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An Evaluative Study of Inclusionary Practices in High-Poverty Elementary Schools and Their Effect on Student Achievement

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AN EVALUATIVE STUDY OF INCLUSIONARY PRACTICES IN HIGH-POVERTY ELEMENTARY SCHOOLS AND THEIR EFFECT ON STUDENT ACHIEVEMENT

DISSERTATION

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By

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ABSTRACT

In 1997, the reauthorization of the Individuals with Disabilities Education Act of 1990 (IDEA) mandated that all students with disabilities were to participate in statewide assessments (Inclusive Education Resource, 2003). Owing to this, there has been a recent increase in the number of schools that have opted for full-time inclusive classrooms over traditional resource programs. This concurrent mixed-model study investigated the extent to which inclusionary practices impacted the learning environment and academic achievement of inclusive students in high-poverty elementary schools. A total of 248 students in inclusionary classrooms in grades 3 through 5 were observed receiving instruction from eight co-teaching pairs of teachers. Sixteen co-teachers were interviewed. The achievement of inclusionary students was compared to a virtual control group of demographically similar students drawn from non-inclusionary settings. A 2 x 2 *ANOVA* was used to assess the impact of inclusion on students' achievement on the reading and mathematics subtests of the Florida Comprehensive Assessment Test, Norm Referenced Test (FCAT-NRT). Interviews and observations revealed that all co-teachers delivered instruction equally throughout the day and that teachers' beliefs about co-teaching, teaching roles, methodology, and strategies utilized were consistent with their belief systems and represented their philosophical points of view. In fourth grade mathematics, students in the treatment group experienced significantly less growth than the control group. The researcher suggests that this effect was most likely due to school-related implementation issues and therefore not a true effect of inclusion. Unanticipated findings were that an emphasis was placed on reading comprehension strategies delivered solely through FCAT practice materials. In general, no program effects were found.

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CHAPTER I: INTRODUCTION

Background of the Problem

In the past, providing students with disabilities equal access to education meant segregating them into special education programs specifically designed to meet their needs (Raines, 1996). Today, addressing diversity and meeting state-imposed curriculum standards within the traditional bureaucratic structure of America's public schools have often meant responding through the specialization of isolated programs within the schools. This has helped to contribute to the subtle but strongly separated track of informal special education (Imants, 2002). Various social scientists hypothesize that the isolation of specific individuals and the survival of others has occurred naturally and exists in order to maintain social equilibrium (Kincaid, 1995). Others note that deep structural changes such as changing demographics and socio-economic contexts have assisted in contributing to a second system of education (Wang & Reynolds, 1996).

During the last three decades, however, several distinct movements in education have begun to gain momentum whereby special education services are no longer viewed as a second system for educating children. Born out of the Regular Education Initiative (REI) , which proposes a unified system for managing educational resources (Wang, 1988), and the mainstreaming movement, which advocates that children with disabilities be educated with non-disabled peers to the maximum extent possible, inclusive education has emerged as a primary service delivery model for special education students nationwide (Marfo, Harris, & Dedrick, 2002). Nevertheless, much confusion remains about what is meant by inclusion in relationship to educational provisions (Ainscow, Farrell, Tweddle, & Malki, 1999). For some, the battle among the approaches to creating a least-restrictive environment is clearly related to how one views the right of every student to an appropriate education. In *Include me out: Critical readings of social*

exclusion, social inclusion, and lifelong learning, Edwards, Armstrong, and Miller (2001) argue that inclusion is positioned within a "philosophy of identity that denies difference" (p. 423). Further, Edwards et al. state that the "new discourses for inclusion do not seek to include existing identities, but choose to encourage excluded groups to revalue what had previously been denied" (p. 424). Still, others praise "wave after wave of legislative action affirmed at the right of all children – even those who are most difficult to teach – to an education that is inclusive and beneficial for each child" (Wang & Reynolds, 1996). Owing to this, there is a current overriding emphasis on establishing school learning environments that incorporate inclusionary placements and offer the most efficient and effective instructional arrangements for all students.

Statement of the Problem

In 1997, the reauthorization of the Individuals with Disabilities Education Act of 1990 (IDEA) mandated that all students with disabilities were to participate in statewide assessments (Inclusive Education Resource, 2003). In addition, the No Child Left Behind Act (2002) has mandated that schools and districts should be accountable for student learning. With these changes in mind, educational accountability and the direct funding of the schools has become directly linked to teacher incentives, academic achievement, and student promotion. As such, there has been a recent increase in the number of hearings regarding the placement of students with disabilities from restrictive environments into inclusive classrooms. Recent cases show that least restrictive environments must be determined on an individual basis. Pitasky (1998) cautions that as inclusion law matures, the least restricted environment should not be viewed as *one size fits all* theory. Least restrictive can refer to a range of placements along a continuum which has been detailed in the IDEA (1997, 1998). Inclusion by itself should not be viewed as an educational strategy for students with learning difficulties. Placement in a particular setting or service delivery program is not necessarily an intervention. An intervention is only as good as

how it is implemented (Ysseldyke & Christenson, 2002). King, Houston, and Middleton (2001) in their review of educational equity, question whether educational policy makers have the capacity to develop reforms that can allow schools to transcend past patterns of oppression and discrimination. King et al. ask: What conditions would need to exist for this to occur? How can we improve the school experiences of all students? What constitutes student learning? What skills do students need to have in the new millennium? Feiman-Nemser (2001) in her review of teacher preparation and life-long learning, states that the key to systemic reform is teacher training at the college level. Similarly, Garner (2000) describes four threats to the inclusion movement: (1) the lack of a precise definition, (2) internal exclusion within the schools, (3) the lack of research evidence concerning the effectiveness of inclusion, and (4) a continued pre-occupation with labels for children with learning difficulties. Garner cites the underlying cause as the failure of exceptional student education teaching programs to address these needs and suggests that courses bear little relation to what occurs within the schools. Suggested is that schools play a much larger role in course design and in establishing reciprocal relationships with local universities.

For Clark, Dyson, Millward, and Robson (1999), special education is an artifact of practices contained within bureaucratic structures. Students' difficulties in learning arise not out of the deficit within the students, but out of the schools' inappropriate responses to students. Bureaucracies can effect the development of more appropriate responses. The more teachers are expected to work individually, the less likely they are to develop flexible problem-solving strategies which enable them to respond to the diversity of learners in their classrooms. The inclusive argument is that all learners can be accommodated by creating structures within schools that enable teachers to work together in problem-solving teams.

The inclusive school would, therefore, be flexible in its internal structures and practices.

Recent organizational development theorists support the team concept in that they have reinterpreted older structural paradigms under which the *survival of the fittest* model operates to suggest that cooperation and mutual aid are the more common results of man's struggle for existence (Briggs & Peat, 1989). Inclusion cannot be effectively created through the dictate of state and national policy makers. The meaning of inclusion must be interpreted by the teachers within the schools as part of an overall cultural transformation (Clark, et al., 1999). It is then, and only then, that inclusion as a policy transformation will survive.

Purpose of the Study

The purpose of this concurrent mixed-model study was to determine the extent to which inclusionary practices impacted the learning environment and achievement scores of students in inclusionary classrooms in high-poverty elementary schools. Thus, this study was composed of two separate but complementary elements.

In the qualitative part of the study, philosophy, collaborative structures, and instructional delivery were explored using The Instructional Environment System-II (TIES-II) contained within the Functional Assessment of Academic Behavior (Ysseldyke & Christenson, 2002). Teacher interviews were guided through the use of an adaptation of the open-ended, TIES-II Extended Teacher Interview form (Ysseldyke & Christenson). Similarly, the TIES-II Observation Record was used to conduct classroom observations. School documents, available through public Internet access, were also analyzed.

The quantitative portion of the study examined the impact of inclusionary practices on the students' reading and mathematics scores on the 2003 and 2004 administrations of the Florida Comprehensive Assessment Test, Norm Referenced Test (FCAT-NRT). Assessment data for this study were obtained from archival computerized student records maintained by the Miami-Dade County Public Schools (M-DCPS). The achievement of the students in inclusionary

settings was compared to that of a demographically similar virtual control group drawn from non-inclusionary classrooms in high-poverty elementary schools throughout the district. Students were matched on variables thought by researchers (e.g., Borman, 2000; McLoyd, 1998) to have an impact on achievement: grade level, ethnicity, gender, limited English proficiency status, free and reduced lunch eligibility status, and primary exceptionality. For each treatment subject, a single matched control was drawn at random from among the multiple exact matches that resulted.

Rationale

There is considerable evidence that students in schools with high percentages of low-income students have multiple at-risk indicators (McLoyd, 1998). As of the 2001-02 school year, the last year for which data were available prior to the onset of this study, there were 215 elementary schools in the Miami-Dade County Public School (M-DCPS) system. Of those, there were 170 elementary schools with concentrations of poverty high enough to qualify for Title I funding (Levitt, Shay, Hanson, Naya, & Urdegar, 2003). Under Title I, students qualify for federal assistance based on their free and reduced lunch program status as measured by the federal poverty index. The eligibility threshold for Title I funding established by the M-DCPS was 68 percent for the 2003-04 school year. As a result, “high-poverty” schools in this study will be defined as those in which 68% or more of the students enrolled qualify for the free and reduced priced lunch program. Schools with high concentrations of poverty “tend to be those confronted with major educational challenges” (Levitt et al., p. 9). Student populations at Title I schools have higher proportions of students in categories associated with lower scores on standardized tests of academic achievement. Title I schools also have higher concentrations of African-American students, limited English proficient (LEP) students, Exceptional Student Education (ESE) students, and migrant status students. The prevalence of any one of these

characteristics in a set of schools has been associated with poorer academic performance (Levitt et al.).

During the 2001-02 school year, the last year for which data were available prior to the onset of this study, there were 9,000 elementary ESE students in the M-DCPS. Of those, 5,438 were enrolled in Title I schools. The lowest achieving groups of students in reading were in LEP and ESE categories. The ESE population is comprised of a variety of disabilities that may range from those that may have little impact on student achievement (e.g., speech disorders) to those that have a profound impact on many levels of learning (e.g., severe mental retardation). Student achievement outcomes measured by school grades indicate that improvement has occurred at high-poverty schools in the past four years (Levitt et al., 2003). If inclusionary strategies work in high-poverty settings where the environment is considerably more challenging, then these strategies may also be effective in higher socio-economic status (SES) populations.

Theoretical Framework

Some describe inclusion as a phenomenon rooted in the role that institutions play in order to promote capitalist interests. Kincaid (1996) postulates that all institutions exist in order to maintain social equilibrium and that particular practices exist because of their inherent functions. Others assert that inclusion is a philosophy of equality, organizational structure, and school reform.

In this study, the researcher hypothesizes that by removing negative influences associated with exclusionary practices, inclusive environments will produce better developmental and attitudinal outcomes for exceptional students. In the beneficial environment that results, access to core curriculum delivered through targeted collaborative practices will translate to improved achievement outcomes for exceptional students. Enhancement of instructional delivery through the simultaneous application of collaborative planning and reduced adult to student ratio will

benefit the achievement of regular education students as well. Therefore, combined groups of students situated in inclusionary settings are expected to experience improved academic outcomes when compared with other venues in which such beneficial arrangements are not present. This process is pictured in Figure 1 which shows how the philosophy of co-teachers interacts with the curricular framework to determine how students are managed and how instruction is delivered. The sum total of these variables constitutes the instructional environment.

Ahonen (2002) describes equality in education as a historically constructed social concept rooted in different phases of the development of the educational system. In the first phase, equality is referred to as a standard of a nation. In the next phase it is referred to as a free individual opportunity. Presently, equality can be linked to one's political persuasion with the market ideology defining equality as individual opportunity. Current educational reform in America focuses upon equal educational opportunity, which has led to a highly inclusive educational system, and in other camps, individual opportunity, which has led to the privatization of the public schools and school choice. In the former view, equality is the tenet of the national economy with education being defined as a human capital producer. Through this use of a market model of business terminology, Ahonen (2002) refers to education as a product, teachers as accountable producers, and parents as customers. Hence, today American schools compete for students, are measured through the ultimate end result, student achievement, and have become an educational market instead of an institution in its own right.

In a review of the literature that follows, an historical overview of social exclusion theories is included in the introductory statements to the chapter. A framework for how inclusionary models of instruction are currently being implemented is described through an extensive review of empirical research on the attitudes and perceptions of inclusionary and

regular education teachers, current inclusionary practices such as collaborative teams, school reform, and student achievement.

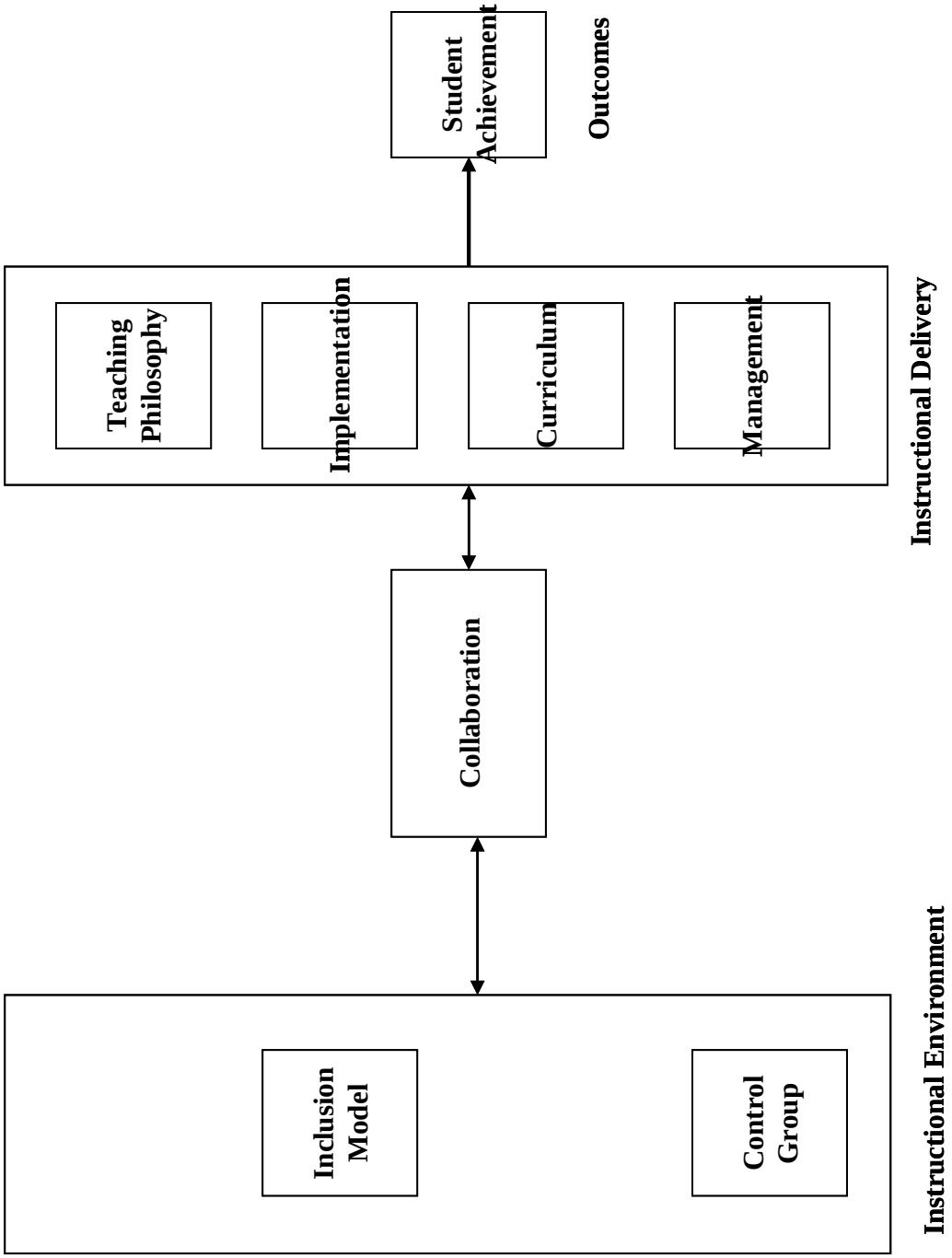

Figure 1.

Theoretical Framework

Oelkers (2002) reminds us in a review of Rousseau's Émile that there is not one theory of educational practice, not a one size fits all concept, or a new or better argument for one educational theory over another. Teaching is but a "client instructional interaction" (White, 1995) and modern education but a series of images that can only be captured, imprinted, and questioned for future posterity.

Research Questions

The two primary questions addressed by this study were: To what extent, if any, do inclusionary practices impact the learning environment of students in high-poverty elementary schools? And, to what extent, if any, do inclusionary practices impact the academic achievement of inclusionary students in high-poverty elementary schools? In the qualitative portion of the study the first question subsumed several related questions:

1. What is the philosophy of co-teachers working in inclusionary classrooms?
2. How is collaboration implemented in inclusionary classrooms?
3. Which methods of instructional delivery are the most prominent in inclusionary classrooms?

The quantitative portion of the study examined the second primary research question.

4. How do the norm-referenced reading and mathematics scores of students in inclusionary settings in high-poverty schools compare with their counterparts in non-inclusive settings?

Research Hypothesis

H_0: Inclusionary practices will have no effect on academic achievement as measured by the FCAT scores of students in inclusive classrooms in high-poverty elementary schools relative to those of a control group of demographically comparable students in non-inclusive classrooms.

H_1: Inclusionary practices will have a positive effect on academic achievement as

measured by the FCAT scores of students in inclusive classrooms in high-poverty elementary schools relative to those of a control group of demographically comparable students in non-inclusive classrooms.

Scope and Delimitations of the Study

This study was confined to high-poverty elementary schools. This study was situated in the Miami-Dade County Public Schools (M-DCPS), a large, centralized district in Florida comprised of urban, suburban, and rural areas. The teacher and student populations were overwhelmingly comprised of ethnic minorities. As such, the results of this study may not be generalizable to districts with disparate administrative structures or demographic compositions. Further, the inclusionary classrooms in the M-DCPS are limited to full time co-teaching models of instruction. Research indicates that there is a preponderance of consultative inclusionary models whereby exceptional education teachers monitor students' progress on a weekly or monthly basis versus daily collaboration inside students' classrooms. The researcher was only able to evaluate co-teaching inclusionary models. Finally, in an era when the major thrust of education policy reform calls for the rethinking of teaching practices, in addition to the format of the inclusive teaching model, the selection of a particular reading program over another predetermined the underlying philosophy of the teachers and to an extent, dictated the program delivery.

Definition of Terms

1. *Co-teaching*: "a structural process in which two teachers share a common direction and a sense of community in order to provide classroom instruction more efficiently and reduce student teacher ratio. Planning, leadership, and classroom management; are shared equally by the co-teaching team" (Office of Exceptional Student Education, 2002, p. 3).

2. *Comer*: a philosophy of school reform which provides a format and structure for schools to support student development and learning through the development of desirable social conditions such as collaboration, consensus building, and no-fault problem solving (www.schooldevelopmentprogram.org).

3. *Collaborative teaming*: a team comprised of "a group of individuals with diverse expertise who work together to achieve mutually defined goals" (Hunt, Soto, Maier, Muller, & Goetz, 2002, p. 2), and who share problem solving (Imants, 2002).

4. *Consultant model*: a model in which the ESE teacher serves as a consultant to the general education teacher in areas pertaining to curriculum adaptation (Anstin, 2001).

5. *Inclusion*: "a movement to merge special and regular education" (Chapman, 2001, ¶ 3). Inclusion has also been described as the instruction of all students with and without disabilities fulltime in the general education classroom and assumes no segregation for any purposes. There is no one agreed-upon definition.

6. *Norm-referenced test*: aligned on a continuous scale across grades, and scaled to a nationally representative sample of test-takers; a test which is specifically designed to facilitate comparisons among individuals (Florida Department of Education, 2003).

7. *Virtual Control Group*: A non-intact matched reference sample comprised of subjects drawn at random from the same population as a quasi-experimental treatment group (Shay, 2000).

Significance of the Study

Zigmond (2001) notes that much of the research on inclusionary practices in the United States has not been generalizable to the population at large and that few studies in the United States have linked classroom practices to student achievement scores. Zigmond also distinguishes that research on specific aspects of the inclusionary model such as co-teaching has

been limited exclusively to elementary school settings and that the bulk of the recent research literature, 40 such articles reviewed by Welch, Brownell, and Sheridan (1999), contain little empirical data. Hence, studies on inclusionary practices have been mostly descriptive in nature. Presently, ESE students are being held to high-stakes testing guidelines. Owing to this, in February of 2003, the U.S. Department of Education stated that it was considering discontinuing funding to purely qualitative projects (Inclusive Education Resource, 2003).

