the administrators were asked whether they would support the distribution of surveys within their schools and suggest an efficient means for collecting the completed surveys. The majority of the administrators were very compliant and supportive of the project. Most suggested that the investigators drop the appropriate number of surveys at each school and return within a specified period of time to collect them.

After all the surveys were collected, the researcher randomly selected an equal number of both special education and general education co-teachers who had indicated on a separate form a willingness to participate in a follow-up interview. Each potential participant thus identified was contacted by telephone and scheduled for an interview. Those who agreed to be interviewed were also asked for permission to tape record their responses to facilitate an accurate analysis. The interviews themselves averaged 15 minutes and were all conducted in an appropriate setting within the various participants' schools. Because the researchers used a semi-structured interview script (Cox, 1996), the analysis simply involved transcribing the tapes and identifying trends and outliers that inform the thesis of the study.

Data Analysis Procedures

The Survey. The data were analyzed using the statistic package SPSS version 10.0 for Windows (SPSS, Inc., 2001). The scaled response for each survey item was assigned a number from 1 to 5 to ensure equal distribution across the scale.

Analyses were conducted to determine the frequency of responses of general education co-teachers and special education co-teachers across specific demographic categories (e.g., novice teachers vs. veteran teachers, male teachers vs. female teachers, volunteers vs. nonvolunteers). Demographic categories that produced such nominal data were examined by means of cross-tabulations. *T* tests of paired samples were conducted on demographic categories that produced ordered or interval data.

Cross-tabulations were conducted on the data from each survey item in Part II to determine the frequency of responses of the special education and general education co-teachers. Comparisons of responses of special education and general education co-teachers for each survey item between the "value" and "employ" or "value" and Access" categories were accomplished by a t-test for Equality of Means. In addition, Pearson Correlations were conducted on the six categories to identify trends in the responses of special education and general education co-teachers.

The Interview Script. The semi structured interview script was designed to provide a focused response to both the "set" and "subset" questions (Cox, 1996). The analysis of the transcribed responses of the thirteen participants was facilitated by the identification of trends among the answers to the same question as well as anomalous responses. Tuckman (1998) recommended that at least 20% of responses be audio taped, then transcribed verbatim and coded by at least two judges or raters if more than one interviewer was used. The researchers followed this protocol to ensure intercoder and, ultimately, interrater reliability.

Results

Relevant Demographic Findings

Of the total number of survey respondents (N = 135), 47 indicated they were certified and employed as special education teachers and 88 revealed that they were certified and

employed as general education teachers. However, all 135 were currently assigned to one or more periods in inclusive classrooms. Sixteen percent of these teachers noted that they were dually certified in both general and special education. Additionally, 55% (n = 74) said they co-taught in elementary-level classrooms, 30% (n = 41) reported that they co-taught in middle school classrooms, and 15% (n = 20) indicated that they taught in inclusive classrooms at the high school level.

Furthermore, 55% of the respondents said they co-taught two or more subjects; however, 36% of special educators indicated that they co-taught at least two subjects as compared with 28% of general educators. In addition, 48% of the respondents achieved a Bachelors degree, 27% acquired a Masters degree, 24% had completed coursework beyond a Masters, and one had obtained a doctorate. A comparison of results for special and general educators revealed that 19% of special educators as compared with 32% of general educators had achieved a Masters degree.

In terms of total years teaching, 25% had been teaching from 1-5 years, 21% between 5 and 10 years, 16% had between 10 and 20 years of teaching experience, and 28% said they had been teaching more than 20 years. Also, 87% of the respondents were women. Again, comparing the two groups of co-teachers, 72% of general educators said they had 1-3 years of co-teaching experience whereas 45% of the special educators reported having 1-3 years of experience.

Also noteworthy was the fact that 59% of the respondents said they had one year working with their current co-teaching partner, 23% reported that had two years, and 8% said they had been co-teaching three years with the same partner. In addition, of possible significance is the fact that 21% of special educators versus 14% of general educators co-taught three classes per day. Similarly, 21% of the special educators co-taught 3 different subjects daily

as compared with. 11% of general educators. Finally, 48% of the respondents indicated that they had volunteered to teach in an inclusive classroom whereas 52% said they had not. This finding was significantly differentiated between groups of teachers in that 40% of general educators reported volunteering to co-teach versus 64% of special educators.