Despite the dearth of clinical research data, a plethora of descriptive information exists about what inclusionary practices are supposed to look like. Thus, inclusionary models remain a work in progress. As Clark, Dyson, and Millward (1999) observe, "One of the most complex problems facing education today is the development of structures and practices that address diversity of student populations" (p. 324).

Summary

This chapter has provided a brief overview of the status of the inclusionary movement in the United States and established a rationale for the need for the present study. It has also examined the extent to which inclusionary practices have impacted the learning environment and academic achievement of inclusionary students in high-poverty elementary schools. In the ensuing chapter, an historical review of the inclusion movement in the United States is presented in concert with the federal laws that have propelled it. Next, teachers' attitudes and perceptions about inclusionary students, collaborative work teams, effective inclusionary teaching practices, inclusionary school reforms, and student achievement are reviewed to ascertain the status of their implementation. Finally, a brief review of related studies that have utilized the TIES-II instrument and studies conducted by Ysseldyke and Christenson (2002), the authors of the TIES-II, is given. A review of research on children and poverty follows.

CHAPTER II: REVIEW OF THE LITERATURE

Introduction

In order to provide a foundation for inclusionary practices in exceptional student education, the first section in this chapter examines the concept of inclusion and exclusion as perpetuated on specific groups within the society at large. A brief focus on landmark legislation and judicial cases that have driven the inclusionary movement proceeds. Empirical studies that focus upon the attitudes and perceptions of inclusionary teachers, collaborative work-teams, specific classroom practices, reform efforts, and student achievement are reviewed. Finally, related studies, which have used The Instructional Environment System-II (TIES-II) to measure exceptional students in mainstreamed settings, are surveyed. A discussion on high-poverty schools has also been included.

Social Exclusion Theories

The modern concept of social exclusion is a broad construct that encompasses a wide variety of policy concerns and offers a greater inclusiveness of isolation than concepts of poverty or deprivation based solely on material assets (Milbourne, 2002). Historically the concept of social inclusion has been referred to within the context of governments, the distribution of resources, and in terms of social stratification. Valentine, Holloway, and Bingham (2002) attribute social exclusion to misallocation of government resources. “Groups and individuals become isolated [by], and prevented from participating in society in ways that other people take for granted” (Milbourne, 2002, p. 287). The common link between these groups has included low income, lack of employment, poor skills, low self-esteem, sub-par health and housing, high-crime environments, family breakdown, and mental illness. Conversely, in the case of newly assimilated immigrants, the link may be depletion of resources that has taken place suddenly and under traumatic circumstances. These linkages have been attributed by some to social

stratification and described exclusively in socio-economic terms divided into three philosophical tenets as follows: functionalism, Weberism, and Marxism. In a functionalist society, inequalities between work groups are viewed as a competitive force with opportunities to advance through the hierarchical ladder to reach various positions. The relationship between system integration and social integration is seen as principally unproblematic. Whereas, Weberism holds that a concept of power permits some groups to obtain social and material services at the expense of others. Similarly, in Marxist societies the institution of property and production via exploitation and production are viewed as crucial to generating inequalities and class divisions (Anderson, 1999; Sowell, 1987).

Dyson (2001) describes social inclusion as a principle that seeks to build a cohesive society by ensuring that:

> No social groups become alienated from the mainstream . . . . This in turn means equipping potentially marginalized groups with the capacity to become active citizens and, crucially, with the skills they will need to survive in an increasingly competitive and skills-hungry job market. The social inclusion agenda therefore is linked to the wider standards agenda through which the government ultimately seeks to create a highly skilled workforce capable of maintaining a high tech economy. (p. 27)

Social inclusion, at the school level, seeks to provide the skills necessary to survive in an increasingly competitive job market. It is not about individual programming and cultural change within institutions, but ensuring that everyone has a minimum level of competency. For Dyson (2001), social inclusion opens up possibilities for addressing educational disadvantages that have been overlooked by exceptional student education and the inclusion agenda.

In their book, *Schools and Special Needs: Issues of Innovation and Inclusion,* Dyson and Millward (2000) offer a different view on what it is to be *included*. Described are schools in high poverty areas which the authors believe to be promoting social inclusion through alternative curricula; educational provisions, which exist, at times, outside of the schools; an unrelenting

focus on basic skills; a zero tolerance policy toward disruptive behavior; and, an overall desire to raise standards among even the lowest achievers. Suggested is that inclusive schools are not merely concerned with the participation of students with *special educational needs*, but aim to ensure that all students acquire the skills needed to survive in a competitive market and become equal stakeholders in a common social institution. The focus is on changing groups rather than targeting individuals. Whether or not inclusion is understood in the field of exceptional student education is inconsequential (Dyson, 2001). Further, Edwards, Armstrong, and Miller (2001) note, that there can be no social inclusion unless there is also social exclusion.

Exclusion of Exceptional Students

In the past, providing students with disabilities equal access to education has often meant exclusion from the regular education curriculum and segregation into special education programs (Raines, 1996). This has helped to contribute to a parallel or separate system of education (Marfo, Harris, & Dedrick, 2002). In his study of inclusive practices and school reform, Kugelmass (2000) connects the original exclusion of students to John Dewey who stated that exclusion is, at times, the only available means when educating students through the use of a progressive curriculum originally designed to support middle and upper class ideologies. Despite the re-enactment of public laws that have established that every child with a disability will receive a "free, appropriate, public education that emphasizes special education and related services designed to meet their unique needs" (Zigmond, 2001, p. 70), emphasis has recently shifted from access to special education to general education. The Individuals with Disabilities Education Act of 1997 (IDEA), a reauthorization of the Education for All Handicapped Children Act of 1975, states that children with disabilities must be provided a free and appropriate public education in the least restrictive environment possible and to the maximum extent feasible with their non-disabled peers. According to the IDEA, students can only be placed in separate classes

or facilities when the nature of the disability is such that education in regular education classes cannot be achieved (McCarthy, 1994). Clearly, “the battle among the approaches to creating a least-restrictive environment is . . . related to how one views the right of every student to an appropriate education” (Raines, 1996, p. 6). Katsiyannis & Conderman (1995) in *State Practices on Inclusion* trace the roots of the inclusion movement to Dunn (1968) who was among the first to question whether special education for the mildly retarded was justifiable.

Prior to 1990, many courts ruled in favor of schools that argued that more restrictive placements were necessary in order to meet students’ needs appropriately. According to McCarthy (1994), placements involving hearing-impaired students have generated the largest number of cases where courts have supported this argument. In addition, several courts have also ruled that the least restrictive environment does not require that school districts place students with disabilities in their neighborhood schools. Segregated facilities have also been deemed justified when considering whether special students would be disruptive in the regular classroom and further in assessing cost benefit tradeoffs.

Consequently, in 1989 the Fifth Circuit Court of Appeals added a caveat to the established standard for educating students in the least restrictive environment which states that it must be determined whether a child can be educated in the general education classroom with supplementary aids and services. If not, segregated special education may be provided, but the student must be mainstreamed to the maximum extent possible. The following factors should be taken into consideration when making this determination: (1) the student’s ability to grasp regular education curriculum, (2) nonacademic benefits such as social interaction and language models, and (3) the effect of the student on the general education program and other students. In 1991, courts expanded upon these factors to include the costs of an inclusionary program. The courts presently use this four-part test to determine whether a child can best be served through a

general education setting (McCarthy, 1994). Several cases requiring the inclusion of students with high-incident disabilities such as Down syndrome and mental retardation have tipped the scales in favor of inclusion. An example of this trend occurred in 1994 when a California school district proposed a segregated placement for a moderately retarded child. Her parents decided to enroll her in a private school where she attended kindergarten through second grade in regular classes. In assessing whether the student had made substantial progress in the regular classroom, the courts found in favor of the child, and in applying the four-part test, determined there would be no additional costs to educate the student in the regular classroom, nor would her presence negatively impact the regular education program.

With regard to full inclusion initiates, researchers, educators, and legislators have stated that present practices in exceptional student education are morally and educationally wrong. Whereas, the IDEA amendments reinforce full inclusion of high incidence disabilities, several Exceptional Education organizations now endorse the full inclusion of students with mild disabilities noting that socialization and friendships are among the primary educational goals that would enable students to become active members of society. States Raines (1996), “The profession would do well to listen to the people most affected by these education policies” (p. 8).

Owing to an increase in such sentiments and the decision of several state legislators to mandate that exceptional students be educated through mainstream classrooms more than 80 percent of the school day, there has been a proliferation of studies about inclusionary practices. These studies have not only focused upon the attitudes of parents, teachers, and students toward inclusionary practices such as the co-teaching model of instruction, but upon which approaches are most effective for children with disabilities of varying severity.

Empirical Studies

Teachers' Attitudes toward Inclusion and Co-teaching

Given the rising importance that inclusion has assumed, in the 1990s, among education constituents, a recent number of studies have focused on the attitudes of general and special educators with respect to the adaptations and interventions used in teaching students in heterogeneous classrooms, the most unique of which is co-teaching.

In his study of the beliefs about co-teaching, Austin (2001) examined the perceptions of co-teachers, effective teaching practices, teacher preparation, school-based supports, student perceptions, and workload. In Austin's study, elements that affected the co-teaching model were gathered through the use of an instrument, which he developed, called the Perceptions of Co-teaching Survey. Part I of the instrument queries demographic information. Part II canvasses information based on four specific categories relevant to teacher perceptions of collaboration. The categories developed by Austin (2001) are based upon the work of Herbert's (1998) Collaborative Team Assessment Inventory; Bixler's (1998) Perceptions of Co-Teachers; Lackaye's (1997) Survey of Barriers to Collaboration; Olson, Chalmers, and Hoover's (1997) Attitudes and Attributes of Effective Inclusionists; Grant's (1994) Elements for Successful Collaboration; and, Wilczeaski's (1995) Scale to Measure Attitudes Toward Inclusive Education. Four basic categories developed from the work were: (1) Co-teacher Perceptions of Current Experiences, (2) Recommended Collaborative Practices, (3) Teacher Preparation for Collaborative Teaching, and (4) School-Based Supports, that Facilitate Collaborative Teaching. Finally, after a pilot study and modifications to the instrument, Austin (2001) surveyed 139 K – 12 teaching teams from nine middle income school districts in New Jersey. Four specific categories relevant to teacher perceptions of collaboration were examined. These categories were (1) barriers to collaboration, (2) attitudes and attributes of general education teachers identified

as effective inclusionists, (3) essential elements for successful collaboration, and (4) an analysis of general and special education roles.

Results showed that a large percentage of the respondents considered co-teaching to be worthwhile even though the majority had not volunteered for the experience. In the area of roles, both special and general education co-teachers agreed that general education co-teachers do more than their special education partners in the inclusive classroom. In categories such as recommended collaborative practices and teacher preparation, results suggest that some co-teachers may not have access to many of the recommended practices, preparations, and school-based supports as other teachers. Another conclusion based on the findings was that special education co-teachers might consider pre-service courses and training in collaborative teaching to be significantly more useful in facilitating collaborative teaching than do general education teachers. Lastly, the majority of co-teachers interviewed stated that they believed that co-teaching contributed positively to the academic development of all of their students; however, teachers did not make gradebooks or portfolios available to the researcher to confirm this perception. The majority of co-teachers interviewed believed that inclusion contributed positively to the social development of their students. Yet, there were notable exceptions. When students with disabilities are included for the sole purpose of social integration and are not capable of achieving academic goals, this only serves to accentuate their difference from other students and therefore negatively impacts their social development. Another concern of some co-teachers was the potentially harmful effect of students with disabilities on the social and academic performance of students without disabilities. Some teachers stated that they had observed some students without disabilities emulating the undesirable behaviors of some students with disabilities. Additionally, several other teachers noted this undesirable effect on the learning environment.

Austin (2001) suggests possible improvements in practice and areas for future research: (1) offer feedback to one's partner, (2) share in classroom management, (3) provide daily planning time, (4) use cooperative learning techniques, (5) identify these practices for future preservice and in-service programs, (6) incorporate practices in the planning stage of inclusive programs, (7) organize the curriculum in teacher preparation programs toward current trends in inclusive education, and (8) solicit the support of the school administration in order for collaborative teaching to be effective. In conclusion, Austin advises that further research is needed in the investigation of the effectiveness of collaborative teaching in facilitating the academic development of students with and without disabilities.

Similarly, Marfo, Harris, and Dedrick (2002) conducted several studies that utilized the co-teaching model as a primary service-delivery system. Investigated were teacher beliefs and practices about inclusive education and program integrity and implementation. Variables outside of the core program characteristics and variables most productively associated with anticipated outcomes were also investigated within the context of a larger study which examined aspects of the system-wide inclusive education initiative. Objects of the project at large also included documenting the experiences and instructional practices of beginning co-teachers, identifying exemplary co-teaching practices, examining factors associated with successful implementation, and evaluating the impact of co-teaching on students and teachers. Early studies in the project involved piloting four experimental variations of a scale called the Beliefs-Perceptions about Inclusive Education Scale (B-PIES), developed by the researchers. These were distributed to 948 teachers within one school district. One form consisted of 16 items pertaining to students with mild and severe disabilities. A second form consisted of eight items referring to students with mild disabilities, a third form consisted of eight items referring to students with severe

disabilities, and a fourth form consisted of eight items using a generic label of mild or severe. Four-hundred and three responses were received.

The key findings were that teachers responding to items pertaining to both mild and severe disabilities were more supportive of inclusive education for students with mild disabilities. Across groups teachers were more supportive of inclusive education for students with a mild disability and for students with a non-differentiated disability label. Overall, teachers responding to a mild disability label showed stronger support for inclusion than those responding to a generic disability label.

In a second study conducted by Marfo et al. (2002), the responses of 77 teachers regarding the complete 38-item B-PIES were analyzed in relation to six thematic sub-scale scores and an overall pro-inclusion index. Then, differences on the various B-PIES scores were examined for sub groups of teachers based on their core belief about inclusion, experience, and training. Core belief about inclusion was measured with one item that required respondents to select from four options the statement that came closest to describing their core belief about inclusive education. Identified groups were (1) those who would keep all children in the general education classroom but also provide instruction in other settings as needed, (2) those who favored a full continuum model, and (3) those who would limit inclusion only to students with disabilities. In the attitudes and perceptions of co-teachers in an inclusive model piece, assumptions guiding the research of Marfo et al. (2002) were that educators are preoccupied with outcomes and do not attend to program delivery. In addition, Marfo et al. expressed that they felt that the impact of programs is often hampered by outside variables.

In *Empirical Perspectives on Inclusive Education and Co-teaching*, beliefs and perceptions about inclusive education are situated in several on-going research paradigms that represent a larger body of on-going research funded by the U.S. Department of Education. Marfo

et al. (2002) provide a valuable review of one of the more dominant inclusive models, co-teaching. A work-in-progress, results for the beliefs and perceptions section have been reviewed. The more interesting findings from this research were in Pinellas County, Florida where experienced teachers surveyed throughout K – 12 schools were perceived as significantly less supportive of inclusion, were less positive about the appropriateness of inclusive education placement for students with special needs, and were significantly less supportive of inclusion than less experienced teachers.

With regard to training, and in contrast to previous studies, general education teachers' support for inclusion was perceived as stronger than that of special education teachers and other educational professionals. Special education teachers, however, perceived more positive outcomes due to the placement of students with disabilities in general education classrooms than general education teachers. Overall, special education teachers were more likely to favor inclusive education than general education teachers.

In reporting how teachers share roles, special education teachers were reported as being solely responsible for attainment of Individual Education Plan (IEP) goals and objectives, review of IEPs, communicating with families of exceptional education students, and modifying curriculum. Whereas, general education teachers were reported as communicating with families of general education students, designing the physical management of the room, and grading and monitoring general education students. Marfo et al. (2002) suggest direct observations of co-teachers in action in the inclusive classroom as the best way to assess the integrity of program implementation and to gauge the degree to which the co-teaching paradigm is said to be a viable model for delivering appropriate education.

In citing Larrivee (1982) and Stewart (1983), Henning and Mitchell (2002) state that, quantitative research suggests that, teachers' perceptions about ESE students may be the factor

with the greatest effect on student success. Owing to this, researchers such as Henning and Mitchell (2002) developed a program of study in order to improve the attitudes of pre-service teachers toward inclusionary practices.

In *Preparing for Inclusion,* Henning and Mitchell (2002) describe the collaborative program of study between pre-service elementary education teachers participating in a social studies methods course and graduate Exceptional Student Education (ESE) majors developed by the authors. Objectives were to improve the attitudes of elementary majors toward inclusion and to create experiences for pre-service teachers.

Initially, 29 elementary education students' written reflections on prior experiences with special education and their beliefs about teaching children with disabilities were analyzed for common themes and concerns. In the second semester of the project 29 different students were asked to respond to a survey with a Likert scale to determine their attitudes and understanding about teaching students with disabilities. The initial survey at the mark of the second semester enabled the researchers and the teachers to focus on helping pre-service teachers to learn how to adapt social studies lessons for students with disabilities. Several simulations and activities were provided for students. At the end of the second semester, students responded to another survey. A *t* test was used to test for significant changes in attitude. For example, after completing the simulation, 93.1 percent of the students reported knowledge of how to adapt social studies lessons. Attitudes before, during, and after experiencing a simulated inclusion model were measured.

Additional goals of Henning and Mitchell (2002) were to document how regular elementary majors benefit from learning specific strategies to adapt social studies lessons for learners with special needs. Questioned was whether pre-service general education and special education teachers would be better prepared to co-teach in an inclusionary environment.

The model used by Henning and Mitchell (2002) for teacher preparation for inclusion included three parts: appraisal, adaptations, and allies. First, attitudes students held about inclusion were evaluated through writing prompts. Responses ranged from a lack of experience with inclusion to the fear that pre-service teachers would not be able to manage exceptional students by themselves. Next, students were taught how to make modifications to social studies lessons to accommodate special students through a series of simulations and activities whereby teachers become special needs students. Finally, seniors in an elementary social studies methods course brought social studies lesson plan ideas to collaborative meetings with Master's level majors in ESE. Video and field notes recorded the process of teaching regular and special education majors to cooperatively plan. Overall, difficulties were attending meetings due to location, and special education and elementary education having, at times, competing agendas. Both groups complained of excessive workload and time constraints. Results of a qualitative data analysis suggest that pre-service teachers exposed to the inclusion model experienced improved feelings of effective teaching. Also, reported was that the disability simulation activities and adaptations of lesson plans were most helpful. Recommended is that instructors of special education and elementary education methods courses model collaboration and make efforts to co-plan and co-teach at the pre-service level.

Teachers' Perceptions about Students with Disabilities

Conversely, Stough and Palmer (2003) examined how *expert* special education teachers process information about students with disabilities. First, nineteen expert special education teachers from five different urban, midsize, and rural school districts were solicited based upon nominations by the teachers' peers and community. These teachers represented diverse instructional settings from self-contained ESE classrooms to inclusive models of instruction. Teachers also represented a broad spectrum of students with disabilities. Collectively the 19

participants in the study instructed 302 students, 158 of whom were receiving special services. Data were collected through interviews, direct observation, and videotapes whereby participants were asked to view and identify events that might elicit reflections about their teaching behaviors. Teachers were interviewed using a standardized series of questions about their classroom experiences and teaching philosophy. Observations were made in conjunction with videotaped sessions. After each video taping, a simulated recall procedure used by Erickson & Simon (1984) took place. The central phenomenon revealed in the study was teacher concern about student performance. These concerns encompassed four areas: (1) student academic behavior and how to provide instructional supports, (2) student behavior and intervention, (3) how to increase student independence, and (4) concern about the emotional well being of students. The intervening condition was teacher knowledge. Teacher knowledge included two broad categories that teachers reflected about the most: student characteristics and educational practices. Teaching strategies were not particularly remarkable; however, the most frequent categories of strategies used were instructional, classroom management, and behavioral. Outcomes represented another category identified by the researcher: the effect of classroom instruction and interventions upon student outcomes and teachers' responses to these outcomes.

Stough and Palmer (2003) found that special educators are required to address the challenging learning and behavioral needs of individual students in addition to management. In their study, Stough and Palmer noted that the nature of special educators' thinking is complex and interactive, but tends to focus on the needs of the individual learner. Their findings suggest that teacher training programs should focus on modifying how special educators think about instruction as well as what interventions they implement. In addition, Stough and Palmer found that the recall technique used in the study was invaluable to reflective teaching and believe that this technique could be useful for student teachers.

Collaborative Teams.

Little research has been conducted to examine the application of a collaborative teaming process and its effect on the social and academic participation of students with severe disabilities. Hunt, Soto, Maier, Muller, and Goetz (2002) examined the effects of the collaborative teaming process on the level of classroom engagement, social interactions, and academic participation of students with alternative communication needs in general education classrooms. Conducted at two elementary schools located in two diverse school districts in the San Francisco Bay area, researchers observed three students with severe speech impairments and three collaborative teams within their classrooms. Also, observed were three students without speech impairments. The purpose of the study was to examine the effectiveness of a collaborative investigation based on recommendations for best practices for collaborative teaming in inclusive classrooms outlined in current literature. The model of team collaboration was evaluated through multiple data sources that included a systematic observation of the levels of engagement of students and team interviews to elicit team perspectives on students' academic growth and participation. Three team interviews were conducted one week before the implementation of the intervention, a Unified Plan of Support (UPS), and at the end of the study. An Interaction and Engagement Scale (IES) was developed by the researchers to measure interaction and engagement variables. The IES uses a partial interval recording procedure in which each ten- minute observation period consists of seconds for observations and minutes for recording. All IES observers had previous experience with in-class data collection. Four observers reviewed the IES for inter-rater reliability. Inter-rater reliability was 90 percent or higher for each variable. Data from IES observations were recorded and analyzed to address the hypothesis. Each student was observed once a week from September through March during a two-hour session. Observations included mainstream students, as well.

Reliability was established through an agreement between an independent observer and a primary data collector by dividing the number of agreements on the occurrence of the variable during each observational interval by the total number of agreements and disagreements multiplied by 100. The mean percentage of inter-observer agreement on the presence of the interaction and engagement variables targeted by the IES was then calculated through computing the range of each variable. Examples of variables include level of engagement, student grouping patterns, and communicative function. Team members' perceptions of changes in the social behaviors and academic progress of the three focus students were assessed through open-ended interviews conducted three times during the course of the study, one week before implementation, one month after, and at the end of the study. During interviews team members were asked how a specific student was doing in order to assess academic progress. Responses were audiotaped and transcribed verbatim for later analysis. A group interview was then conducted at the end of the study to evaluate the extent to which the collaborative teaming process fit into school culture and was useful to the community. Analysis of data from group interviews conducted at the end of the study generated themes that were grouped into two categories: benefits and recommendations for changes in the UPS process.

Six common themes emerged during the data analysis of the team interviews: (1) academic growth, (2) provision of a support network, (3) possibilities for inclusion, (4) development of a cohesive plan of academic and social supports, (5) the ability to refine plans, and (6) development of academic and social objectives. Rating scales were developed by the researcher and outcome variables measured through systematic observations of the students and team interviews.

Teams consisted of five core members: a general education teacher, an inclusion support teacher, an instructional assistant, a speech-language pathologist, and one of the student's

parents. Teams met systematically once a month, for 1.5 hours, to develop and continue to refine support plans. Supports included modified instructional content, modified teaching methods, communication supports such as choice of output devices and attention bells to signal the desire to answer questions, and social supports such as small group instruction and learning centers. Adaptations were modified each month to support students' full participation in academic activities.

Hypothesized was that as a result of a monthly meeting there would be increases in interactions with peers, decreases in the levels of non-engagement in ongoing classroom activities, increases in asking questions and making comments, and increases in the use of the assisted communication device over time. Results provided information about the effects of a collaborative teaming process on the level of engagement in the social and academic participation of students with communication disorders.

Further, Hunt et al. (2002) validate that collaborative teaming at the elementary level requires adequate planning time and financial resources with which to support inclusion practices. Outlined are a number of strategies for increasing collaborative planning time. These are: (1) having support staff teach one period per day to allow teachers to attend meetings, (2) having a floating substitute teacher fill in during planning days, and/or (3) altering the length of the school day once each week (through the use of a district waiver) to provide collaboration time without students.

Overall, work groups or teams are being introduced in educational settings to deal with increased enrollments, large class sizes, and the development of teaching using new technologies. In Benjamin (2000), a cross-case study of teaching teams from varying disciplines at three Australian universities is presented. Using a phenomenographic methodology, Benjamin sought to understand teaching and learning in an educational context, and to provide a deeper

knowledge about the scholarship of teaching, which Benjamin describes as simply knowing a lot, to knowing and relating the structure of knowledge within a discipline, to investigating one's own teaching practice, to communicating insights about teaching and learning to peers.

In Benjamin's study this model serves to explore the characteristics of an effective teaching team and to review key aspects of collaborative practices such as sharing new ideas, critiquing ideas, and accepting feedback, criticism, and cooperation. Five teaching teams from medicine, law, economics, psychology, and biology at a university in Melbourne, Australia were studied. Data were generated through interviews with three members of each team, two lecturers, and the subject coordinator. Data were then used to explore the teaching practices of the teams in order to determine the extent to which the characteristics of the scholarship of teaching were present in their work. Semi-structured interviews were conducted with individual team members. Interviews were then considered in relation to the group and how the group worked, what it did, and how interviews reflected the scholarship of teaching. Data were presented through a series of vignettes of teaching practices based on the interview material. The vignettes were then measured against the model and key aspects of collaborations.

Explored was how working in teaching teams influences the scholarship of teaching. Benjamin describes four dimensions of the scholarship of teaching. The first dimension is being informed about the literature of teaching and learning; the second dimension is focusing on student learning and teaching; the third dimension is to reflect on the literature of one's own practice; and finally, to communicate what is known and practiced.

Teaching teams interviewed by Benjamin (2000) fit the scholarship of the teaching model at varying levels. Teams engaged in the least scholarship of teaching were described as viewing team teaching as a way to share a workload, with no reflection on their teaching work. Also, meetings were described as *laissez-faire* and informal owing to the fact that all offices were on

one floor. Teams operating at this level considered what skills the teacher might develop rather than what experiences the student might undertake to learn. Conversely, teachers operating on the other end of the continuum engaged with the literature in the teaching area of their discipline; planned what was taught, and how it would be taught as a team, keeping the literature on teaching in mind. Team members reflected on how their teaching, individually, and collectively affected student learning, and members reported on this to local academic colleagues and national conferences. According to Benjamin, an academic team is formed in order to provide a diversity of ideas on the teaching process. In summary, Achinstein (2002) reminds us that collaboration can be a vehicle to fostering teacher community, reducing isolation, improving teacher practices and student learning, and building school vision.

School Reforms and Inclusionary Practices

Across states, as reported in school-wide restructuring practices, there has been an acceleration of activity related to inclusionary practices evidenced through varying definitions, practices, the amount of financial support for district level innovations, current compliance monitoring, and evaluation practices.

In a four-year ethnographic study of a progressive elementary school in New York, Kugelmass (2001) follows the evolution of school reforms, state standards, and accountability systems. For Kugelmass, his research is most accurately described through an ethnographic interpretative fashion with a triangulation of multiple sources of data and prolonged engagement at the school. Originally interested in studying how teachers address diversity among students, Kugelmass' grounded theory of diversity is one which evolved into a statement about the philosophical underpinnings of a high-poverty school that has supported inclusionary practices for over a decade. Kugelmass' (2001) observations include descriptions of a social-constructionist curriculum design, the elimination of role boundaries among staff members, and a

school-wide commitment to the development of a learning community. Observed is a reoccurring theme of informal collaboration and structures which defy bureaucratic practices and structures that attend to the emotional and intellectual needs of both adults and children. One example of this is that children were grouped with consideration given to the race, ethnicity, religion, or language of the child in order to provide students with linguistic and/ or socio-cultural peers. Children of non-traditional families were grouped in this fashion, also. Called clustering, this was a practice designed to support children's sense of belonging. For those interviewed, this was just one of the many solutions perceived as supporting the central role of the classroom and teacher in providing a learning community which fostered inclusiveness. Co-teaching also evolved with this concept, and, in Kugelmass' study, is described as a blended services model. In a blended services model, depending on individual student's needs, some classrooms may have in addition to a lead teacher, one or more collaborators certified in the following specialties: exceptional student education, English for second language learners, reading, mathematics, or speech and language pathology. In response to newer reforms focused on accountability and a standardization of curriculum, goals at Kugelmass' school were established in line with state standards and written narrative reports that were sent home to all parents during the year, modified as needed. In his concluding statements about the reviewed school, Kugelmass (2001) notes that through his association with several national school reform movements, he had found little support among special educators in the United States for the social-constructivist curricula utilized at the school that he had studied over a four-year period.

Garner (2000) describes four threats to the inclusion movement: (1) the lack of a precise definition; (2) internal exclusion within schools; (3) the lack of research evidence concerning the effectiveness of inclusion; and (4) a continued preoccupation with labels for children with learning difficulties. Garner cites the underlying cause as the failure of exceptional student

education teaching programs to address these needs. Further, he suggests that courses bear little relation to what occurs in the schools and offers that schools play a larger and more influential role in course design.

In England, the principle of inclusive education is to enroll all children in regular schools unless there are compelling reasons to do otherwise. In Clark, Dyson, Millward, and Robson (1999) the management of change and inclusive practices are described. Offered are brief portraits of the structural features of inclusive practices through a descriptive cross-case study of four secondary British schools. Each school described differs in socio-economic contexts and was chosen for visibility of practices and diversity of student populations. Descriptions are analyzed through an interpretative perspective whereby the authors construct meaning in conjunction with the work of Fullan (1992) who states that real change is most likely to occur when individuals work in organizations that enable them to explore the meaning of change, where meanings are shared, and genuine cultural transformations take place. Authors who emphasize change as a key role of the teacher also influenced Clark et al. (1999) in drawing conclusions about inclusionary practices and making inferences such as: It is the teachers themselves who have to construct the meaning of inclusion as part of an overall cultural transformation in an inclusive school.

Change processes over 15 years of inclusionary practices are also noted in that, according to observations by Clark et al. (1999), inclusion has failed to deliver a unified set of practices. Hypothesized is that new structures and practices in mainstream schools need to emerge to accommodate inclusive education. The basic premise of Clark et al. is that special education is an artifact of practices situated in bureaucratic school structures. Clark et al. challenge the premise that students' difficulties in learning arise not out of the deficit within the students themselves, but out of inappropriate responses that are made to those students by the schools.

Bureaucracies continue to have an effect on the development of more appropriate responses. The more teachers are expected to work individually, the less likely they are to develop flexible problem-solving strategies, which enable them to respond to the diversity of learners in their classrooms.

The inclusive argument is that it ought to be possible to accommodate all learners by creating structures in schools, which enable teachers to work together in problem-solving teams. The inclusive school is therefore different in its internal structure and practices. Clark et al. (1999) state that:

> The implication for the development of inclusive schools would seem to be that inclusion [couldn't] effectively be created simply by the dictate (sic) of national, local or school administrations. Rather, the teachers in inclusive schools have to construct the meaning of inclusion for themselves as part of an overall cultural transformation of their schools. (p. 10)

Similarly, Imants (2002), in his study of inclusion reform in the Dutch primary schools, questions how organizational factors in a school culture contribute to the potentially counterproductive effects of the inclusion reform movement. Imant's statements about inclusion include reforming mainstream schools by implementing modern learning environments, providing a revised national school funding system, developing new curricula, monitoring assessment instruments, regulating student guidance, and creating new roles within the inclusion model.

Imants labels current innovations within the inclusion models counterproductive if they contribute to the continuation of a system of separated special services for disabled students, which does not provide adaptive instruction for all students and does not contribute to the professional development of regular classroom teachers. His analysis of the current Dutch reform movement includes statements that reference multiple studies spanning 20 years of organizational development. The relationship between two divergent theoretical models for

school organizations is also noted. According to the literature, organizational images are constructed through beliefs about the organization and represent how an organization is structured and how an organization functions.

In the bureaucratic image of organizations, teachers teach homogeneous groups of students in isolation from other teachers with little supervision. Whereas in schools where inclusionary practices are in place, schools tend to develop in the direction of an adhocracy image (Imants, 2002). In an *ad hoc* situation, teachers form flexible groups as a result of a specific project or in order to solve a specific problem. Imants cites flexible groupings of teacher and curricula as a concept central to inclusion. Dyson and Millward (1997) describe this as an interactive paradigm.

Imants (2002) states that it is the bureaucratic paradigm which makes the segregation of special-service students, appear rational and legitimate. No intervention in the workings of regular education classrooms is provided. In a bureaucratic structure of schools, students with special needs are often mainstreamed into classrooms which have failure already built into their provisions. Hypothesized in Imant's study is that restrictive conditions for student referral at the local and national level, and the way in which organizational conditions and instruments for special services are implemented in the classroom and the schools, in conjunction with the absence of effective adaptive instruction in the classrooms, help to contribute to the development of a separate system of special services within the schools. For Imants, a separated system of services runs counterproductive to inclusion because such a system is contrary to the goals of an adaptive curriculum, and separate services do not contribute to the professional development of regular classroom teachers "which is assumed to be a cornerstone of the inclusion reform" (p. 32). Despite innovations such as student assessment instruments and new roles such as a separate

special services coordinator at each school site, Imants reports that the development of inclusive education in the Dutch primary schools lags far behind.

Arguments in favor of inclusive education are that the costs of special education would be reduced and the quality of regular education would be improved by transferring the achievements of special education to its venues. Imants (2002) found that as a result of the implementation of an inclusion model of education in the Dutch primary schools, referrals to special education have decreased. Imants cautions, however, that reductions in referrals may also be linked to the restrictive conditions for referrals associated with financial conditions at the local and national level.

No significant increases in adaptive instruction were observed by the evaluation studies conducted by Imants (2002). Nor was there a positive relationship between adaptive instruction and learning results. In addition, in many schools professional development was not offered during the implementation stage. The special services coordinator was not responsible for adaptive instruction in the regular schools; nor could student instruments measure adaptive instruction in regular schools. Imants postulates that the absence of adaptive instruction and inclusion practices throughout the schools might be interpreted as an organizational problem. In a bureaucratic structure formalization and specialization are paramount. The bureaucratic model fosters quasi-homogeneous groups of students in isolation from other students. Teachers are expected to be ready to work and problem solve in isolation from others or to refer problems to a specialist (Imants, 2002).

Imants notes that when schools are structured through an *ad hoc* design to include students with disabilities, schools can deal with problems in a novel way. Imants cites the most important element of an *ad hoc* design as informal communication and states that, informal communication is the only method by which unpredictable work situations like adaptive

instruction can exist. Problem solving is a shared responsibility. In the traditional option, the classroom teacher organizes the problem (the student) “away from the classroom and away from standardized curriculum” (p. 51). The central concept, on which inclusion practices such as the co-teaching model are based are collegial consultation and shared responsibility for problem solving and exchange.

The implementation of conditions promoting inclusive education might be regarded as the first step toward adaptive instruction (Imants, 2002). Of particular interest to the researcher are studies that focus on school reforms and inclusionary practices. Most of the research in this area focuses on practices. Ainscow, Farrell, Tweddle, and Malki (1999) found a dearth of studies at different stages of development, which draw together policies and practices across various Local Education Agencies (LEAs). Therefore, Ainscow et al. (1999) conducted a study of 12 LEAs to reflect a broad range of policy and practices on inclusion.

Ainscow et al. describe and evaluate inclusion arrangements, provide examples of good instructional practices, and explore factors that may assist in fostering such developments through an instrument called the LEA Review of Framework. The LEA Review of Framework is based on a series of indicators that define features of an inclusive policy, which would allow key personnel within an LEA to assess inclusion within a given region designed by the researchers. The LEA Framework focuses on four indicators: (1) LEA policies that encourage inclusive schools, (2) special students who attend neighborhood schools, (3) the organization of schools to respond to a diversity of populations, and (4) agencies which work together to support inclusive practices. Further, the authors developed a series of questions under each indicator to map out which LEA policies and practices needed to be scrutinized. Training on the use of the LEA Review Framework was provided to small teams of educational specialists from 12 divergent LEAs across dramatically different geographical areas of Great Britain. Following training, the

specialists held conferences with teachers, educational officers, parents, students, and Health and Social Services personnel to review their LEA's development in inclusive education with regard to each indicator in the instrument. Then, each specialist prepared a report, which focused on specific examples from the LEA Review Framework instrument.

Ainscow et al. findings are supplemented by evidence from a review of existing projects that suggest that there is still some confusion about what is meant by inclusion in relationship to *educational provisions*. Ainscow identifies six mandates through his overlapping themes, which are crucial to the development of more inclusive practices in LEAs: (1) develop policies related to assessment practices and allocations of resources; (2) identify funding policies and mechanisms used to determine the distribution of available funding and the degree of differentiation between the budgets of the most needy and the least needy; (3) reform processes and structures by training teachers in working more effectively with adults; (4) manage change to ensure that resources are mobilized to support the process of change; (5) foster good communication through partnerships with support services, parents and agencies; and, (6) monitor external influences through the LEA.

Student Achievement

Due to the recent Regular Education Initiative (REI) and accountability for all student groups commanded through the No Child Left Behind Act (2002) which states that schools and districts should be held accountable for student learning, the inclusion service delivery model has been viewed as a viable option for students with disabilities. It is also an answer to the recent call for school reform and exposure of students with disabilities to regular education curriculum. Prior studies have indicated that special education students in pullout programs have had poor academic achievement. Rea, McLaughlin, and Walther-Thomas (2002) concur that, restricted experiences outside of general education have led to poor social and academic outcomes for

students with disabilities. Similarly, proponents suggest that “once included in classrooms with higher expectations, appropriate role models, and true opportunities for generalization of skills, student with disabilities will experience improved outcomes.”

Much attention and energy remain focused on the justification for inclusion, the process itself, and/ or the affective responses of participants. Rea et al. (2002) offer that an evaluation of special services in the eighties was initially prompted by (1) unsatisfactory academic performance by students with disabilities, (2) demands for social equity, an increase in the number of students identified as having a learning disability, and increasing costs of special education services. In a broadened scope of events, Pisapia (n.p.) provides that the national policy of the eighties was focused on efficacy of product, social and welfare concerns, enforcement of regulations, and federal interventions and that this focus has shifted to a concentration on excellence through standards of performance, economic productivity, parental choice, state and local initiatives, and the sharing of information. Today, there is a tension between process and outcomes. Who do we measure? Do we examine the teachers, the students, the Local Education Agencies? Or, do we look toward the politicians and special interest groups who have manipulated the entire landscape of education?

Few studies have compared the achievement of exceptional students to general education students. In the United States, recent studies on inclusion have focused on a small number of subjects, challenging reliability, and/ or have utilized, due to lack of availability, outdated databases. In England, two studies, one at Manchester and one at Cambridge, examined large databases with inconclusive results. A brief review of the aforementioned follows.

Huber, Rosenfeld, and Fiorello (2001) were concerned that in restructuring the schools to support students with disabilities, that instructional models may no longer be meeting the needs of high achievers. Other concerns were that typically school districts have not increased the

amount of resources provided when restructuring for inclusion. Therefore, Huber, Rosenfeld, and Fiorello investigated the effect of inclusive practices on general education students' reading and math achievement, the effects of having students with disabilities as classmates on general education students' achievement, and whether high performing students are affected in the same way as average and below-average performing students. Sampled were 477 randomly selected education students in grades one through five across three Pennsylvania elementary schools within the same school district. Students selected were from a working class population with a reported ethnic distribution of white (72%), African American (27%), and Asian (11%). Approximately fifty percent of the students qualified for free and reduced cost lunch. Two comparisons were made. The first looked at changes in general education students' achievement scores for high, middle, and low achievers across three years of instruction in inclusion. A second comparison looked at incremental changes in general education students' achievement scores depending on numbers of students with disabilities included in classrooms. Students were divided into three skill groups based on their individual scores on the Metropolitan Achievement Test. Groups were analyzed separately for math and reading achievement. For all three school years, a 2 (year) x 3 (level) analysis of variance, balanced factorial design, with repeated measures on the year factor was performed. Results indicated that the student skill factor had a statistically significant effect on incremental change in general education students' reading scores F (2,498) = 12.86, $p < .001$. Students from the below-grade level skill group (change score M = 0.36) and students who were from the within grade level group (M = -1.20) had higher reading change scores overall during the two years of inclusive practices than students from the above-grade level skill group (M = -6.21). For math, results indicated that the student factor had a statistically significant effect on math change scores, F (2,546) = 26.85, p, .001. Mean math change scores of students from the below-grade level group (M = 5.62) and students from the

within grade level group (*M* = -6.45). Again, student skill did have a significant interaction effect with school year. Students from the below grade level group had higher math change scores during the year than during the following year. In contrast, students from the above-grade level group scored significantly lower during the school year. Huber, Rosenfeld, and Fiorello found that inclusive practices may contribute to different rates of achievement where general education students are concerned. Initially, in the first year of implementation, students who initially had lower academic skills in reading and math before inclusion appeared to benefit academically from inclusive practices, while students with higher skills did not. However their effects were less pronounced during the second year of implementation. Citing Cook, Semmel, & Gerber's (1995) tolerance theory, Huber, Rosenfeld, and Fiorello offer that "when extensive resources are provided for teacher training and student interventions to work with low skill students, higher achieving students should underachieve." However, the number of students with disabilities within general education classes did not appear to have a significant effect on general education students' reading achievement. In math, there were significant effects, but the pattern was unclear. The presence of larger numbers of children with disabilities did not lead to lower achievement by general education students. Some classes did well with high numbers of included students, some did not. Suggested is that variables such as attitudes, degree of implementation, or teacher training and experience could offer classroom differences and that future research could include these variables when examining the effects of inclusive practices on different skill levels.