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Insert Figure 1 about here

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Part Two Survey Results

This part of the survey solicited respondents' perceptions of current experience as a co-teacher, recommended collaborative practices, teacher preparations for co-teaching, and school-based supports that facilitate co-teaching. In an effort to use the available sample, both paired surveys (those culled from actual teams as identified by the teachers themselves) and unpaired surveys were include in the analysis. To effectively accomplish this analysis, t-tests (significance level = p < .05) were conducted on the data from both the special education and the general education co-teachers within each category of survey items to compare their perceptions. In addition, within each category, discrete items were analyzed using simple cross-tabulations, once again discriminating between the responses of general and special educators. Finally, the data from each item category was correlated with that of the others, using a Pearson Correlation test to determine whether a significant relationship existed that might help to suggest trends or generate hypotheses (Sig. 2-tailed; significance level = .01). A discussion of the findings for each category follows.

Co-teacher Perceptions of Current Experience

Based on the results of the t-test, there was a trend (p = .062; significance level = p < .05) represented in the responses of general educators versus special educators for each of

these items. This suggests that there was an important discrepancy between the perceptions of these two groups. Generally, for each of the items, except the one that states "I do more than my partner," special educators were slightly more positive in their endorsement of co-teaching as a positive experience. For example, 79% of special educators agreed or strongly agreed with the statement "Co-teaching is a worthwhile professional experience" versus 61% of general educators.

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Insert Figure 2 about here

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Recommended Collaborative Practices

There was a high correlation demonstrated between the responses of the general and special educators to the items within this component for both the "value" and "employ" categories. This result is interpreted to mean that, for both groups, the practices delineated in this component of the survey were considered to be valuable and were actually used by these two groups of teachers to a similar degree.

Teacher Preparation for Collaborative Teaching

Based on the results of a t-test conducted on these items, there was a significant difference (p = .044) between the responses of general educators and special educators. Specifically, more special educators than general educators considered the teacher preparations identified in the survey items to be somewhat or very useful. The most significant discrepancies were found in the responses of both groups to the item, "Student teacher placement in a co-taught inclusion class," which 90% of special educators considered a very useful or somewhat useful preparation as compared with 80% of general educators.

Similarly disparate were the responses of these two groups to the item "Pre-service special education courses for general education teachers," which 90% of special educators found very or somewhat useful contrasted with 76% of general educators.

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Insert Figure 3 about here

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Interestingly, fewer special educators (83%) and general educators (73%) considered "Pre-service general education courses for special education teachers" as a very useful or somewhat useful preparation for co-teaching. Also of interest, based on the outcomes of a Pearson Correlation test, the responses of both special and general educators to the survey items in this category correlated very highly with their responses to the items in the "Co-teacher Perceptions of Co-teaching" and "School-based Supports that Facilitate Collaborative Teaching-Value" categories.

School-based Supports that Facilitate Collaborative Teaching

The results of a t-test comparing the responses of both the general and special education co-teachers in this category revealed a significant discrepancy (p = .037) for the "value" section. The greatest disparity between the groups was found in their responses to the item "In-service training opportunities provided," which 76% of the general educators said they valued versus 85% of the special educators.

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Insert Figure 4 about here

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In addition, 54% of general educators said they valued the allocation of summer planning time as compared with 40% of special educators, and 72% of general educators noted that they valued opportunities to modify the classroom configuration versus 81% of special educators.

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Insert Figure 5 about here

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Furthermore, Pearson Correlation tests conducted on the data revealed a significant correlation between the responses of the special and general educators to items in the "value" category as compared with their responses to those same items in the "access" category (.251; significance at the .05 level). Similarly, the responses of both groups under the "value" category correlated significantly with those in the "Recommended Collaborative Practices" and the "Teacher Preparation for Collaborative Teaching" categories (.376 and .310 respectively; significance at the .01 level). Finally, the responses of both groups under the "access" category correlated significantly with the with the "Co-Teacher Perceptions of Current Experience" category (.290; significance at the .01 level), and the "Recommended Collaborative Practices-Employ" category (.251; significance at the .01 level).