In a smaller study of the effects of inclusion on student achievement, Rea, McLaughlin, and Walther-Thomas (2002) compare the performance of middle school students with learning disabilities who were served in inclusive classrooms to similar students served in pullout special education programs. Students were compared across dimensions of academic achievement, daily school attendance, and disciplinary infractions. Archival qualitative and quantitative data were

utilized. Data on 36 inclusion students from one middle school and 22 pullout students from another middle school in the same district were drawn from Child Count records, IEPs, class, school, attendance records, discipline records, reports cards, and student scholastic records. Comparability of groups was conducted through *t* tests and chi-square analyses. *T*-tests revealed an insignificant difference between the two groups. The majority of students in both settings were Caucasian. Statistical analysis revealed no significant difference in ethnicity. A chi-square analysis substantiated that the groups did not differ on free or reduced lunch status (8.3% at the one school studied and 18.2% at the other). The two groups were similar in terms of mother's education levels. A comparison of measured cognitive abilities of the two groups revealed no significant differences in full-scale verbal and performance IQs. *T*-tests were used to establish comparability of groups on each of these cognitive measures. Students were also comparable on two additional variables, the mean number of years that they had received special education services, and years enrolled in the same school district. Settings were described vividly by the researcher. Program variables and IEP objectives were also analyzed. Three indicators of student outcomes were measured: academic achievement, behavior, and school attendance. Measures of academic achievement included final course grades in eighth grade language arts, mathematics, science, and social studies; and standard scores on reading, mathematics, science, and social studies subtests of the *Iowa Test of Basic Skills* (ITBS). In addition, the highest scores, pass/fail rates, number of administrations, and nonstandard administrations on the reading, mathematics, and written language subtests of the state's academic proficiency test, the Literacy Passport Tests (LPT) were also used. After establishing the comparability of the groups, course grades, standardized and criterion test scores, suspension, and attendance data were analyzed.

Students with learning disabilities served in inclusive classrooms earned significantly higher grades in all areas of academic instruction: math, social studies, and reading. Rea et al.

(2002) state that their findings question the assumption that small group instruction will not necessarily result in improved scores or pass rates on standardized tests, and report that the limitations of the study were that it was conducted with a small group of learning disabled students (n = 58) and that the archival data accessed was outdated.

Other studies have compared large data bases and populations across schools. Florian and Rouse (2004) investigated the progress of students in schools where there are higher proportions of students with special education needs compared with the progress of students in schools where the proportion was lower. Variables examined were students performance on secondary school exams, student' exceptional education need status, gender, entitlement to free school meals, ethnicity, and first language. Data were used to examine the progress of a cohort of students across five years of secondary schooling. The progress of students from three case student secondary schools with high proportions of students with exceptional needs (> 25%) were compared to the progress of junior year students in all schools across the district. Comparisons were made to the progress of students in similar schools and also to the progress of students in schools were the proportions of students with exceptional needs was lower (< 12%). Explored were the variations in achievement between the schools, students with and without exceptional needs, and attainment on entry exams to secondary school. So that progress over the five years of secondary school could be considered, other variables associated with achievement such as gender, free-school meal eligibility, ethnicity, first-language spoken, and mobility were explored using independent samples *t*-tests. Analyses of variance were performed to test whether there were differences between schools. Qualitative data were used to support quantitative measures such as number of included students. Eight days were spent observing lessons, interviewing key stake holders, and viewing school documents. Emerging findings offer insights that may help to explain the differences in student progress between the schools. A complete set of progress and

demographic data were analyzed for 2,448 students in 14 secondary schools. However, only three case schools were included in the treatment group. At first, case study schools with higher proportions of students with special education needs seemed to perform better than schools where the proportion was lower. A second one-way *ANOVA* was then conducted in order to compare each of the case student schools to the comparison school. School effects were found such as the overall ratings of each school. Eventually the authors found that in two of the case study schools, the presence of relatively large numbers of children with special education needs did not have a negative impact on the achievement of children who did not have special education needs. Staff in these schools believed that the strategies used by the school for including students with special education needs contributed to improved achievement for all. The authors felt that though not proved in the study, it was "particularly substantiated" by the performance of all students in the schools where there were high proportions of children with special education needs and high achievement. Additional resources resulting from inclusion may also have made a difference as well as the demographic composition of the schools. Finally, the authors warn that there are limits to what databases can reveal and databases should be used cautiously. "There are many stories about inclusion that lie behind the numbers. These stories can only be told over time using research designs that employ a range of mixed methods, of which scrutiny of the NPD is but one" (p. 12).

Lastly, the researcher found that Manset and Semmel (1997) provide an interesting analysis of eleven different articles on inclusionary models for students with mild disabilities, some of which provided quantified data. In addition to identifying best practices mentioned throughout the studies, Manset and Semmel compiled a list of notable methodological problems throughout the articles that they reviewed. These were a lack of true randomization of subjects, a lack of a description of the treatment in control groups, if in fact control groups were used,

drawing interpretations from insignificant statistical findings, difficulty in identifying treatment variables, replicability in virtually all of the eleven studies reviewed, and conclusions based on inconclusive differences between pull-out and inclusion programs. Several achievement articles were not reviewed by this author due to some of the problems that Manset and Semmel describe. In addition, studies which were examined lacked organization and were of questionable validity.

Related Studies

A search of the literature found three studies: Kaczmarcik (1996), Pirie (1996), and Matlock (1999), that used some of the forms from The Instructional Environment System-II (TIES-II) contained within the current Functional Assessment of Academic Behavior (FAAB, 2002) to measure inclusionary practices and collaborative consultation. The TIES-II was originally developed by Ysseldyke and Christenson (1993) to assist psychologists, teachers, and related personnel in developing effective learning environments for exceptional education students who spend part of their day mainstreamed in regular classrooms. Ysseldyke and Christenson (2002) identify in the FAAB 23 supports for learning components in three contexts: 12 classroom components, five home components, and six home-school relationship components. The 12 Instructional Support Learning components, which are grouped into four areas (planning, managing, delivering, and evaluating instruction), are Instructional Match, Instructional Expectations, Classroom Environment, Instructional Presentation, Cognitive Emphasis, Motivational Strategies, Relevant Practice, Informed Feedback, Academic Engaged Time, Adaptive Instruction, Progress Evaluation, and Student Understanding. Ysseldyke and Christenson also illustrate different ways to gather information about instructional conditions that affect student performance. These are further developed in Chapter III, as are a number of studies conducted by Ysseldyke and Christenson to validate the instruments.

Pirie (1996) used TIES-II rating scales, checklists, and open-ended interview forms

contained within the FAAB to answer the following questions: Which disabled students are candidates for inclusive education? How does one articulate special education services with regular education instruction? And how does one supervise and coordinate the services delivered? Practices at one elementary school were observed using the TIES-II Classroom Observation Record. Nine teachers were interviewed using the open-ended Teacher Interview Form. Twenty-four parents were also interviewed. Results showed that educators and parents considered pull-out instruction, in combination with in-class support to be the most desireable option for mildly and moderately disabled students.

Matlock (1999) conducted research to determine the part teachers play in the education of students who have Attention Deficit Hyperactivity Disorder (ADHD). Assessment of 85 teachers in grades one through six was performed using four instruments: The Problems in Schools Questionnaire: A Measure of Adults' Orientations Toward Control Versus Autonomy with Children; the Instructional Environment Form from the TIES-II; an adaptation of the Instructional Modifications from the TIES-II; and, an original Teacher Questionnaire. A 3-way analyses of variance was performed. Results revealed that out of 34 classroom components, modifications, and interventions, controlling teachers' responses were significantly stronger on eight items and that the autonomous teachers were stronger on two. Trained teachers showed significant responses over untrained teachers on two items. Results showed no significant differences between novice and experienced teachers. Suggested are recommendations for schools in providing appropriate interventions for ADHD students in regular classrooms.

In the research of Kaczmarcik (1996), the purpose of the study was to observe successful classroom practices in order to determine which techniques led to the successful inclusion of ESE students in regular education settings. Questions included: What processes used by teachers impede inclusion? Why do some teachers use uniform strategies in inclusive classrooms? The

methodology was descriptive and utilized classroom observations of students at one middle school who had been included into academic and non-academic areas of the curriculum. Students' behaviors and instructional environments were observed through the TIES-II system. Results of the study indicate that inclusion should be practiced based on the specific needs of individual students and that opportunities for this segment of the population to be included into the regular education environment, should be provided.

The Instructional Environment System-II (TIES-II).

Ysseldyke and Christenson (2002) developed TIES-II and the revised FAAB version to consider person-environment fits for learning. Ysseldyke and Christenson wanted to understand the types of conditions associated with optimal student performance and the kinds of instructional support needed to achieve such performance.

In order to validate their instrument Ysseldyke and Christenson (1993) conducted an intensive review of the literature on predictors of positive outcomes for students and identified factors that individuals have shown are important correlates of student achievement and outcomes. Factors selected for the TIES-II were those that were repeatedly mentioned in the literature for improving academic outcomes, were easily observable, and for which there was "empirical demonstration of effectiveness in model teaching programs" (p. 51). Originally, a list of 200 descriptive statements about the kinds of instruction present for students in school settings was identified. Through a series of pilot studies, 40 items were selected and categorized into 22 categories based on a theoretical framework derived from a review of the literature on effective instruction. The 22-component scale was used in school settings and reduced to a 12-component scale. Verified was that TIES-II is a systematic way to gather descriptive information on the nature of a student's instructional environment.

Inter-rater reliability for the original TIES-II (1993) was calculated by computing intra-

class correlations using the procedure outlined by Shrout and Fleiss (1979). Twenty-eight observers watched tapes of each of two teachers instructing a small group of elementary-age students. Observers completed the observation record and were given copies of the completed Teacher and Student Instructional Records. They completed the scale on the basis of observations and interview data. All inter-rater reliabilities exceeded .80; two exceeded .90. Inter-rater agreement was checked as part of a study of the observers' ratings of the qualitative nature of instruction for students under different student teacher ratios. Thirty-eight pairs of observers observed the same student for one hour during either reading or mathematics instruction. Exact agreement and grouped agreement were examined. Inter-rater agreement on exact ratings was 48.8 percent and for grouped ratings was 76.2 percent. According to Ysselydke and Christenson (1993) ratings were to be expected due to the complexity of instructional environments.

Clear evidence for the content validity of TIES-II (1993) was also documented. First, content validity was established for how the instructional components for TIES-II are related to academic achievement. TIES-II data and achievement data on a sample of 176 students in general education environments and 215 students in special education environments were examined. Correlations in general education environments were moderate. Variability in instructional environments was also verified. Investigations were conducted observing students with mild disabilities in regular education classrooms across subjects and in mathematics and reading instruction. Students were also observed in special education settings in reading and mathematics instruction. Notable was that TIES-II component 4, (Cognitive Emphasis) was rated most often as missing or inappropriate. Reported was that drill and practice were used extensively for individual students with disabilities during reading and math instruction across instructional settings in general and special education classes and that instruction in thinking

skills was incorporated through lessons in other content areas.

TIES ratings were also completed in general education versus special education settings for 62 students with mild disabilities. Ratings were completed across subject matter content areas. Paired *t* tests were used ($p < .01$) to compare mean ratings for each of the 12 TIES-II instructional environment components in the two settings. Reported were significant differences as a function of setting. Ratings of the appropriateness of the instructional environment were significantly higher in special education settings for all components except Component 2 (Classroom Environment).

In a second study, TIES-II ratings were contrasted with 74 students with mild disabilities in reading and mathematics instruction in general education settings. Paired *t* tests were used to contrast ratings. No significant differences in the nature of instruction as a function of content area were reported.

In a third study TIES-II ratings for 70 students with mild disabilities in special education during all content areas of instruction were contrasted with TIES-II ratings for 145 students with mild disabilities in special education settings during reading and/ or math instruction only. Ratings were similar across content areas with two exceptions: cognitive emphasis and adaptive instruction, which were higher when comparisons were for all subject areas rather than restricted to observations during reading and math only. As a further validation to the TIES-II investigations, gender differences using TIES-II ratings were also conducted. Findings from five data sets showed no differences in TIES-II ratings for boys and for girls despite research on gender differences.

Finally, the extent to which there were differences in TIES-II ratings for categories of disabilities was investigated. In special education settings, instruction was rated as more appropriate for learning disabled students and emotionally handicapped students than for

mentally retarded students on TIES-II Component 2, (Classroom Environment); Component 3, (Teacher Expectations); Component 5, (Motivational Strategies); and Component 12, (Student Understanding). In general education settings when all subject matter areas were observed, instruction was viewed as more appropriate for learning disabled students than for non-disabled students on TIES Component 4 (Cognitive Emphasis), Component 5 (Motivational Strategies), Component 6 (Relevant Practice), and Component 10 (Progress Evaluation).

Inclusion in High Poverty Schools

In the past, inclusionary practices in high-poverty schools have been expanded through large-scale studies that have assessed the efficacy of Title I programs. Title I of the Elementary and Secondary Education Act (ESEA) has been the largest funding resource for high-poverty schools since the advent of entitlement programs in the sixties (Borman, 2000). The primary goal of Title I has been to significantly narrow the achievement gap between economically disadvantaged students and their more advantaged peers. In the seventies and eighties, Title I research was marked by an evaluation of which programs serviced economically-disadvantaged students best and to which service-delivery model the schools ascribed. In its earliest inception, Title I students were serviced through pull-out programs and funding was not to be supplanted for regular education activities. School personal, supplies, and teachers purchased through Title I funding could not be used to service regular education students. Statutory changes in the nineties now permit Title I funds to be used by the most disadvantaged schools for the schoolwide distribution of resources such as personnel and supplies. These *schoolwide projects* now include economically-disadvantaged students in mainstreamed classrooms throughout the school day. This policy is an implicit recognition by policy makers that inclusionary programs may have a positive role in ameliorating the effects of poverty in an educational setting.

National comparative studies of economically disadvantaged students in Title I schools

have been limited to addressing the achievement difference between program participants and more advantaged students. Comparisons at the local level have been limited (Borman, 2000). Similarly, related research on school effectiveness has been criticized for its focus on successful schools in high-poverty urban communities. As a result, recent research on school effectiveness has expanded to include schools that vary in school effectiveness and socio-economic status (SES) composition. Taylor, Teddlie, Freeman, and Pounders (1998) identify several attributes common to effective schools regardless of SES. These are a high degree of time on task, high expectations for student achievement, and a schoolwide emphasis on academics. Differences noted were the approach to the curriculum, which varied depending on student SES background, a higher focus on basic skills such as arithmetic and reading in low-SES schools, and a broader based curriculum in high-SES schools. Taylor at al. (1998) also found that teacher attitudes varied from population to population.

Title I remains a funding source and differences in the way schools implement the program affect estimates of its effectiveness. For Borman (2000), the standards for measuring a program are whether the treatment is being implemented and whether or not it is producing the intended changes relevant to outcomes. Meta-analyses of Title I and student achievement such as the Stands study (1994) have indicated that, from a statistical standpoint, the overall program effect is random.

Poverty and Socio-Economic Status

Recent studies define poverty by cash income through the use of the federal guidelines (McLoyd, 1998). Poverty thresholds for 2001 indicate that 23,215 families in the United States lived below the poverty level and that 9, 148 of those families lived 50 percent below the poverty level. A weighted average of poverty thresholds for a family of four was $18,104 per year (U.S. Bureau of Labor Statistics, 2001). The use of federal poverty guidelines as a unit of measurement

enables researchers to link child outcomes to the poverty gap and to distinguish the unique contributions of income over components of socio-economic status.

Huston, McLoyd, and Coll (1994) have identified several factors which differentiate poverty from low-SES and economic hardship. Huston et al. (1994) measure economic hardship through indicators such as parent unemployment, unstable work, income loss, and low SES. Whereas, poverty is defined as a chronic condition in which poor families are marked by repeated exposure to poor health conditions, inadequate housing, homelessness, environmental toxins, and violent or unsupportive neighborhoods. Unlike economic hardship caused by the loss of a job, poverty is not a distinct event. Phenomena such as the sudden loss of income do not push families into poverty. Correspondingly, poverty does not have a similar structure to low SES. Typically, the term low SES has been used to describe "groups' ranking on a hierarchy according to their access to a control over some combination of valued commodities such as wealth, power, and social status" (Huston et al., 1998, p. 277). Indicators like occupational status, educational attainment, prestige, and power, are clearly related to, but distinct from, poverty status. When compared with SES through indicators such as educational attainment or occupational status, poverty status has been described as being more volatile. For example an indicator such as income may fluctuate more year-to-year than SES indicators such as educational attainment. Several studies support the notion that poverty and income status have effects on children's environmental circumstances independent of SES indicators such as parent education (Huston et al.). The relationship between income and SES can also vary by race and ethnicity. Huston et al. found that even when African-Americans and Euro-Americans are at the same educational level, racial disparities exist in income and the quality of job conditions. Huston et al. also describe poverty as a subjective experience whereby the same level of income or material comfort may be perceived differently depending upon such factors as parental

communication about worries, or whether or not children are denied experiences because the family lacks money. Poverty has profound effects on parenting, home environment, family stability, and immediate resources. Despite the official poverty index, poverty is not "a homogeneous, static phenomenon, but one that varies along many dimensions" (p. 277).

Miami-Dade County Public Schools, Title I Evaluation

In this study, the inclusion of exceptional education students in regular elementary education classrooms throughout the school day was observed and measured in nine high poverty schools. Each received supplemental funding through the federal Title I program. As of the 2001-02 school year, there were 215 elementary schools in the Miami-Dade County Public School (M-DCPS) system and of those, 170, had concentrations of poverty high enough to qualify for Title I funding (Levitt, Shay, Hanson, Naya, & Urdegar, 2003). Under Title I, students qualify for federal assistance based on their eligibility for the free and reduced lunch program, which is tied to the federal poverty index. Schools with high concentrations of poverty: "tend to be those confronted with major educational challenges" (p. 9). Student populations at Title I schools have a higher proportions of students in categories associated with lower scores on standard tests of academic achievement. Title I schools also have higher concentrations of African-American students, limited proficient English (LEP) students, ESE students, and migrant status students. The prevalence of any one of these characteristics in a set of schools has been associated with poorer academic performance.

During the 2001-02 school year, the last year for which data were available prior to the onset of the present study, there were 9,000 elementary ESE students. Of those students, 5,438 were enrolled in Title I schools The ESE population is comprised of a variety of disabilities that may range from those that may have little impact on student achievement (e.g., speech disorders) to those that have a profound impact on many levels of learning (e.g., severe mental handicaps).

It is, therefore, not unexpected that the lowest achieving groups of students in reading were in limited-English proficient (LEP) and exceptional student education (ESE) categories (Levitt et al., 2003).

Summary

During the past decade, a positive relationship between collaborative teaching and decision making has been indicated at a variety of educational institutions across a variety of settings. Nevertheless, criticisms of inclusionary practices have included a lack of rigorously tested curriculum materials to poor instructional methods and archaic governmental policies. There are few discernible differences between instruction used for students with mild disabilities and their same-age peers. There is also a shortage of high-quality individualized instruction due to the superficial training of teachers in special education programs, inadequate teacher preparation, and categorical teacher training. Students with disabilities continue to be either over-identified or under-identified. Funding formulae are archaic at best, and bureaucratic structures that hinder collaborative teaming and co-teaching models persist. Other concerns presented in the research are that there is a focus on governmental policies that promote equality of opportunity rather than equality of condition (McLoyd, 1998) and secondly, that inclusionary studies of ESE students have primarily been confined to the university research community and therefore lack generalizability to the population at large.

CHAPTER III: METHODOLOGY

Philosophical Perspective

This study utilized a concurrent mixed-model design which uses qualitative and quantitative techniques to address different aspects of the research. Each section has its own data analysis and collection procedures (Tashekkori & Teddlie, 2003). Greene, Caracelli, & Graham (1989) refer to such a design as an *expansion* model. This approach expands the scope of an inquiry beyond what would be possible with either method alone. A design of this type is typically used in program evaluations where a glass-box examination of implementation is needed to complement the traditional black-box analysis of outcome data prevalent in purely quantitative studies. "The results from the two methods are integrated [in order] to form meta-inferences at the end of the study" (Tashakkori, & Teddlie, 2003, p. 327).

In this study, qualitative case study methodology was used to better understand how instructional practices are implemented in an inclusive classroom environment. A quantitative analysis of the effect of this service-delivery model on student achievement was also conducted to glean the impact of inclusionary practices on objective indicators of academic progress.

Purpose of the Study

The main purpose of this study was to determine the extent to which inclusionary practices impact the learning environment in high-poverty schools. An additional purpose was to explore the effects of inclusion on students' academic achievement.

Research Questions

The two primary questions that this study attempted to answer are: To what extent, if any, do inclusionary practices impact the learning environment of students in high-poverty elementary schools? And, to what extent, if any, do inclusionary practices impact the academic achievement of inclusionary students in high-poverty elementary schools? The first question,

addressed during the qualitative phase of the study, subsumes several related questions, which evolved during the teacher interviews. According to Bogdan and Bilken (2003), qualitative research is an inductive process. Research questions emerge from the data collection process. The following questions are representative of that process:

1. What is the philosophy of co-teachers working in inclusionary classrooms?

2. How is collaboration implemented in inclusionary classrooms?

3. Which methods of instructional delivery are most prominent in inclusionary classrooms?

The quantitative portion of the study attempts to answer the second primary research question:

4. How do the norm-referenced reading and mathematics scores of students in inclusionary settings in high-poverty schools compare with their counterparts in a non-inclusive setting?

Research Hypothesis

H_0: Inclusionary practices will have no effect on academic achievement as measured by the FCAT scores of students in inclusive classrooms in high-poverty elementary schools relative to those of a control group of demographically comparable students in non-inclusive classrooms.

H_1: Inclusionary practices will have a positive effect on academic achievement as measured by the FCAT scores of students in inclusive classrooms in high-poverty elementary schools relative to those of a control group of demographically comparable students in non-inclusive classrooms.

Design

A concurrent mixed-model design, which utilizes qualitative and quantitative techniques to address different aspects of the research, was utilized. Each section has its own data analysis

and collection procedures (Tashekkori & Teddlie, 2003). This evaluation was conducted during the 2003 – 2004 school year.

The qualitative portion of this study utilized a collective case study design (Stake, 1995) to facilitate cross-site analysis. Cross-case analysis divides the data by type, across all cases investigated (Soy, 1998). Data generated from cases make the study come alive through allowing the reader to experience his/ her own real-life situations (Tellis, 1997). In this study, case study analysis added to what is previously known about collaborative relationships and inclusionary settings through the research and emphasized detailed contextual analysis and relationships. Initially, a topical outline served to predefine and organize primary and secondary constructs under study. In such a design, the data sources are predetermined. An adapted version of Ysseldyke and Christenson's (2002) Extended Teacher Interview which focuses upon teachers' expectations, instructional diagnosis, planning, strategies, adaptive instruction, cognitive emphasis, materials, practice, and productive use of time was utilized in conjunction with Ysseldyke and Christenson's Observation Form which assisted the researcher in concentrating upon observing instructional planning, management, delivery, monitoring, and evaluation. Structured and unstructured questions also served to survey teachers' educational philosophy and the initial development of the inclusionary program at their school site. A log was used to document insights, patterns, and inconsistencies. Documents available through the district's web site and schools' web sites were used to illustrate and/ or validate school structures and supports.

The strength of case study method is that it utilizes multiple sources and techniques in data gathering. Each case, reviewed individually, serves to bolster the understanding of the phenomenon being studied: inclusionary practices. Through the presentation of both coded data and direct interpretation, the primary concentration of the researcher was to identify the relationships in the data through the research questions across cases. The primary task in this

study was to identify common collaborative and instructional practices across cases.

In the quantitative phase of the study, a quasi-experiment was conducted to gauge the students' academic performance. Quasi-experiments are technically acceptable alternatives to true experiments used in situations where the latter are not feasible (Campbell & Stanley, 1963). The quasi-experimental design used in this study was the non-equivalent control group design. This design uses repeated test scores to compare the performance of students exposed to an experimental treatment (i.e., the experiment group) to that of a group who was not (i.e., the control group). The groups are considered to be non-equivalent because the subjects were not randomly assigned to them (as in a true experimental design). This design controlled for most of the primary internal validity threats to the findings, including history, maturation, testing, instrumentation, and mortality (Campbell & Stanley, 1963). In applying the non-equivalent control group design to analyze the students' achievement, the inclusion model represented the experimental treatment. As such, the students who attended the inclusionary classrooms comprised the experimental group. The students in the control group were drawn from a pool of all M-DCPS students who did not attend inclusionary classrooms during the 2003-04 school year. The Stanford Achievement Test, 9th Edition was used as the pretest for students in grade 3, and the FCAT-NRT (a secured parallel form of the SAT-9) was used as a pretest for students in grades 4 and 5. The FCAT-NRT is administered statewide to all students in grades 3 through 10 and is not administered to students in the lower grades. The SAT-9 is administered by the district on a supplemental basis to students in grade 2.The FCAT-NRT was used as the posttest for all students, grades 3 through 5. The analysis was limited to students who were enrolled in the same school, grade, and section in October 2003 and February 2004.

Sample

The sample used in this study was comprised of the teachers who taught in a set of

demographically representative inclusive classrooms in high-poverty elementary schools within the M-DCPS, and the intact student enrollment of those classrooms. An inclusive classroom is described as one in which regular education students receive instruction alongside five or more exceptional students (other than students who are gifted or speech impaired), all of whom meet the criteria for inclusion. A student meets the criteria for inclusion if s/ he is classified as exceptional but mainstreamed at least 1890 minutes per week and his or her educational planning/ delivery is through collaborative consultation (Office of Exceptional Student Education, 2004).

Sample Size Computation

The number of classrooms to be visited was dictated by the number of subjects needed to conduct an analysis of student achievement at acceptable levels of statistical significance and power. A statistical power analysis was used to determine these numbers. Power is the likelihood that the results of statistical hypothesis tests are correct. A conventional level of 0.80 has been established for statistical power (Cohen, 1988). The sample size necessary to ensure that a hypothesis test yields a specific level of power and significance is determined by size of the effect one wishes to detect. When placed within the context of results from similar studies, effect-sizes provide an indication of practical significance. Lipsey and Wilson (1993) tabulated the results of 302 meta-analyses in the fields of education, psychology, and medicine. Identified from the tables were 18 meta-analyses that the researcher felt were relevant to the achievement of students in inclusive settings. Of the meta-analyses examined, seven related to regular education students, six pertained to special education students, and five applied to combined groups of students. To account for the range of possible effects in inclusive settings, hypothetical combinations of the results of the regular education and special education meta-analyses were considered. Each combination assumed a two to one ratio of regular to special education students

in inclusive classrooms. Forty-two combinations were generated. As such, the results of 42 hypothetical and five actual meta-analyses that pertained to combined groups of students were examined. The mean value of the effect-size, *d*, reported ranged from a low of .13 to a high of .75 and averaged .41, across the meta-analyses. Eighty percent of the mean effect sizes were greater than .24.

Based on this analysis, the researcher structured this study to detect effect sizes of $d \geq .24$ for inclusion. As previously stated, 80 percent of the mean effect-sizes, from the meta-analyses, exceeded this value. This requirement was expressed in terms of strength of association, η, for use in an analysis of variance. The effect size η is approximately half the value of the effect size, *d*, in designs with two equal group sizes (Cohen, 1988).

The aim of the power analysis was to determine the sample size *n* required needed to make statistical tests sensitive enough to correctly identify the effect specified by H_1 ($\eta = .12$) with a probability of .80, while simultaneously limiting the probability of falsely rejecting H_0 to .05. In other words, the research hypothesis is given by H_1: $\eta = .12$ and the null hypothesis is given by H_0: $\eta = 0$. Cohen (1988) has tabulated the sample sizes needed to detect a variety of effect sizes at different levels of power and significance.

In repeated measures designs such as those planned for this study, "the caliber of statistical tests is enhanced by the between-measure correlations" (Cortina & Nouri, 2000, p. 49). In other words, the sample size needed to detect a given effect at typical levels of significance and power is less for a correlated design, than for an uncorrelated design. Cohen's tables apply to designs with a single dependent measure. Typical pre-test-posttest correlations were established based on an historical examination of previous pretest and posttest results. It was determined that .70 was a conservative value (Urdegar, 2003, n.p.). The sample size needed to detect an effect-size, $\eta = .12$, in a correlated design, is the same as is required to capture an effect-size, $\eta = .22$, in

an uncorrelated design (Cohen, 1988, p. 384). Thus, a sample size of (n = 83) subjects per group for each grade was determined.

Sampling procedures

Schools.

As a result, nine classrooms were selected to participate in this study. A multi-stage sampling procedure was used to select the inclusionary classrooms that comprised the treatment group. In the first stage, three schools were selected at random from the schools that operated inclusionary programs at the fourth-grade level. In the second stage, three additional schools were randomly selected from the schools not selected during the previous stage that operated inclusionary programs at the fifth-grade level. In the third stage, three additional schools were selected at random from those schools not selected during the previous stages that operated inclusionary programs at the third-grade level. Thus, three schools per grade level, for a total of nine different schools in all, were selected. In the final stage of the sampling process, one inclusionary classroom section from the appropriate grade level at each school was chosen at random. As such, 25% of the 12 third grade classes, 100% of the three fourth grade classes, and 23.08% of the13 fifth grade inclusionary classrooms at high-poverty schools in the M-DCPS were drawn. Thus, nine different sections from nine different schools were randomly selected.

Teachers.

It was the intention of the researcher to observe three third, three fourth, and three fifth grade classrooms randomly selected across nine high-poverty elementary schools in the Miami-Dade County Public School (M-DCPS) system. However, one school in the fourth grade sample declined an observation despite repeated faxes and visits with the school site administrator. A replacement school was not drawn, as during the 2003-04 school year, only three fourth grade inclusionary programs were operative at high-poverty elementary schools in the M-DCPS.

Hence, a total of eight classrooms (three grade 3, two grade 4, and 3 grade 5), were observed by the researcher; 16 co-teachers were interviewed.

Students.

Observations were conducted of the students in the inclusionary classrooms of each teacher interviewed. The students observed also constituted the sample for the analysis of student achievement. The fourth grade classroom that the researcher was not able to observe was included in the sample for statistical analysis. A total of $n = 76$ students in third grade, $n = 87$ students in fourth grade, and $n = 85$ students in fifth grade were observed. Of the students in the sample, 93.42% of the third graders ($n = 71$), 93.10% of the fourth graders ($n = 81$), and 96.47% of the fifth graders ($n = 82$) were enrolled in the same school and grade in October 2003 and February 2004. Of the 234 students so enrolled, 71.83% ($n = 51$) of the third graders, 79.01% of the fourth graders ($n = 64$), and 91.46% of the fifth graders ($n = 75$) were previously promoted (not retained). Thus, the treatment group that resulted was comprised of ($n = 190$) students in grades 3 through 5.

Virtual control group.

To assess academic achievement, the sample of students observed in the inclusionary settings was compared to a virtual control group of students drawn from non-inclusionary classrooms in high-poverty elementary school classrooms within the M-DCPS. Non-inclusionary classrooms, defined as those in which no exceptional students (other than gifted or speech impaired) spent 1890 minutes or more per week with *non-disabled* students, were identified. The students who attended those classrooms were then matched to the treatment group on variables identified by researchers (e.g., McLoyd, 1998) as having an impact on academic achievement: grade level, ethnicity, gender, limited English proficiency status, free and reduced lunch eligibility status, and primary exceptionality. For each treatment subject, a single matched

control was drawn at random from among the multiple exact matches that resulted. If an exactly matched control was not available, none was drawn. In essence, a stratified random sample of controls was drawn for each member of the treatment group. In stratified random sampling, the population under study is divided into strata based on key variables chosen by the researcher. A random sample is then taken within each stratum in proportion to its size (California Institute of Technology, 2003). Exceptional students (other than those classified as gifted or speech impaired) who spent 1170 minutes or more per week with non-disabled students were excluded from this group, as were all students who were not promoted from their prior grade-levels.

Initial comparability of the groups.

As an exact match was not available for each member of the treatment group, the number of subjects, in the treatment and control groups, was different. Therefore, chi-square analyses were conducted to assess the group's equivalence on each of the demographic variables pertinent to the matching process. The results of the chi-square analysis conducted were not significant ($p < .05$) at any grade level[1]. Thus, the groups were considered to be comparable in terms of the demographic variables that comprised the matching procedure.

Sample Composition

Schools.

Schools in this study represent a wide cross section of high-poverty schools in varying locations throughout Miami-Dade County. Classrooms in schools drawn for the sample include

[1] Chi-square analysis results were not statistically significant at grade 3 (gender, $\chi^2(1) = .04$, $p = .84$; ethnicity, $\chi^2(3) = .01$, $p = 1.00$; FRL, $\chi^2(3) = .16$, $p = .98$; LEP, $\chi^2(2) = .05$, $p = .98$; ESE, $\chi^2(3) = 1.04$, $p = .79$); grade 4 (gender, $\chi^2(1) = .00$, $p = .98$; ethnicity, $\chi^2(3) = .08$, $p = 1.00$; FRL, $\chi^2(3) = .35$, $p = .95$; LEP, $\chi^2(2) = .12$, $p = .94$; ESE, $\chi^2(3) = 1.33$, $p = .72$); or grade 5 (gender, $\chi^2(1) = .02$, $p = .90$; ethnicity, $\chi^2(2) = .02$, $p = .99$; FRL, $\chi^2(2) = .00$, $p = 1.0$; LEP, $\chi^2(2) = .62$, $p = .73$; ESE, $\chi^2(5) = 1.05$, $p = .96$).

two Homestead area elementary schools: one, surrounded by farmlands and residential housing, the other, encircled by migrant housing projects; two Miami Beach elementary schools in older communities: one in an urban neighborhood surrounded by clothing stores and a night club, the other, engulfed by synagogues and four-unit apartment dwellings; two schools located in Hialeah: one in a residential area enclosed by townhomes, a public school and a private school, and the other, nestled between small family homes. The last two schools in the sample include a predominately Haitian elementary school situated in an older neighborhood in the northeast section of Miami bordered by family dwellings and a charter school housed on a campus, and a two-story elementary school in the Coral Gables area surrounded by upscale family homes crafted in the Spanish architecture of the fifties.

Teachers.

The teachers who taught in the selected inclusionary classrooms at each school were interviewed. At each site, both members of the co-teaching pair, the regular education and the special education teacher, were questioned. Of the teachers interviewed, twelve were Hispanic, two were black, one was white, and one was Asian. Fifteen were female and one was male. The mean age of the group was 30. Nine teachers reported having an M.S. in Reading (n = 4), Elementary Education *(*n = 3), and Administration (n = 2). The other seven reported having a B.S. in Elementary Education (n = 4), Exceptional Student Education (n = 2), and Emotionally Handicapped (n = 1). On the average, the teachers interviewed had been teaching seven years and had been teaching in an inclusionary model for an average of one year.

Students.

The students, who were observed in the selected inclusionary classrooms at the sample schools, were taught by the teachers interviewed. The demographic composition of these students, and the virtual control to which they were matched, are displayed in Table 1. The

demographic categories and labels utilized in this study are those used by the Miami-Dade County Public Schools (M-DCPS) personnel and student data base systems.

Of the *n* = 51 students in grade 3, 50.98% were female and 49.02% were male. The largest racial/ ethnic group was Hispanic 86.27%, followed by black 5.88%. There were equal percentages 3.92% of white and Asian students. Most students were, or had been, limited English proficient (LEP): 72.55% were former LEP students and 13.73% were LEP students. An additional 13.73% were non-LEP students. Eligibility for the free/reduced price lunch program was used as a proxy for socio-economic status. Most of the students were economically disadvantaged: 70.59% were eligible to receive free lunch, 17.65% were eligible for reduced-price lunch, 7.84% did not apply for the program, and the applications of 3.92% were denied.

The bulk of the students, 80.39% were not classified as exceptional, but of those who were, most, 13.73% were identified as having specific learning disabilities. Small percentages of students were also classified as: speech-impaired, 3.92%, and other health impaired (OHI), 1.96%.

Of the *n* = 64 students in grade 4, 37.50% were female and 62.50 were male. As seen with the third graders, the largest racial/ ethnic group was Hispanic, 79.69% followed by black 10.94%, and white, 7.81%. Asian students comprised 1.56%. Again, most of the students were, or had been, limited English proficient (LEP): 60.94% were former LEP students and 10.94% were LEP students. An additional 28.13% were non-LEP students.

Socio-economically, 81.25% of the students were eligible to receive free lunch, 7.81% were eligible for reduced-price lunch, 9.38% did not apply for the program, and the applications of 1.56% were denied. Most of the students, 71.88%, were regular education students and thus were not classified as exceptional. The most prevalent exceptional student classification was specific learning disabilities: 20.31% were so classified. Small percentages of students were also

classified as: emotionally handicapped (EH) 6.25%, and other health impaired (OHI), 1.56%.

Table 1

Demographic composition of the student groups

	Grade 3		Grade 4		Grade 5	
Group	Inclusion	Control	Inclusion	Control	Inclusion	Control
Gender						
Female	50.98	48.98	37.50	37.29	42.67	41.67
Male	49.02	51.02	62.50	62.71	57.33	58.33
Ethnicity						
Asian	3.92	4.08	1.56	1.69	-	-
Black	5.88	6.12	10.94	10.17	37.33	36.11
Hispanic	86.27	85.71	79.69	81.36	61.33	62.50
White	3.92	4.08	7.81	6.78	1.33	1.39
English Proficiency						
LEP	13.73	14.29	10.94	11.86	5.33	2.78
Former LEP	72.55	73.47	60.94	62.71	57.33	58.33
Non LEP	13.73	12.24	28.13	25.42	37.33	38.89
Free/Reduced Lunch						
Did not apply	7.84	6.12	9.38	6.78	-	-
Denied	3.92	4.08	1.56	1.69	1.33	1.39
Reduced	17.65	16.33	7.81	6.78	1.33	1.39
Free	70.59	73.47	81.25	84.75	97.33	97.22
Sample Size	(51)	(49)	(64)	(59)	(75)	(72)

Table 1(continued)

Sample demographic composition

	Grade 3		Grade 4		Grade 5	
Group	Inclusion	Control	Inclusion	Control	Inclusion	Control
Exceptionality						
SLD	13.73	12.24	20.31	16.95	25.33	23.61
Speech Impaired	3.92	4.08			1.33	1.39
EH	-	-	6.25	5.08	-	-
SED	-	-	-		5.33	5.56
EMH	-	-	-	-	1.33	1.39
OHI	1.96	-	1.56	-	1.33	-
None	80.39	83.67	71.88	77.97	65.33	68.06
Sample Size	(51)	(49)	(64)	(59)	(75)	(72)

Note. Group sizes are different because matched controls were not available for all members of the treatment group. FRL = free/reduced price lunch, LEP = limited English proficient, SLD = specific learning disabilities, EH = emotionally handicapped, SED = severely emotionally disturbed, EMH = educably mentally handicapped, and OHI = other health impaired, - = not applicable.

The results of chi-square analysis, of differences in the distributions of the groups, on each of the demographic variables involved in the matching process, were not statistically significant.