The Semi-structured Interview: Perceptions of Co-Teaching

A careful examination of the responses of both the special education and general education co-teachers interviewed revealed the following.

Similar to the survey results, eleven of the thirteen co-teachers interviewed stated that they considered their co-teaching experience a positive one. The special educators described some of the positive aspects to include an opportunity to "know what the average third grader is doing…you are able to know a larger number of children…more families, and the whole thing." Some of the general educators identified "learning new techniques," having someone to

"bounce ideas against" and providing extra help for all the students in the class as important benefits of co-teaching.

In response to the question posed next, "Have you taught in a self-contained special education or regular education classroom (non-inclusive)?" eleven of the thirteen teachers interviewed indicated that they had. In probing teachers' experiences in non-inclusive settings versus inclusive ones, the authors found the following comments to be representative: "…it would be nice if the whole class could stop and sit on that skill, which is what happened with the co-teaching. …it is harder to reach everybody when you don't have the backup of your team member,"; "Teachers are always worried about curving the curriculum. I will say that my classes…are at the same place. I am very pleased…I think my general ed students are doing well in my inclusion class."

The Eleven of thirteen teachers interviewed replied affirmatively to the next question, "Has the co-teaching experience contributed to your professional knowledge and skill?" A typical response was "Yes. I think just being aware of how to help someone more, and being willing to be flexible. I learned more about what kids could do, how far you could push them, or how hard you could push them, how much you needed to step back. You got a better feel for the groups of children."

Likewise, responses to the question, "Are you generally satisfied with your current co-teaching assignment?" were generally positive. Nine of the thirteen interviewees cited the benefit of the support of a second teacher as the primary reason. A very common concern of many special education co-teachers is the tendency to be relegated to a supernumerary position in the classroom as this teacher's comment reflects, "The other one pretty much treats me like her assistant. She hesitates to allow me to teach something other than just reading out of the

reading book. She doesn't like to let go. She doesn't mind asking me to 'take these to the copy machine—I need 12 copies'."

The next question, "Are you satisfied with the level of support provided by your school to facilitate collaborative teaching?" elicited very mixed reactions. Seven of the interviewees responded with a qualified "yes." Typical of these responses was, "I think having an extra 30 minutes a week for planning would be really nice. [In a previous placement] we knew, every Friday, that someone was going to be in our classroom for 30 minutes so that we could sit and plan. I think that would be a great benefit." The need for extra planning time was identified as a critical support by two special educators and four general educators. Five of the co-teachers interviewed said they were not satisfied with the level of support provided, citing a lack of guidance and interest on the part of the administrator. One dissatisfied general education co-teacher stated, "There's really not [support]. I think this is kind of our own thing. You know, Kathy and I both feel that this is the best way for children to learn and be supported. I am not sure that the admin. even knows we are doing it. If he does, I am not sure that he would support it."

It is noteworthy that the special educators unanimously confirmed the efficacy of co-teaching in educating both students with and without disabilities. A representative response was reflected by a general educator when she stated "I think that the things that are helpful for the special ed. kids also help our regular ed. kids. I think it helps to have two different people giving them different ways to do something."

Furthermore, in discussing the two questions relative to the efficacy of inclusive education in promoting the social development of students with and without disabilities, twelve of the thirteen interviewees perceived the experience as "beneficial" for students without

disabilities. Reflecting on the nature of these benefits, one general educator observed, "The children, themselves, learn how to accept other children and overlook a disability over time."

In a similar way, reflecting on the effects of inclusion on the social development of students with disabilities, twelve of the co-teachers interviewed stated that they considered it very beneficial. One general educator noted, "As far as students with disabilities, they want to be so much like everyone else. I think that is one way for them to feel that way. I think they learn to make new friends. They can learn to identify with different people than the ones that they are always grouped with."

Moreover, responses of both the general education and special education co-teachers to the question, "Are your students generally receptive to your collaborative teaching" revealed complete agreement. An example of this belief is reflected in one special educator's response, "Yes, they announce my arrival, and they get excited when I come. They look forward to me being there. I think they are very accepting." Consistent with this statement, a general educator enthusiastically observed: "Oh, yes. They loved having more than one teacher. They were just happier. They loved being the center of attention. When you have more than one teacher, they get more attention."

Discussion

In examining the findings of the study, certain valuable inferences can be drawn and some plausible explanations offered that will help fulfill the purpose of this investigation; namely, to learn about the state of co-teaching and efficacy of inclusion in Middle Tennessee.

An assessment of the demographic data revealed that almost two-thirds of the respondents were certified in general education (elementary or secondary-level). This uneven distribution of respondents made it impractical to analyze the responses as paired data,

therefore, the findings were analyzed as an aggregate and, where appropriate by category of teacher (special or general education).

Particularly noteworthy is the finding that 48% of all the respondents indicated that they had two years or less experience as a co-teacher and 59% reported that they had only co-taught one year or less with their current teaching partner. The implications of these findings conform to those of previous studies, which showed that teacher perception of the co-teaching experience are positively correlated with both years of co-teaching experience as well as years co-teaching with the same partner (Bixler, 1998; Hebert, 1998).

Furthermore, the higher percentage of numbers of special educators (79%) versus general educators (61%) who indicated that they perceived co-teaching to be a worthwhile experience may have been influenced by the fact that more special educators indicated they volunteered for a co-teaching assignment (64%) as compared with their general education counterparts (40%). In addition, both general and special educators endorsed the value of meeting daily to plan lessons, sharing classroom management responsibilities as well as instruction, regularly offering feedback to each other, and establishing and maintaining specific areas of responsibility. However, despite valuing them, they were actually less likely to employ them in their practices for reasons that, based on data obtained from the interviews, may be hypothesized as: (a) time constraints, (b) lack of competencies due to ineffective preparation, (c) poor communication between partners, or (d) the irrelevance of these strategies to actual practice. However, the 'value' and 'employ' responses of both groups were highly correlated for "sharing classroom management," and "regularly offering feedback," suggesting that these collaborative practices are both valued and used.

In addition, special education co-teachers appeared generally to consider teacher preparations for co-teaching to be more useful than their general education counterparts.

Specifically, special educators considered pre-service special education courses to be more useful for their general education partners than for themselves. Interestingly, more special education respondents also considered pre-service general education courses useful as compared with the general educators. This finding might be explained by the fact that, in general, special education teachers are more receptive to co-teaching and inclusion because they may be influenced by the principle of "least restrictive environment" espoused in IDEA (1997) and the general education classroom manifests that concept. Furthermore, the special education teachers in this study had been teaching fewer years on average than the general education teachers and likely graduated more recently from teacher preparation programs that espouse inclusive education and co-teaching.

Based on the results of the data analysis, there exists a significant difference between special education co-teachers and general education co-teachers preferences regarding the various school-based supports presented in the survey. The most important finding was the degree to which each group "valued" and "had access" to the allocation of summer planning time. A significantly higher percentage of general educators considered it important and engaged in it than special education co-teachers. This disparity may be accounted for by the fact that special education teachers attend more planning meetings during the school year because, on average, they co-teach with a greater number of teachers than do the general educators. The high degree of correlation of both groups' responses under the "value" and "access" columns for the "school-based supports" category suggests once again, that as with the "recommended collaborative practices" category, more teachers value these supports than actually have the opportunity to use them.

The majority of co-teachers interviewed said that they considered their co-teaching experience as a generally positive one, citing the benefits of having a supportive partner and

learning new teaching strategies as among the most important reasons. Similarly, a majority of co-teachers felt that co-teaching inspired them to try new approaches that helped them provide more individualized instruction for their students and thus contributed significantly to their professional growth.

In addition, a majority of co-teachers interviewed expressed dissatisfaction with the level of support provided by their school. This finding confirms the survey results, which revealed that, at minimum, dedicated planning time needs to be scheduled for every co-teaching team. Likewise, several teachers indicated a need for more involvement on the part of the building administrator reflected in the provision of consistent feedback, monitoring of class size, and an adherence to effective research-based inclusive practices (e.g., the number of students with disabilities included in a given classroom should reflect the school-wide percentage). Also, some in-service training was recommended as an important school-based support. As an elaboration of this last point, the authors recommend that schools identify effective in-service training programs and provide logistical supports that respond to the express needs of their co-teachers.