Of the n = 75 students in grade five, 42.67% were female and 57.33% were male. As seen in the lower grades, the most prevalent racial/ ethnic group was Hispanic, 61.33% followed by black 37.33%. White students comprised 1.33%. Again, most students were or had been classified as limited English proficient: 57.33% were former LEP students and 5.33% were LEP students. Unlike the other grades, 37.33% were non-LEP students. As for socio-economic status, 97.33% were eligible to receive free lunch and equal percentages (1.33%) were eligible for reduced-price lunch, or were deemed ineligible. As seen in the lower grades, most students 65.33% were not classified as exceptional. The largest category of students with disabilities,

were those classified as: having specific learning disabilities 25.33%, followed by severely emotionally disturbed 5.33%. In addition there were equal percentages (1.33%) of students classified as speech-impaired, educably mentally handicapped (EMH), and other health impaired students (OHI).

Virtual control group.

As previously mentioned, the chi-square analyses were conducted to assess the group's equivalence on each of the demographic variables pertinent to the matching process. As the results of the chi-square analysis conducted were not statistically significant at any grade level, the groups may be considered comparable in terms of the demographic variables used in the matching process. In other words, the demographic distribution of the virtual control group is qualitatively equivalent to that of the treatment group.

Instrumentation

The Instructional Environment System-II (TIES-II).

The qualitative evaluative section of the study was guided by an evaluation system developed by Ysseldyke and Christenson (2002), designed to remediate perceived deficiencies in existing assessments for students with disabilities, and to identify specific teacher behaviors and classroom conditions associated with positive learning outcomes. According to the authors, the classroom observation record contained in the *Functional Assessment of Academic Behavior* (FAAB, 2002) manual serves to structure classroom observations and assess the quality of the instructional environment. In the FAAB manual, Ysseldyke and Christenson (2002) have given permission to reproduce the forms included in the FAAB. The FAAB includes data-gathering forms used in the original *The Instructional Environment-II*: *A system to identify a student's instructional needs TIES-II* (1993). The researcher used two of the original TIES-II qualitatively structured forms*: The Observation Record* and the *Supplemental Teacher Interview Questions*

contained within the FAAB (2002) manual. Both forms are qualitative in nature. The Observation Record focuses on the student in relation to task characteristics, instruction, and management strategies. The Supplemental Teacher Interview Questions cover 12 instructional supports identified by Ysseldyke and his colleagues and illustrate different ways to gather information about instructional conditions that affect student performance. The instructional supports for learning components contained within the Supplemental Teacher Interview Questions canvas instructional match, instructional expectations, classroom environment, instructional presentation, cognitive emphasis, motivational strategies, relevant practice, informed feedback, academic engaged time, adaptive instruction, process evaluation, and student understanding.

The researcher interviewed 16 co-teachers using the open-ended questions contained within the Supplement Teacher Interview under each instructional support identified by Ysseldyke and Christenson (2002) As per the FAAB manual, the researcher adapted and eliminated questions that did not apply to the researcher's constructs under study. In addition, the researcher added questions that evolved from informal teacher interviews and an initial interview, which utilized a moderately adapted version of Ysseldyke and Christenson's Supplemental Teacher Interview questions. The classroom observation guide from the original TIES-II, which examines instructional supports and partnerships within inclusive classrooms, was not altered.

Ysseldyke (2003, personal conversation) confirmed that portions of the FAAB (2003) from the original TIES-II system could be utilized in this study. According to Ysseldyke (2003), the TIES II, the revised version of the FAAB, measures what occurs during instruction regardless of placement. The forms that the researcher used from the FAAB emphasize evidence-based instructional factors that assist student learning. *The Functional Assessment of Academic*

Behavior (FAAB) identifies antecedents in students' environments that lead to "positive consequences for student learning" and provides a structure for examining evidence-based factors that predict greater academic success.

Inter-rater reliability has been established for the original TIES-II (1993). Based on validation studies of the TIES-II, all inter-rater reliabilities were found to be .80 or greater. Inter-rater agreement on exact ratings was determined to be 48.8 percent and for grouped ratings was 76.2 percent. According to Ysselydke and Christenson (1993) ratings were to be expected due to the complexity of instructional environments.

Clear evidence for the content validity of TIES-II (1993) has also been documented. Content validity for TIES ratings were also completed in general education versus special education settings. Significant differences were reported as a function of setting. Ratings of the appropriateness of the instructional environment were significantly higher in special education settings.

Florida Comprehensive Assessment Test

In the quantitative section of the study, The Florida Comprehensive Assessment Test (FCAT) battery, which forms the centerpiece of the state of Florida's accountability system A-Plus Plan for Education, was used to measure student performance. Although the FCAT contains a criterion-referenced test (CRT), a norm-referenced test (NRT), and a performance-based test (Florida Writes!), the proposed study focused only on the reading and mathematics subtests of the FCAT-NRT. Specifically designed to facilitate comparisons among individuals, norm-referenced tests are aligned on a continuous scale across grades, and scaled to a nationally representative sample of test-takers (Florida Department of Education, 2003). The FCAT-NRT, administered statewide to all students in grades 3 through 10 in March of each school year, is a secure form of the Stanford Achievement Test, 9th Edition (SAT-9). The M-DCPS concurrently

administers a parallel form of the SAT-9 to all students in grade 2 (Office of Assessment & Data Analysis, 2003). Permission to access this data, which is maintained in archival computer records, was secured from the M-DCPS Research Review Committee.

Procedures and Data Collection Methods

Prior to conducting the initial research for this study, a research proposal was presented to, and approved by the Barry University Instructional Review Board (see Appendix A), and an on-line course was completed by the researcher in Human Participants Protection (see Appendix B). Permission to evaluate inclusionary programs was gained through filing an Application to Conduct Research with the Miami-Dade County Schools (M-DCPS) (see Appendix C). Permission was granted by the M-DCPS research review board (see Appendix D). Next, permission to access data maintained in the M-DCPS archival computer records was secured through writing a data analysis request letter (see Appendix E) and completing a M-DCPS Data Quality Management Service Request form (see Appendix F). Upon approval by the M-DCPS research review committee and identification of the prospective schools through the data, permission to interview and observe teachers in inclusionary classrooms was secured through direct calls to each qualifying school selected for the research sample. Calls were followed up by the researcher through letters to school-site administrators (see Appendix G). Appointments were then set with individual teachers to review the study as outlined in a permission to conduct research contract written by the researcher (see Appendix H). The contract also granted permission to interview teachers and observe inclusionary classrooms. Signatures were secured and a calendar of interview appointments and observations set. Collaborative and instructional practices were explored using an adapted version of *The Instructional Environment System-II* (TIES-II) Extended Teacher Interview form (Ysseldke & Christenson, 2002). Classroom observations were guided by the TIES-II Observation Record. District inclusion newsletters and

program descriptions available through public Internet access at the nine participating elementary schools were used to validate, invalidate, and/ or to supplement teacher interviews and classroom observations. Multiple qualitative data methods, with-in case and cross-case examination, were utilized to examine program implementation, instructional strategies, and the philosophy and attitudes of co-teachers in inclusionary models of instruction.

The qualitative portion of the study used case study methods to examine inclusionary classrooms. Three third, fourth, and fifth grade classrooms, each in a different school, were originally identified to participate in this study. As one third grade classroom was comprised almost entirely of retained students, a replacement school was drawn. One school with a fourth grade inclusionary program declined to participate in this study. Due to the small number of fourth grade inclusionary classrooms in the M-DCPS, a replacement school was not available. Therefore three third, two fourth, and three fifth grade classrooms across eight schools were observed. In each classroom, the researcher conducted in-depth interviews with each of the eight co-teaching pairs using the researcher's adapted version of the TIES-II Extended Teacher Interview form. The same questions were asked of each teacher. Each interview ranged in length from one half to one hour each. Sixteen teacher interviews were conducted between/ and or February 1 from/ to May 27 of 2004. Interviews took place in teachers' classrooms and/ or the media center. As most interviews were conducted during teachers' planning time, the researcher decided to award each participant with a gift certificate. All interviews were recorded using a digital tape recorder and were downloaded into the researcher's computer. Interviews were transcribed by the researcher. Pseudonyms were assigned to participants in order to protect the anonymity of the teachers. Numerical codes were used to organize data and identify schools housed in the researcher's data base.

For classroom observations, the researcher observed each of the eight classrooms on two

separate occasions using the TIES-II Observation Form. Each classroom observation lasted approximately 50 minutes. One classroom observation in each of the eight classrooms under study was conducted prior to the conclusion of norm-referenced testing in March of 2004, and one observation in each of the eight classrooms under study was conducted after testing. The classroom observations were conducted to observe pre-determined constructs outlined by Ysseldyke and Christenson (2002). These were instructional strategies, classroom management, planning, and assessment. Classroom observations were used to validate what people said in interviews. The strength of case study methodology is that it utilizes multiple data sources with which to establish reliability and validity. Electronic district newsletters dated between 2002 and 2004 on inclusionary practices were used to validate observations and interviews. Analyzed, too, were program descriptions available through the Internet via school web sites to supplement evidence gathered during observations and interviews. Finally, teachers' lesson plans were reviewed during classroom observations to examine curriculum adaptations and gauge the amount of collaboration between teachers. Further, the researcher kept a log to document insights over time, patterns, and inconsistencies in phenomena. All data collected during the study were stored, per the researcher's contract with teachers and the district, on portable computer drives housed in the researcher's home and will be destroyed upon publication of the data.

In the quantitative portion of the study, student demographic and assessment data were drawn from archival mainframe computer files. These files are maintained locally by the M-DCPS Office of Assessment and Data Analysis. A full report of the results of the data analysis and any data retrieval procedures created during the analysis will be submitted to the M-DCPS research department by June of 2005.

Data Analysis

In the qualitative phase of the study, a within-case analysis was conducted at each school. Case study methodology was utilized to analyze the data. The data were coded and direct interpretation was employed. Cases were analyzed collectively to facilitate cross-site analysis. Cross-case analysis divides the data by type, across all cases investigated (Soy, 1998). In Chapter IV the results from the case study analysis are presented descriptively supplemented by prior research. Predefined categorical questions in the TIES-II Extended Interview Form and the Observation Record, helped to structure teacher interviews and classroom observations. However the researcher does not utilize Ysseldyke and Christenson's constructs to sequence or present the data. In Ysseldyke and Christenson's (2003) Functional Assessment of Academic Behavior (FAAB), the authors encourage examiners to reword and create other questions for instruments contained within the FAAB. In the present study, the researcher adapted Ysseldyke and Christenson's Extended Teacher-Interview survey. A number of questions were eliminated from each component of the original due to their lengthiness. Remaining questions were modified for clarity and included changing the word classroom to inclusive classroom and the word student to students. Other changes comprised incorporating the following four preliminary questions, written by the author of this study, subsequent to reading the researcher's adapted version of Ysseldyke and Christenson's Extended Teacher-Interview script to research participants. The following introduction was read to each participant and followed by the researcher's interview questions.

> It is important for me to understand what it is like to have an inclusionary classroom and what is it like to teach in an inclusionary classroom everyday. I have some questions about collaborative and inclusionary practices in inclusionary classrooms that will help me to better understand your experience with them.
>
> 1.) How were the teachers selected for this model?
> 2.) Who decided which model of collaborative practices would be implemented?

3.) How are teachers roles defined in an inclusive model of education?
4.) What is your philosophy of teaching?

The researcher's version of Ysseldyke and Christenson's Extended Teacher-Interview questions was then presented verbatim as follows. Questions were presented sequentially, delineated by the following format beneath each component of the Extended Teacher-Interview form as in the original version of the TIES-II instrument. The three questions at the end were written by the researcher to bring closure.

Component 1. Instructional Match

Instructional Diagnosis

1. What must a student know in order to be successful in an inclusive classroom?
2. How do you determine students' instructional needs?
3. How do you determine students' skill levels?

Instructional Prescription

1. How does instructional planning differ in a collaborative partnership?
2. What teaching methods are most effective to use in an inclusionary classroom?
3. How is instructional planning affected by your school's reading program?
4. How do you plan instruction for students with learning difficulties and/ or emotional difficulties?
5. Is there anything special or different you have to do when teaching in an inclusionary classroom?
6. Do you have a specified scope and sequence?

Component 2: Instructional Expectations

1. What are your expectations for task completion, accuracy, and neatness?
2. How do you communicate your expectations to your students?
3. What are the usual things you do when a student does not do well on an assignment?

Component 3: Classroom Environment

Classroom Management

1. What rules do you have for appropriate behavior in your classroom?
2. Who manages student behavior?

Productive Time Use

1. How much time is devoted to lesson planning between you and your partner?
2. Does each person write his/ her own plans? Do you share the same plans?

Component 4: Instructional Presentation

See Observation Record under Instructional Delivery

Component 5: Cognitive Emphasis

1. What learning strategies have you taught students with learning difficulties and/ or emotional programs to use in completion of tasks?
2. How much have you stressed thinking skills with your class?

Component 6: Motivational Strategies

1. How do you motivate students of varying exceptionalities in your class and what methods have been the most effective?

Component 7: Relevant Practice

Practice Opportunity

1. How are practice and review of content material provided?

Instructional Material

1. What kinds of instructional materials have been used with accelerated students? Students with specific learning disabilities? Students with varying exceptionalities?

Component 8: Informed Feedback

See Observational Record under Instructional Delivery

Component 9: Academic Engaged Time

1. If you notice that a student is off task, how do you redirect their attention?

Component 10: Adaptive Instruction

1. If a student does not understand the assignment, despite several attempts to re-explain the task, what do you do?
2. What provisions have you made in the physical arrangement of the classroom to accommodate learners with varying exceptionalities?
3. How have you evaluated these methods to know which ones are successful?

Component 11. Progress Evaluation

Monitoring Student Progress

1. What kinds of records do you use to monitor students' progress in an inclusionary classroom?

Follow-up Planning

1. What do you plan to teach next?

Anything Else?

1. What is the most rewarding aspect of working as a collaborative team?
2. What is the most frustrating aspect of working as a collaborative team?
3. Is there anything else that you would like to share with me?

The following qualitative Observation Record developed by Ysseldyke and Christenson (2002) was utilized by the researcher to guide classroom observations. The Observation Record addresses four categories: Instructional Planning, Instructional Management, Instructional Delivery, and Instructional Monitoring and Evaluation. Under each category, the researcher recorded observations relating to how students' performance and behavior were affected by 1.) instructional planning; 2.) instructional management; 3.) instructional delivery; and, 4.) instructional monitoring and evaluation. Also recorded was a brief description of the physical layout of the classroom and the content and goal of the lesson observed. Classroom observations were utilized to verify or refute what teachers said in interviews. The strength of case study methodology is that the triangulation of multiple data sources validate a study. Written logs,

interviews, and observations are overlaid and studied to identify unique patterns. The original constructs defined by Ysseldyke and Christenson were not utilized to define categories. Data were selected, coded, and annotated data by the researcher. Data from interviews and observations were analyzed using the constant comparative method in which, as described by Creswell (1998), incidents, comments, and interviews are coded according to the types of information revealed. These codes were compared to each other to derive a set of themes underlying each incident. The researcher names events and actions in the data and constantly compares them to decide which belong together (Strauss & Corbin, 1998). Data from each source was initially analyzed by the primary researcher. The researcher reduced teacher responses, classroom observations, and written documents to a series of descriptors and/ or statements regarding program implementation, instructional strategies, and teacher's feelings about inclusionary programs. Descriptors were then categorized into overarching variables and/ or themes, which summarized teachers' statements, the researcher's classroom observations, county descriptions of inclusionary programs, and schools' statements about inclusion. Two colleagues, a retired teacher and a program specialist, verified and challenged categories identified by the researcher. Initially, interview questions were analyzed one by one, horizontally across categories. Categories were established by the researcher through reading each response across all eight cases then reading each case individually to further identify common themes within each case across questions. Commonalities were identified through color coding responses in the interviews. An outline was then developed which listed categories under each response. Revisions were then made based upon colleagues' suggestions. Primary research questions were also redefined in response to the data collected. Secondary questions were then collapsed vertically and organized to fit the primary research questions. A second outline was developed. Next, secondary questions were sorted under each of the primary research questions.

Reliability was established through member checking by the aforementioned colleagues who assisted the researcher in sorting the interview data into categories, collapsing data across cases, and establishing an outline with which to organize the data. Validity was established through a triangulation of sources. Teacher interviews, classroom observations, district newsletters, and program descriptions available through public Internet access were overlaid to provide different ways of looking at the findings and to strengthen data. Conflicting data was noted by the researcher and included in the results section. Teacher participants were not asked to review transcribed interviews, classroom observations recorded by the researcher, and/ or narratives written by the researcher. Samples of observation records have been included in Appendix I and an interview transcript has been included in Appendix J for further inspection by readers.

In the quantitative phase of the study, repeated-measures analysis of variance (*ANOVA*) was used to separately compare the groups' achievement in reading and mathematics. The repeated-measures *ANOVA* used a 2 x 2 factorial design. This type of design has been referred to as a one between-factor one within-factor design (Becker, 1999; Stevens, 2002). The first factor represents the two levels of the experimental treatment model (inclusion versus control). The second factor represents time (i.e. the pretest and posttest measurements administered in 2002-03 and 2003-04, respectively). This analysis provided an examination of the main and interactive effects of the two independent variables (model and time) on the dependent variables (i.e., Reading Comprehension and Mathematics Applications scores). The Statistical Packet for the Social Sciences (SPSS) 11.5 was utilized to analyze and display data.

A repeated-measures *ANOVA*, creates linear transformations of the within-subjects variables. One variable is created for each degree of freedom of the within-subject factor. An additional variable is created for the average of the repeated-measures. The analysis of variance examines differences in the groups on the transformed variables, rather than on the original

within-subject variables (Becker, 1999). This process completely removes within-subjects variability, due to individual differences, from the error term. As such, statistical power is improved (Stevens, 2002). The power benefits result from the correlation between the repeated measures, which due to the transformation process are superior to that of analysis of covariance (Cortina & Nouri, 2000). Therefore, this design was sufficiently sensitive to detect a weak-moderate effect ($\eta = .12$) at conventional levels of power (.80) and significance (.05) with a sample size ($n = 83$) per group.

Summary

This chapter has explained methods that are used in a concurrent mixed-model design. The qualitative portion of this study utilized a collective case study design (Stake, 1995) to facilitate cross-site analysis in order to induce the instructional philosophy of teachers in an inclusionary model of instruction, how inclusion has been implemented, and to determine the instructional strategies utilized in an inclusionary model of instruction. In the quantitative portion of the study, the academic achievement of the students observed in inclusionary settings was assessed. To do so, the sample of students was compared to a virtual control group of students drawn from non-inclusionary classrooms in high-poverty elementary school classrooms within the M-DCPS. The results of the study are presented in Chapter IV.

CHAPTER IV: RESULTS

The results of this study, which investigate collaborative structures, educational philosophy, instructional delivery, and student achievement in inclusionary settings, are presented in the order in which the study was conducted. In the first section, case study analysis is used to describe the real-life contexts of inclusionary settings, the intervention itself, and to explore the outcomes of the intervention. Among and within these constructs, relationships were established through recombining the data to address the initial purpose of the study. By appealing to the experiences of the reader, qualitative data generated from the cases are employed to provide a greater understanding of the subject under study. Case study requires that the researcher rely upon his/ her experience and prior literature to present the evidence in various ways, using various interpretative techniques (Tellis, 1997). Themes were identified within and across cases using a method similar to grounded theory in which the researcher moves back and forth among the data and names events and actions in the data to decide which belong together. The properties identified are done so through the lens of the researcher who has already abstracted meaning from the data (Strauss & Corbin, 1998). The rich text captured in the qualitative section of this document is an authentic representation of the fluctuating cultural codes in settings within the Miami-Dade County Public Schools (M-DCPS). Therefore, interviews are presented in their original vernacular. Pseudonyms have been assigned across co-teaching partners to protect the anonymity of the speakers and remain constant throughout the document. The letters R.C. denote the researcher's comments. A detailed quantitative analysis of students' academic achievement is presented in the final section of the chapter.

During the 2003 - 2004 school year, the M-DCPS system mandated that to the extent possible, all schools should strive toward developing inclusionary programs for students with disabilities. The M-DCPS have provided support to schools through district web sites, the

M-DCPS Inclusionary Network, sporadic spot checks by the Inclusion Network administrator, and grants. In spring of 2004, the *All Students, All Schools* newsletter reported that 85 schools in the M-DCPS were awarded funding totaling over $1,658,283.00 to assist with implementation. Presently, 28.19% of M-DCPS students with disabilities are serviced through inclusionary programs. State averages in 2003 reported that 47% of students with disabilities spend 80% or more of their school day with non-disabled peers (Manten, 2003).

There are many reasons for this increase. Chief among these is the federal government's role in education. In 1994 with the signing of The America's Schools Act, Congress mandated that over a five-year period, states were to develop a set of standards, aligned assessments, and accountability systems to ensure that all students made real academic progress. A preliminary assessment conducted in 1999 by the Department of Education of four states' plans revealed, however, that three of the four states in a pilot study conducted by the Department of Education did not meet the requirement to include all students in the assessment system. As a result, the Department of Education issued further requirements for the full inclusion of students with limited English proficiency and students with disabilities in state assessments. In 2001, prior to departure of the Clinton administration, the state of Florida's plan was under review. Yet, according to the U.S. Department of Education, the new administration has not reported any change, nor taken any specific action against the 33 states identified during the Clinton administration as being out of compliance; hence, there is a sense of urgency in Florida's schools to make real educational reform. Inclusionary programs for students with disabilities are one answer to this trend. The primary question that this portion of the study attempts to answer is, to what extent, if any, have inclusionary practices impacted the learning environment of students in high poverty schools within the M-DCPS? Using case study analysis, this question is examined in three parts: collaborative structures, educational philosophy, and instructional strategies.

Collaborative Structures

The researcher wanted to investigate how collaboration occurs in inclusionary classrooms. Idol, Paolucci-Whitcomb and Nevin (1994) describe collaboration between co-teachers as a hierarchy of relationships that are transacted between teachers. At the beginning levels of consultation between teachers there may be no relationship, a social relationship only, a limited work relationship, and/ or an adequate work relationship. Co-teachers who have informed relationships and reciprocal relationships represent higher levels of collaboration. At the onset of this study, five co-teaching structures were offered in the M-DCPS. These were one-teach-one-assist, where one teacher dominates instruction; station teaching, which primarily utilizes learning centers; parallel teaching, whereby teachers jointly plan instruction, but each delivers instruction half to one group and half to another; alternative teaching, which utilizes small group instruction; and, troubleshooting where both teachers assist students as needed. Participating schools were encouraged to choose to implement one or more of these co-teaching models. A survey of the literature also suggested that in implementing inclusionary practices some schools might utilize more of a collaborative consultation model where two or more teachers are not always present for instruction, but meet as a team with auxiliary personnel on a weekly or monthly basis (Hunt, Soto, Maier, Muller, & Goetz, 2002; Kugelmass, 2001). The schools that formed the treatment group for this study were randomly selected. However, all of the schools that the researcher observed had a co-teaching model in place where two teachers are present for instruction throughout the day. Teachers also utilized a combination of the structures described by the M-DCPS, the one-teach-one-assist and alternative teaching model. Of the teaching structures operating within the M-DCPS, the predominant work relationship that the researcher observed in this study was the reciprocal work relationship. The following descriptions provided

by several teachers interviewed in this study, not only portray the reciprocal work relationship described by Idol et al. but the team teaching format observed by the researcher across settings.

> Ms. U: It's a team teaching approach. Um, sometimes we'll divide the class in half, she's teaching one skill with one group and maybe teaching one skill we'll flip flop. That's the way it's been working. She may pull her group aside and work with her group, and I'm working with the rest of the kids. And she may pull some of mine that need it and they'll be working with her kids as well. So, we try not to identify the children so that they feel that there's a difference. That's pretty much how we work. We'll decide what are you going to be doing and okay so I'll cover the spelling today and maybe she's doing the spelling and I'll pull a group and do something with them so that we try to meet everyone's needs.
>
> Ms. M: So it [*sic*] was teaching all day, both us, we taught all day. She would get up there and say something, and I would talk in right between her, and the same thing with me. I would talk, and she would just jump in as well.
>
> Mr. O: Well, when we co-teach, we basically teach together. There's like two teachers in the room. There's no role. The kids, they know they're with Ms. C, and they know they're with me, but to them it's like two teachers.
>
> Ms. L: We are both teaching. We are co-teaching at all times and we are both in charge of the class.
>
> RC: What does that mean, co-teaching?
>
> Ms. L: That means, for example, the general Ed teacher or myself is giving the first instruction, and I'll bump in at any time, and I'll add to it. For example, if she's talking about FCAT. One type of question we have is main idea. Okay, when it's main idea, what is the main idea? And, I'll think about the whole thing. What is the whole, and I'll interact with her. I try to help her enhance the student's understanding at all times. We do that at all times.
>
> Ms. W: There are certain things, certain days, I may dominant [*sic*] it. I teach a lesson, and she may piggyback on that. She may translate in Spanish because the class is not just inclusion. You know, you have, we're ESOL, we're inclusion, and we have retainees in the class.
>
> Ms. C: Oh, thank God, no one has a super great ego. [She motions to the adjoining classroom doors.] So, I can go over here and teach, no problem, or I can go over there and teach, no problem. It really doesn't matter. Nobody has super egos.

Co-Teaching models

Also observed by the researcher was that schools either implemented all-day models, or

part-time models. Of the schools observed, four classrooms (two third, one fourth, and one fifth grade) had all-day co-teaching models where two teachers were present throughout the day, and four classrooms (one third, one fourth, and two fifth grades) had part-time co-teaching models where the ESE teacher travels between classrooms within a given grade level. One teacher interviewed described the latter as a "split model." The split-model classrooms that the researcher observed were also departmentalized with the exception of one third grade model. Another feature of the split-model classroom was that these classrooms tended to have additional support from interns, teacher's assistants, or both. The general format was that as many as four teachers, the regular education teacher, the ESE teacher, and two teacher's assistants were present during one and one half hours of reading instruction and one hour of math instruction. Teachers team taught group instruction while one teaching assistant rotated the classroom and another completed paper work for the general education teacher. At the conclusion of the whole class lesson, students were separated into small groups based upon students' needs. During this time, both teachers and interns guided instruction for an assigned group of students. Work roles were also investigated.

Work Roles

Unlike previous literature on inclusionary models, the researcher found that in five out of eight classrooms observed, it was the ESE teacher who primarily delivered initial instruction, in addition to working with individual groups of students in the latter half of the lesson, or in the case of a mathematics class, assisted individual students one-to-one after whole class instruction. In one such classroom, the researcher found that an ESE teacher not only delivered the initial whole classroom lesson in the classroom that the researcher had observed, but she delivered the initial whole class instruction in three separate classrooms, reading, science, and mathematics, as

she followed her ESE students throughout the day. This is how one teacher, Ms. J, feels about her experience.

> I love to teach, and in the beginning I found myself always sitting back, you know, I was a voice in the back, I really didn't like that, I like to be front and center. So, maybe that's just my characteristic, you know, my character, I like to take over. You know for that hour and a half that I'm there, I want to do something.

All of the teachers interviewed reported that they felt that they were working equally hard and that the work was distributed equitably. In the case of the ESE teacher that the researcher observed teaching by herself in three classrooms, she felt that the general education teacher did more work.

Collaborative Planning

The researcher wanted to know more about how work and lesson planning were shared in an inclusionary classroom. On three of the regular education teacher's lesson plans, the ESE teacher had attached one page of accommodations or had written a line or two on the general educator's plans which indicated which supplementary texts were going to be utilized with specific exceptional education students. In one grade level, the researcher observed that each team member of the grade level team was responsible for writing a component of a given lesson. For example, in language arts, the ESE teacher that the researcher observed teaching a comprehension lesson, had written the grammar portion of the plan for that week. Similarly, four teachers reported that they met as a grade level team to lesson plan. Conversely, one ESE teacher who stated that she was elated that she was finally being included in a grade level team, reported writing separate subject area lesson plans. Three additional teachers also reported dividing lesson planning by subject area, whereas two teachers reported writing and planning all of the lessons for language arts, reading and mathematics because either they "knew what the students needed" or they "were more creative than the regular education teacher." Finally, three teachers reported

that they did not have the time, or in one case, did not have common planning time with which to plan together or meet as a grade level. The following teachers describe how each teacher plans for a specific subject.

> Ms. P: I teach the language arts for two periods and the other general ed teacher teaches the math, science, and social studies for the same two groups of students. The ESE teacher rotates from my room to his room, well really our room. She has a desk here and over there and we collaborate a lot. We plan together, grade together, teach together. We try to make it more like the children and to ourselves. We see it as a co-teaching setting. No so much as general Ed, ESE.
>
> Ms. G: Okay, for instance, all of the kids are put under HER name. So, I'm just supposed to be the collaborative teacher that's supposed to help? But the way that it works is we each teach like different subject areas, and we both have our own reading groups, um we both have writing groups, and then when it comes to math and science, we just flip flop. I do science and social studies. She teaches math. This whole thing has been a trial and error. You know they didn't give us what we were going to do. We had no guidelines what so ever.

Another group of teachers describe their roles as a joint effort.

> Ms. E: My role, it's a joint, shared effort. No one has any particular role. We share planning, we share teaching, we share working one on one with students, everything, I mean discipline, paperwork, grading, gradebooks, all equal parts, no one's more responsible than the other.
>
> Ms. W: I think the both of us work equally as hard. [Interruption: Loud Speaker] V has a special way of dealing with things as they come up because she's coming from an ESE background, and I'm coming from a general Ed background. In some ways, she's more equipped in dealing with various situations that may come up, delicate issues, and things of that nature.
>
> Ms. C: Actually, with the two peoples I'm working this year, we work fifty-fifty. We work together; we work as a team. We do planning together. We plan strategies.
>
> Ms. L: I don't like to define any roles. We're both the teachers in there. I help the ESE students; she helps the general Ed students. I mean she basically really targets the ESE ones. She kind of goes after what's in their IEP, to make sure all those goals and stuff are kind of met, We don't see each other as oh you're the ESE teacher and I'm the general ed so I only deal with general ed and you only deal with ESE. We deal with all of our students as a whole. Everyone in there is the same; some people just get a little bit more help in different areas than others.
>
> Ms. P: When we sit and plan we try to see okay what am I and not even so much anymore because we've been doing this for a while. In the beginning I remember it was

like okay, How are we going to divide the lesson. You kind of don't want to overstep your boundaries. If you're going to open the lesson, how are we going to teach this together. Are we going to assign this part to you and this part to me? At this point, we plan and it's like already where she leaves off, I come in. It's like, it's very natural now. But at the beginning, yes, you have to divide your lesson and say okay now I'm going to take charge of the introduction of the lesson and I'm going to take charge of the hands on activity and I will distribute materials, and assign roles in the groups. At the beginning, it's more like that.

The following teachers describe how they are included in grade level planning.

> Ms. E: We meet as a team. Actually, our fifth grade team, we meet with the math lab teacher, the science lab teacher, the other fifth grade teachers, and we all complete our bench marks at the same time. It's just how you're going to introduce it to your class. How you introduce it to your class is going to be different.

> Ms. U: The only thing that is really different is well we plan as a grade level so everyone in the grade level meet together and we discuss what we're going to you know what we're going to teach. The ESE teacher is part of the planning and I guess the only thing that would differ is that she may alter her assignments and perhaps modify her assignments for a particular student or students or some cases she doesn't.

> Ms. M: That has definitely been such an improvement because I think that when I was in ESE just as a resource teacher, I never got a chance to plan with the gen ed. It was just me doing what I though was best. There was a few teachers that I could collaborate with, but being in the inclusion model, I get to participate in the grade level meeting. I get to participate in the grade level administration planning, and that's something that I think has a good impact that I wouldn't have had if it wasn't for the inclusion model.

The researcher also found that sometimes it was the ESE teacher who was solely responsible for lesson plans. The following interviews with ESE teachers represent this sentiment.

> Ms. N: For the both of us, I write the lesson plans. Once I write them, I say, listen, this is what we're going to do, what do you think, do you have any ideas? And my job is to come up with all the activities, and if she comes up with anything I'll include it. My job is also to type them and make sure they're there the Friday before. [WOW, okay.] So we just separate it half and half—that doesn't mean that she won't give me ideas, or she won't do a lesson plan if it came to it, or I won't grade a paper—It just means that her sole responsibility at the moment is gradebook, and everything is up to date and perfect and mine is that the lesson plans are on time and creative.

> Ms. N: We separate our jobs. She is mostly in charge of the gradebook in the classroom. She's in charge of the gradebook so she's in charge of anything like attendance, attendance scams, and things like that gradebook. That doesn't mean that I won't grade

anything it means that if I grade it I'll give it to her and she's in charge of making sure we have enough grades and things like that for this week or this marking period and if someone is low she'll tell me this person is not doing well we have to do something that type of thing. I'm in charge of lesson planning. I write the lesson plans.

Another unusual finding was that both the ESE and general education teachers reported that common planning time was difficult to manipulate and was not supported by the administration.

Ms. L: This was one of our downfalls this year, planning. We did not have the same planning period. We could not plan together. [If she's with you all day, I don't understand that.] Yeah, but she's teaching all day. She's not with me at the end of the day when I have my planning from two to three. [Where is she from two to three?] She's in another classroom. So she works all day with me and from 1:30 to 3:00 she goes to a fifth grade classroom. [So, she has her planning time when?] Never. [Never? Oh my gosh.] Let's not go there. Don't ask her that. [She laughs uncontrollably.] No, it's true. So, that was one of the hardest things for us to actually get together and plan. Sometimes when the students are doing independent activities we can take five, ten, fifteen, twenty minutes depending on what they were doing and say okay listen we're going to do this, this, and this week. You know, kind of talk amongst the classroom.

Ms. G: It's difficult because a lot of times when we do have planning either, I have to go somewhere or she has to go somewhere. Like right, I'm in planning. See what I mean. So, there's so many times where we have to stay after school and we were doing that in the beginning a lot. We'd stay until five/ six and it was burning us both out. So to be honest with you, we do creative planning.

Ms. D: Planning is a really really hard thing for us. Honestly, my experience is I have never had time to plan with the teachers. For example, I have two, three classes. I have three third grade classes and I have one fifth grade. We always pull out to do IEPs and to meet with the parents. There's a lot of time when we need to move out of the classroom for thirty minutes, for forty-five minutes. The regular teacher is all by itself and there's a lot of other paper work that we have to comply with. So, planning is really hard.

Ms. W: I notice for the most part, we usually find a common ground. It really doesn't differ that much in terms of we're able to work wonderfully together and when we are able to find the moments to plan when we don't have meetings, you know, when we're not this and we're not doing that, we sit down and we, I notice that G tends to um when it comes to terms in planning she's pretty much to the mind set of what I am. We try to find engaging assignments and activities for the kids to work with one another in groups—especially for science and math. I don't think we differ that much. We're more similar than we are different. In terms of planning, we're very easy going. Some weeks she let's me plan the lesson book. We're pretty much given certain resources that we have to use so there isn't a lot of variety in terms of math, science. There are teaching methods we have to stick to.

Philosophy

In addition to the level of collaboration utilized in inclusionary classrooms, the researcher wanted to know how teachers' philosophy and beliefs about collaboration impacted their teaching practices within inclusionary classrooms. Parker (1963) states that the purpose of a philosophy is to provide a working hypothesis that can serve as a systematic guide toward gathering, ordering, and using knowledge. In this study, the researcher found that classroom observations and interviews indicated that teachers' beliefs about co-teaching, teaching roles, methodology, and strategies utilized in co-teaching were related directly to individual teachers' beliefs and represented their philosophical points of view.

Beliefs About Collaboration

Teachers' basic beliefs about co-teaching were that they could learn from each other and that in order for the co-teaching model to work teachers had to get along with each other. One teacher went as far as to say that "You have to get along both inside and outside the classroom." The following teachers expressed that co-teachers can learn from each other.

> Ms. W: I think that we learn from each other, and I think that's pretty rewarding. Mrs. G might come in and say, you know, I talked to so and so this morning and she gave me these ideas, and let's give it a try, and I like that. We learn from each other. If we make a mistake, she'll say, let's try it like this and vice versa. I think we work well together.
>
> Ms. P: I think that several opinions are better that one and if we can sit down and come up with you know collaborate different ways of doing whatever it will be better for the students.
>
> Ms. H: It's so nice to have somebody there in the classroom. It's nice to have another adult in the classroom. It's a good feeling. And, sometimes it's amazing how well we've gotten along to where she's saying something and I can just finish her thought. Or we both say something at the same time. The kids are amazed that we've both said something at the same time. And if we're working with a child, and like you say maybe they just don't get it, she'll say Mrs. O, and I kind of work over and see what she's done and maybe try to approach it in a different way . . .

Ms. M: Having somebody else to bounce your ideas off of right then, you know, or to share something great that's happening with a child, or something frustrating.

Mr. O: You get another idea from somebody else. A lot of times I do something maybe, and the other teacher might see a difficulty with a child, and they say, oh maybe you might want to show a picture of this, things that you don't realize by yourself. Other people are letting you know. Constructive criticism, may be made. Also, the kids see cooperation between the teachers, they kind of see that you can help each other to work and get a product done. I think that's important too.

They also expressed that most importantly, teachers have to get along with each other.

Ms. N: You have to work with someone you get along with. It's the MOST important part. If you don't get along, it won't work at all. You have to get along both inside and outside the classroom. You have to be like friends. That way you could look at each other all day long and be okay with it. You have to get along. If you don't, then working together won't work.

Ms. D: You have to put two people that work really good together because there's going to be days that we all have that you don't want people stepping on your toes and you know, we're all human beings. There's days that you just back out because the other person's a little stressed, what have you, because you're human, you just step back a little. You have to have that relationship with people. You know when you could approach the person, you know when you could back up, a person say something in a certain way you didn't like, you're not going to take it so personal, you're going to say, you know what I didn't like what you said in front of so and so, I didn't like the way you said it. And you have to have that with the teacher. If you don't have two teachers that get along, it's very hard.

Ms. G: Collaboration? Trial and error and just respecting each other and respecting opinions. We have a good relationship and we listen to each other.

Ms. L: You have to be very, it's kind of like a marriage. You know? It's like a marriage. You have to give and take a little bit, you have to compromise, sometimes you want to do this, but you see that the other teacher needs more time, more whatever, you have to just, you have to learn how to do a fine dance in the classroom for everything to work out.

Ms. C: The work that we do, my philosophy is we work together, we make decisions together, we [plan] together, and we do everything together like we're married. We always think like we're married. I'm really happy when two people are working. I don't have any problems with them. So, we make decisions together; anything that is considered to my students, that would be their students also, either one. We don't make any decisions without the other one. So, it's really close, the relation between, three, in this case. The other teachers, they don't have this situation, so it's different.

Ms. C: If you got a good partner, it's very good to work as inclusion. Um, I think that if you had somebody else to suffer (sic) you on your job, in your work, or, what you have to

> do, you see the product, the best result, the students, if the both teachers work together. If the co-teaching part doesn't work, it's like when you get a divorce, the children are right in the middle, so that doesn't work. Does it look good, and does it have good results for the students.

Beliefs about Children

Teachers' basic beliefs as related to children were all children can learn, encourage individual differences, prepare students for the real world, and use alternative teaching methods. The predominant belief that teachers expressed was that all children can learn. The following interview excerpts represent this response.

> Ms. P: I feel that everyone is capable to learning at different capacities or different styles but we are all capable of learning and we need to bring that out in our students.
>
> Ms. E: That all children can learn if you give them the nurturing atmosphere.
>
> Ms. H: I believe that all kids can learn but not at the same rate or even to the same degree.
>
> Ms. C: You have to think of a child, every individual child, and include the potential even higher as (sic) it really is, your expectation of the potential of the child. If your expectations are higher, then the children are going to try harder, and he (sic) is going to do better. You bring the best out of a child, that's my philosophy. Every child could (sic) do it as long as you give him the tool and you guide him along the way.
>
> Ms. U: I try to see that every child really to try to bring out the best in every child. And I like to go home knowing I've done that I've taught something and if I feel that I taught them and I see that several kids didn't get it I know that the next day I have to come in and try again to make sure that I've touched them, that they've understood. So, my philosophy is really put forth I mean my personal the way I that I feel is for me to put forth my maximum effort. And, I like to see that they do the same thing for me. When they don't do that I make it a point to make sure that I see growth and that I see progress within those students. That's not really a philosophy, that's just the way it is.

At the same time, teachers overwhelmingly stated that all one needed to do was encourage and foster individual differences. The following selections represent this outlook.

> Ms. M: I just know that I try many different strategies on the kids, and if one doesn't work ,then I try something else, something new, something different. I really try to learn a lot. I try to give them a personal style inventory so I know more about them and then incorporate that within my teaching.