In contrast with some earlier studies (Boudah et al., 1997; D'Alonzo et al., 1997), the teachers interviewed in this study considered that collaborative teaching strategies produced positive academic outcomes for students. This finding is supported by an earlier study (Austin, 2001). Some of the academic benefits identified included the use of alternative assessments, working from a student's academic strengths in acquiring a new skill, the use of a multi-modal instructional approach where and when possible, the provision of more stimulating, meaningful lessons, and more individualized instruction. Further, a few of the co-teachers interviewed in the study reported improved scores on standardized assessments, which they felt confirmed the efficacy of their co-teaching.

Similarly, the majority of co-teachers interviewed agreed that participation in an inclusive experience contributed to the social development of their students, consistent with the findings of several prior studies (Austin, 2001; D'Alonzo et al., 1997; Klinger et al., 1998, & Peltier, 1997). Some of the contributions to the social development of students in inclusive classrooms as identified by the co-teachers in this study included increased understanding of and tolerance for differences, increased self-esteem and self-efficacy, and improved social skills. In concert with the findings of an earlier study (Austin, 2001), a few of these teachers cautioned that students with more severe disabilities (e.g., severe mental retardation, autism, or severe emotional disturbance) would be unable to engage in the curriculum, which might increase their sense of alienation and difference. This concern should be considered when assigning students with disabilities to inclusive classrooms. The guiding principle should always be to provide the educational environment that best meets the needs of each student.

In the same way, the responses of both the general and special educators were unanimous in affirming their belief that students were generally receptive to their co-teaching. In support of this, the teachers cited student engagement, acceptance of both teachers, and a marked enthusiasm as indicators of their receptivity. The apparent popularity of co-teaching among students may help to account for the satisfaction of these teachers with co-teaching and their willingness to continue teaching in an inclusive classroom.

The following limitations of this study suggest caution in the interpretation of the results and restrict the generalizability of the findings. First, the final participant sample was limited (N = 135), and must be considered when interpreting the results. Second, due to the disproportionate number of general education co-teacher returns (n = 88) versus special education co-teacher ones (n = 47), an analysis based on paired data was not possible; however, the researchers were able to differentiate the data based on these two categories of co-

teachers and obtain significant results. The interview process was conducted to ensure a more balanced representation. Third, the study was conducted in a region of the southern United States that reflects a unique socioeconomic and sociopolitical lifestyle that may influence the perspectives of the participants. Fourth, both the survey and interview processes depend upon the candid responses of participants. There can be no way for the researchers to ensure this was the case. Finally, all of the participants were volunteers and therefore potentially biased towards the efficacy of inclusion, relative to this, 61% of the general educators and 79% of the special educators said they considered co-teaching a worthwhile experience.

Implications

The following recommendations were derived from the findings and suggest possible improvements in co-teaching practice as well as some implications for future research.

First, schools and teacher training institutions should be cognizant of the reasons so many teachers report co-teaching as a worthwhile professional experience in order to substantiate its value as a model of instruction and identify key skills that should be included in their professional development and teacher preparation programs.

Second, the provision of daily planning time, pre-service and in-service courses in collaborative teaching and special education, should be , at this stage in the development of inclusive education, de rigueur. The fact that many teacher preparation programs and school districts currently do not provide the necessary supports and preparations recommended in the literature represents an impediment that must be overcome and quickly.

Third, and related to the prior recommendation is the general lack of awareness on the part of many school administrators of recommended research-based practices in inclusion. This was most apparent from informal conversations between the authors and the building administrators in the schools in which they conducted research for this study. Very few of them

showed a clear understanding of effective inclusive practice or recommended models of teaching within these classrooms. This experience provided the authors with insights about the lack of support and guidance reported by the co-teachers in these schools.

Similarly, impelled by the proliferation of the inclusion model in today's schools, pre-service teachers must be trained in the best research-based practices to effectively teach in heterogeneous classrooms. Effective teacher preparation programs should, at minimum, provide and require courses in collaborative teaching and special education, as well as student teaching placements in inclusive classrooms for all their students regardless of certification area or grade level. Further study needs to be conducted to identify effective co-teaching practices that will be incorporated into the teacher preparation program.

Next, school building and school district administrators must be provided current, research-based information about how to develop and administer effective inclusive education programs. This cannot be left to chance nor can it be accomplished in a single workshop or limited in-service program, it requires a serious on-going commitment. But it must occur if these administrators are going to participate meaningfully in the development and supervision of effective inclusive programs.

Lastly, as recommended in an earlier study (Austin, 2001), and all the more urgent three years later, are the need for studies that measure the academic outcomes of students with and without disabilities in inclusive classrooms. Only these data will confirm or disconfirm the efficacy of co-teaching as well as the inclusive model in the academic development of the students in these classrooms. These measurements need to be conducted using standardized instruments that produce quantifiable outcome data suing a pre-post test design (before and after inclusion) or as compared with a non-inclusive control group. Furthermore, because few studies have examined the perceptions of the principal stakeholders, the students in the

inclusive classroom, future inquiry should explore their impressions of both co-teaching and inclusion.

Four years ago, while conducting a similar study in northern New Jersey, this researcher noted that inclusion was gaining wide acceptance as a viable and institutionally endorsed model of instruction (Austin, 2001). Since then, inclusion has been embraced nationally as the recommended "least restrictive" trend in education, one that best reflects our democratic philosophy. Our future teachers and our students will invariably participate in some form of this model and, therefore, it is imperative that schools and teacher preparation programs espouse and incorporate the most effective research-based practices. To continue to give mere "lip service" to co-teaching and inclusive education is to imperil our students and disempower our teachers.
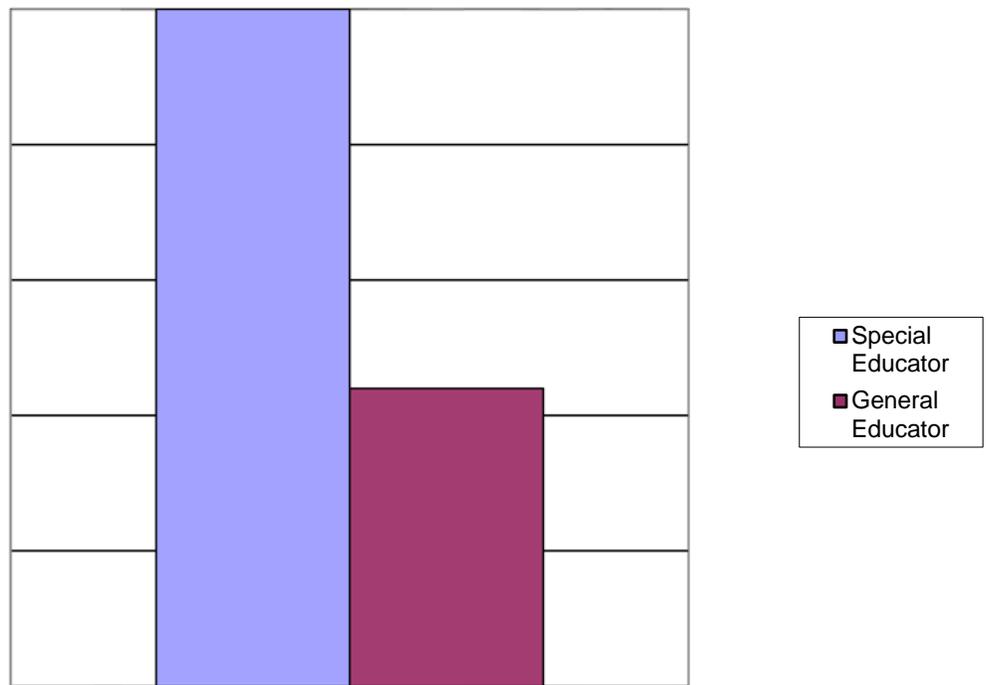
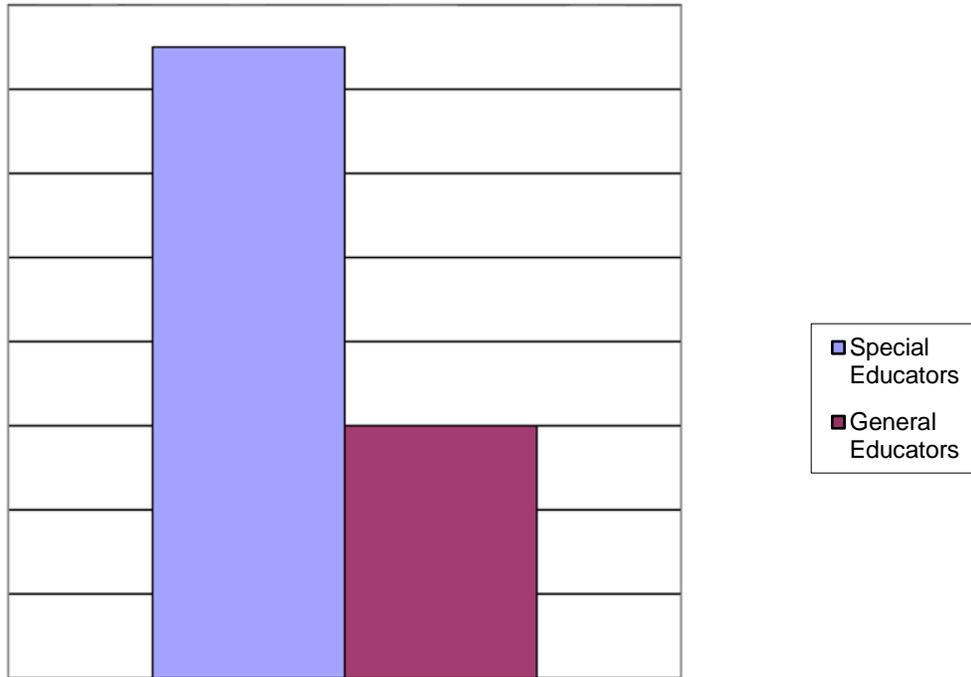**Figure 1:   Volunteered to Co-teach**
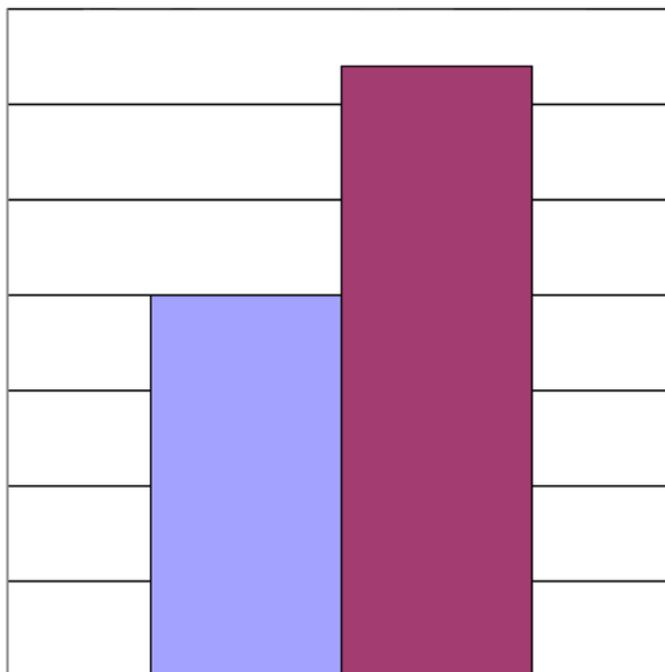
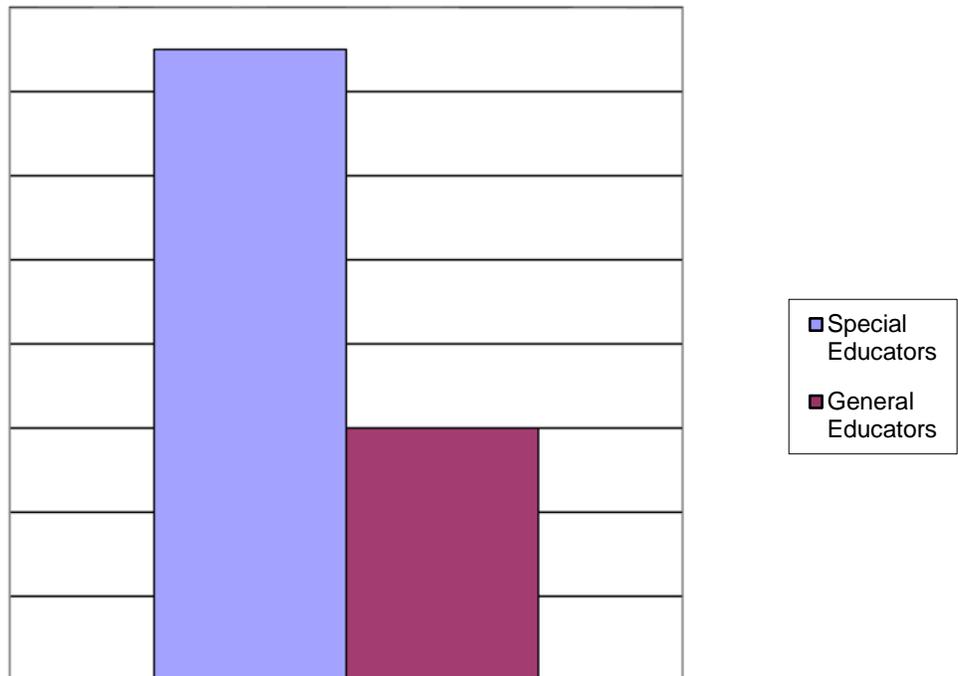**Figure 2: Co-teaching is a worthwhile professional experience**

- Special Educators
- General Educators
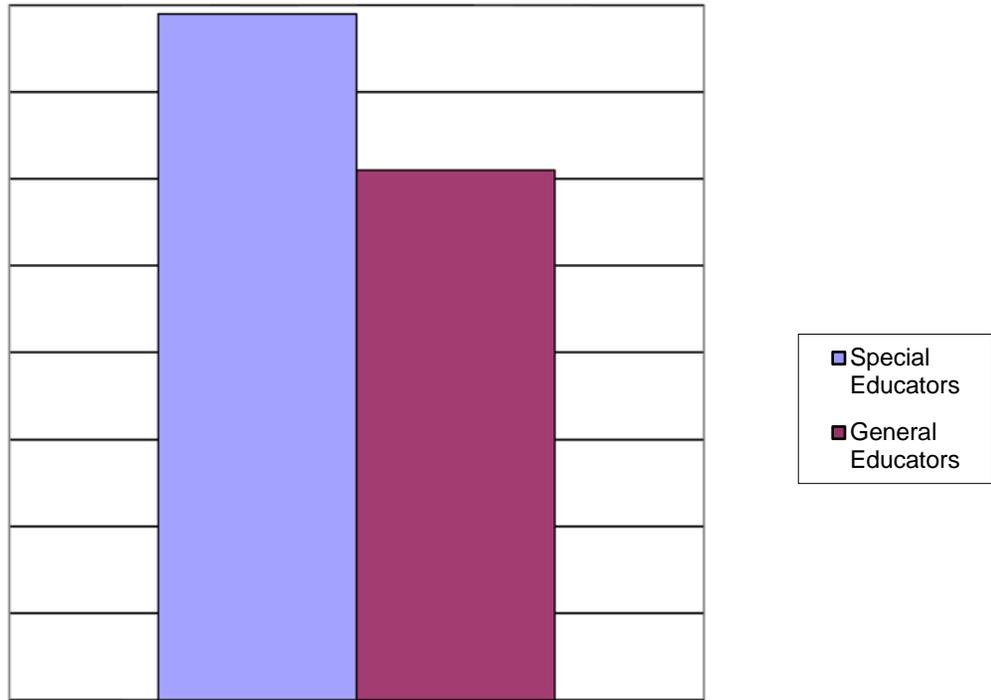
Figure 3:   Special Education courses useful for pre-service general education teachers

- Special Educator
- General Educator

Figure 4: In-service training valued

Figure 5:   Value freedom to modify classroom configuration

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