> Ms D: I feel that everyone is capable to (sic) learning at different capacities or different styles, but we are all capable of learning, and we need to bring that out in our students.
>
> Ms. C: Explore. You just have to explore everything because sometimes you may teach something and it's fine and tomorrow you go back and you teach the same thing and they don't understand. If you explore activities they're more to retain a larger portion.
>
> Ms. G: Every child learns differently, existentialism, everyone learns by doing; they should pick their own thing especially in reading and the computer. Like if I see a kid, especially my behavior problem kids, loving it on the computer, especially educational things, then go with it. Anything that's going to motivate them to learn. You just have to learn, and it's hard because you don't get to know *every* single child. And, I feel with so many children, I can't do it my best. Especially this classroom, there's just so many kids that have so many problems at home, and I know about all their problems. I know the serious problems, but the other ones, maybe like the good ones that are quiet, I don't know what's going on with them. They seem like they have it together but, I mean in the BAC [Bertha Abba Center], it was a two teacher model with fifteen kids, and I knew all those kids inside and out, and I knew what it would take, everything. I knew their parents very well, I knew them. So I thought I was doing the better job.

Finally, two teachers' believed that they needed to prepare students for the real world and/ or relate teaching to students' real-world experiences The following passages characterize this opinion.

> Mr. O: Philosophy of teaching for me is basically to prepare children to go into the real world and not only, it's not necessarily career oriented, but also like to enjoy themselves; because, for example in reading, reading is not only to know how to go to college, because you have something extra to enjoy yourself with. I figure if they enjoy education and the things they learn, it is easier for them to do whatever they decide to do when they grow up.
>
> Ms. H: Like if I know there's someone who likes cooking a lot, I try to bring in maybe recipes and then do poems with recipes and try to do stories with recipes, just to get their interest. With the boys they like to read about cars or motorcycles. You know we come here, expose them to the library, try to introduce them to things that they are familiar with.

Beliefs about Students in Inclusionary Classrooms

The researcher wanted to discern what teachers thought students needed to know in order to be successful in an inclusive classroom. A majority of teachers interviewed felt that students needed to have a prerequisite of social skills. Social skills meant that students were able to listen,

follow directions, and were social and outgoing. Another pre-requisite skill that teachers felt students needed to have was responsibility. Teachers felt that students had to be responsible or act responsibly in order to be successful in inclusionary classrooms. Conversely, three teachers across three grade levels believed that academic skills were the most important attribute for an inclusionary classroom. Thus teachers' responses ranged from having reading readiness to basic computational skills, to knowing how to study. The following interviews provide a snapshot of teachers' experiences with social skills, responsibility, and academic readiness in inclusionary classrooms. The first interview pieces represent those teachers that stated that students in inclusionary classrooms needed to have a pre-requisite of social skills in order to be included in inclusionary classrooms.

> Ms. M: I think that one of the kids that we had this year that was really successful, even through academically he was very low, the fact that they were social really made an improvement because even in cooperative work, he was academically a little lower, but the fact that he was social, that he was willing to participate, that made a difference. I would probably say that socially if they were a little bit more outgoing that might help them out a little bit.
>
> Ms. D: The child has to work hard, [has] to get along with [others,] and [has] to understand that we are all human beings, and what you might [need] help [with] I might not, you actually work together. They have to collaborate [with] one another, not [make] fun of each other, you're stupid, oh forget it.
>
> Ms. W: What they must know is, and it's something that we work on faithfully, every single day, is they have to know that they need to know how to know their strengths and their weaknesses and know how to follow directions and how to realize that school is a place that you come to to know how to learn. Okay, you can have friends, socialize; you can do many different things. But the ultimate goal for you is to learn something each day that you did not learn before and take that experience with you and take it to the next level. Everyone knows that in elementary, everything that you ever learned you basically learned in elementary. You just branch out; get more detailed as you go along. The foundation of education is grounded in elementary school.
>
> Ms. G: Some of the kids that are in my classroom, they shouldn't be in inclusion, at all. And, I have a child that's not correctly medicated right now. He was and then they changed it, and he's just (sigh) bad, just bad. You know, he starts spitting on the floor, you know, just a lot of inappropriate behaviors and temper tantrums every day. This is an

> inclusion classroom and they say that we shouldn't restrain in front of the regular children, but I've had to.
>
> R.C.: Okay.
>
> Ms. G: I mean like they're kicking, screaming, you know?
>
> R.C.: Yes, I do.
>
> Ms. G: What am I going to do?

Other teachers expressed that students placed in inclusionary classrooms needed to be responsible for their actions.

> Mr. O: They have to be responsible. I think they have to be responsible for their own actions. I also promote a lot of competition within yourself. You compete against yourself. You don't compete against anyone else. That is while you're here.
>
> Ms. L: They must know, that at least as far as that for me, self-motivation is extremely important to me. If I see that they're motivated, they're trying. It gives them an advantage, I would say.
>
> Ms. P: They need to be aware of my expectations which I make extremely clear to them and have some responsibility for their actions.

Whereas, another group of teachers felt that students placed in inclusionary classrooms need to be academically prepared. The first interview segment from Ms. J expresses the need for academic readiness and provides a snapshot of teachers' concerns about motivational issues. The other two responses illustrate the need for academic readiness.

> Ms. J: I don't feel that every student is made for inclusion. They have to be at the top of their gain. They have to be at the top of their disability in order to succeed obviously. . . . I have a girl in this class particularly, that's on a kindergarten level. She doesn't know the alphabet. . . . That makes it really, really difficult because if she doesn't know the alphabet then she can't spell any of these words. She can't read. . . . It's not a language barrier. . . . She's going to be twelve. . . . They want me to expose them to fourth grade curriculum and what have you. . . . . Another student, no motivation whatsoever, very lethargic, you know whatever. Life is just life, and that's that.
>
> Ms. C: What they must know more is, for example, the reading part is what helps them the most, because if they have problems reading, comprehension problems, they will have the same problems in math, because at this level they use a lot of word problems so if they don't have the comprehension then either in reading or math that would be like the

> bottom line to have a good reading comprehension. That's a big goal for this grade. In fourth grade they work in writing.
>
> Ms. S: Ooooh they must know lots of things. Um, obviously it's helpful if they already know how to read, if they know how to decode, if they have good learning skills, organizational skills—if, um they know how to be independent on whatever we are doing-- Obviously, the basics like multiplication tables, addition, subtraction, multiplication, simple division. Obviously, we're in a fifth grade classroom so we need to do much [higher] learning of math than just plain division. We do more of the application of it so, it's very difficult, and if they don't get the basic facts, the multiplication facts, then they would have a very difficult time doing the stuff they need to do.

Similarly, the importance of academic readiness in Ms S's teacher's fifth grade inclusionary classroom was disclosed to the researcher when asked what she was going to teach now that FCAT was over. The following interview excerpt illustrates the need for students who are placed in inclusionary classrooms to be close to grade level.

> Ms. S: I have a very serious plan. It's called everybody has to read by the end of the year. So what I've done is I've already tested all of them. I know where they are. I'm getting ready; I'm doing phonics surveys to see phonetically where they are at. I already have them in groups. I know what stories we're going to read. They chose them themselves. And what we're going to do is one group is going to be the higher group and maybe involved in other classes where they are higher learning more like TEAM, you know? The teachers in fifth grade we work very well as a team. And I know that they have some that don't read at all either. So I think what we're going to do is kind of a switcheroo for the rest of the year like during reading time and I'm going to get the ones, they don't read. I'm going to have a group that they need to do phonics like t they don't know that it is *ta ta ta.* So we're going to go back. [WOW, I remark.] I warned my principal. I told her I understand that we're been preparing for FCAT and that's very important but now don't come to my class because what you are basically going to be seeing is first grade work. It's sad but we have to do it. If not they're going to leave elementary school without any knowledge. At least these kids are at 0.5 months into pre-k. Um if they could at least get to first grade, second grade level, at least they'd read something because some of them don't read anything.

Finally, an ESE teacher at another school remarked, "They need to know that we're here for them no matter what."

Assimilation of School Beliefs

An unanticipated finding that the researcher discovered through interviewing teachers was that four of the teachers interviewed had incorporated the philosophical underpinnings of the

overall philosophy of the school and/ or had incorporated a philosophical point of view such as existentialism into their teaching practices. “I believe in existentialism,” one teacher remarked, “Everybody learns by doing; they should pick their own thing, especially in reading.” In examining school documents, the researcher found that the schools mentioned also advertise specific theoretical perspectives through school web sites. Descriptions ranged from providing an academic atmosphere to fostering collaboration between staff to connecting with the “global community.” The following description represents how one teacher has assimilated the philosophical tenants of the Comer Model established at her school site into her teaching practices.

> Ms. W: We model things like on certain levels, what we say to the children is, Okay there is a unique situation, we have two teachers, you see that Mrs. IM and I are working wonderfully with one another. You know, we work a lot of the Comer into it. We say we collaborate with one another, we’re very no fault, we don’t blame one another, we try to get along, we cooperate and try to get things done, and you know, try to see what is the positive outcome out of different situations. So, that’s how we try you know, we tell them, we show them, we, hopefully by example [You keep referring to the Comer Model. Who was Comer?] He was a psychologist. His philosophy was this was a Comer school, which means a no fault environment. Some of the main focuses of Comer are collaboration, cooperation, um,um, you don’t get into the name-calling and the blaming game and whatever. To the best of your ability, you try to um what also branches off of Comer is working to a schoolwide thing which branches out into the community and then you take it into your home life and you know, it’s just a philosophy of “do unto to others” basically, whatever. You know, everyone wants to be treated with respect and dignity and you want to be heard and you don’t want them to just accuse you and find the negative things about you. You know, kind of seeking those things out, you want them to find the positive and encouraging things in life.

Instructional Delivery

In order to ascertain how classroom instruction impacts students in inclusionary classrooms, the researcher continued to draw from predetermined constructs utilized by Ysseldyke and Christenson (2002) which measure instructional supports. Ysseldyke and Christenson believed that placement in a particular program was not necessarily an intervention in and of itself. Therefore they measured what exceptional education students (ESE) required in

order to be successful in regular education classrooms, what needed to be manipulated to produce a better response, and identified which resources were needed to assist ESE students in regular education classrooms. The following interview questions utilized by the researcher represent an adapted version of the extended teacher interview developed by Ysseldyke and Christenson. The researcher also collapsed the constructs and redefined them to provide a focus and to develop insights related to the researcher's original questions.

Assessment

One of the first constructs identified by Ysseldyke and Christenson (2002) is assessment. When planning educational interventions, Ysseldyke and Christenson believed that teachers who relied solely on standardized test data may be shortchanging students. They also caution that reasons for students receiving the same score on standardized tests may differ. Similarly, testing observations that have been conducted one-on-one with a student may differ from a student's actual classroom performance. For students in this study, placement in inclusionary classrooms was predicated on the number of ESE students at a given grade level. Included with exceptional education students were lower achieving regular education students whose placement in the classroom was based solely on standardized achievement data. Conversely, co-teachers reported that at the beginning of the school year, the instructional needs of the students in inclusionary classrooms were primarily determined through beginning of the year diagnostic assessments, observation, or a combination of prior instruments and diagnostic inventories. Diagnostic assessments ranged from reading and math pretests to computer-generated programs to more formalized diagnostics such as the Woodcock-Johnson. The following teachers describe using beginning of the year diagnostic assessments as a determinate of instructional practices and grouping within the classroom.

Ms. L: We started the year with all these vocabulary tests, reading tests, diagnostic reading assessments and stuff, to see what level they were reading at, what level was their vocabulary at, where, what were we starting at. Once we determined that, we kind of based them, put them in groups where we could kind of move them like up through a spiral or up through a ladder. The higher group, I would try to keep that together and then I would try to match you know a student from a higher level reading that was lower and kind of buddy them, pair them up and that helped them a lot.

Ms. N: We do a lot of umm pretests at the beginning of the year. But regardless, I've had them since first grade so it's very easy for me to write an IEP and put a goal when we have just been increasing goals step by step by step since first grade. It's very easy for me.

Ms. S: Um, we have a lot of things in our school. For example, we have software. For example in reading they have the Accelerated Reader which gives the STAR test, and the STAR test gives, basically, it's a diagnostic test on the computer one-on-one. The child does the test on the computer and it basically runs all these diagnostics on the child. It tells you, what is the independent level, grade equivalent, I mean, on and on and on, and it even tells you specifics. I mean if they don't now the first sight word list, if they don't know the second sight word list—Plus, I'm talking about we do DRA, we do bench marks, which also give us the good idea where the child is. In math we do a lot of FCAT pretests where we basically figure out, and we also do a software program called CEI, um, in math and in reading also since our inclusion class is the lowest class in fifth grade, we get the whole class tested and the lowest I think 25% of my class does it on the computer where they are one-on-one. The computer knows, okay, this is Tommy, Tommy knows how to add and subtract, but he doesn't know how to multiply, so therefore it says, why not teach him how to multiply, and it moves him up as fast as he goes, and it reaches a point where he knows something, and it continues going up, and if it needs to go down, it will move down. So basically it calibrates itself.

Ms. J: The Woodcock Johnson what is the word identification and passage comprehension. I also do a math, a Key Math exam, because I teach reading, language arts, and mathematics. That way there's other books besides what they're learning in class that I have them work on for homework. That's the exposure they get.

Ms. D: Actually, we use teacher-made tests, and at the beginning of the year, we give them reading tests. I don't recall the name of the tests. It tells you the level of the child, the spelling level of the child, reading the fluency, the comprehension. It's a battery of tests, but I don't remember the name of it.

Ms. E: We take the scores from like computer programs, AR test levels, uummm, like pretests at the beginning of the year to see where they're at, and we build from there, and sometimes you have your lowest kids, obviously, and your high kids, and you can start in the middle, and we challenge the lower level students, and the higher level students, are going to be able to pull them up by assisting, and then we build up from there, the middle ground.

Whereas several other teachers report using observation to determine instructional needs.

> Ms. U: Pretests do not always give you accurate data because sometimes the kids just don't do well on them.
>
> Ms. P: I would say more than anything, observation. If I for example were to give a test and I were to see, er, that um, I don't know, we're doing poetry and so and so continues to fail my exams. I need to meet with that child and see what's happening and maybe modify an exam, maybe go back and re-teach something. I think that's where I get a lot of my insight on how they're doing, whatever, if there's anything that I need to re-teach and go back.
>
> Ms. G: Just getting to know the student, knowing what their level is, and knowing that some children just need more than others, and you have to give those attention, give more attention to those kids. And, then as far as the ESOL, give directions in both languages.
>
> Ms. H: Pretty much by the testing and what I see them doing in class, with just classwork not being a test.
>
> Ms. W: On a case-by-case basis. Well, we know some children, um, their instructional needs vary. Some children are able; we try to allow them to work in groups with one another.

A third group of teachers expressed that they use a combination of prior assessments and diagnostic inventories are used to form cooperative groups.

> Ms. C: We PIAT all of them at the beginning of the year. [What's that?] A diagnostic test. An evaluation of their testing to see where they're at. And, then the consultation with the teacher who had them last year.
>
> Ms. P: At the beginning of the year we go into the previous tests. They came from second grade, so we look at the SSAT. We went through that. We determine how their reading levels are through that. The SRI scores, and we also in the first semester we see what kinds of grades they get, and then we kind of put them in three levels: low, medium, and high.
>
> Ms. M: I definitely, as soon as we go through the whole referral process, I take a look at the psychological. I figure that if they go through all this trouble testing this child, we should really take a close look at that, and then like I said, in addition to that, I like to give my own tests. And like before, in the resource, I really like to give them an informal reading inventory so I know exactly where they're at. I like to do student interests, I like to do their multiple intelligences so that I see what type of learning styles they have. So, all of that guides my instruction so I know how they learn that and what's going to benefit them the most.

> Ms. U: At the beginning of the year, you know, you try different strategies with the children and you start to learn a little bit more about them. Sometimes I may go back and ask previous years' teachers, you know, how did so and so do, if I see that they are struggling. And, then we move the children around, and I like to do cooperative learning with the students only because those that are not as able to do some activities are able to participate, and then they're not shy anymore because they're working in a group.

For many of the teachers interviewed, in-class instructional groups were formed based on such assessments.

Accommodations

Another question established by Ysseldyke and Christenson (2002) and posed by the researcher was if there was anything special or different that teachers had to do when teaching in an inclusionary classroom. Brown (1968) found that in many cases there is a discrepancy between what teachers believe about educational practices and what they teach or fail to teach in the classroom. He also found that where there is a discrepancy between educational beliefs and classroom practices, there is a discrepancy between educational beliefs and basic philosophical beliefs. In this study, the researcher found that teachers believed that in order to teach in an inclusionary classroom one had to utilize different strategies, slow down the pace of instruction, and learn how to work with one's partner. When teaching in an inclusionary classroom, the following teachers expressed that one must utilize different strategies.

> Ms. C: To be specific, on the difference, is the different strategies . . . We use different strategies and different materials to work with them. They are under programs also. Dade County bring programs for them to improve comprehension, phonics, pronunciation, so the ESE [students] bring in different strategies.

> Ms. M: I try to do a lot of what catches their interest. I know that, bottom line, most of my kids don't like reading because they've had bad experiences with it. They don't feel they're good at it. So I try to present materials to them that [catch] their attention. Like, if I know there's someone who likes cooking a lot, I try to bring in, maybe, recipes and then do poems with recipes and try to do stories with recipes, just to get their interest. With the boys, they like to read about cars or motorcycles. You know we come here, expose them to the library, try to introduce them to things that they are familiar with. In that sense it does affect what I'm using. Even the computer, some kids, they don't want to write. Sit them up at the computer, they'll write. So, I incorporate a lot of technology in that we

have a lot of the Co-writer software, predictable software that the kids enjoy using, and I see that they're writing style has increased instead of just giving them a paper and pen. Well, I do try to look at their little individual needs and I try to accommodate.

Ms. H: We pull from everything; at least I feel we pull from everything. We do games, we, we're like ACTORS. Sometimes you're silly, trying to get attention, to have things sink in. Try to use the real world, their real world experiences to relate to whatever we're doing. And, I really like the cross curriculum stuff. Because I think when the kids see that this is not just in math, but it's science, and it's in language arts, and importantly, it's in our life. Then they connect that. And that makes learning meaningful.

Ms. S: You have to always be more in tune with, and focused with, the different learning styles. A lot of these kids, for example, are very visual. So I find myself drawing pictures more often, or using things like videos, um stuff that they could relate to, that they would be able to understand, make the connection that they need. Many of them don't even have the background information or knowledge to understand most of the things I teach them. So I have to scaffold a lot; build background for every single little thing I do. Um, I use a lot of graphic organizers. It helps them organize their thoughts, and then they could use this to write summaries or whatever. It is the graphic, if organizing, um a lot of manipulatives, especially in math. We use a lot of hands on. It has to be all the time because when they get it with the hands on then they're going to go on and be able to do it in the abstract.

One teacher, Mr. O, expressed that one must slow down the pace of instruction when teaching in an inclusionary classroom.

Mr. O: It differs in the sense that the speed that we're going in this classroom is not as fast as the next class. The class that we have next door is the gifted class. So, what we do is I do the lesson plans with Ms. I [the ESE inclusion teacher] according to the speed of the children themselves. If the class next door is two stories down ahead of us and we're behind, it doesn't matter, we go at our own pace. If we have to skip around, and plan differently, then we do it. We do that too.

Other teachers felt that the one thing that was different about teaching in an inclusionary classroom was that one needed to learn how to work as co-teachers. The following provides examples of this sentiment.

Ms. J: The only thing that I would say is different, and it's at the beginning of the year, is it was difficult for me, first time teacher in an inclusion model. I was thinking, oh, I'm going to have my own classroom, type dream thing. The biggest challenge for me was that I work with four different teachers. So, I follow my students. It's four different teachers who have four different teaching styles, four different completely different characters, and so it was a matter of getting use to the way they teach and their mannerisms. You know, how far, how much I can be involved; because, some teachers

> don't like that I take over. They would rather me pull my kids out, and I don't agree with that. Then what's inclusion for? So there was a lot of, what's the word, differences in the teaching methods. There were differences because they're teaching to their students, their style, and there's ESE kids. I mean, that's what I'm there for. Again, I do not agree with pulling them separate from the class. I want to be exposed to everything that everyone else is.
>
> Ms. W: She's a tremendous asset to the classroom in terms of some days she may feel like teaching, and some days I may feel like teaching, and vice versa, and you know I may let her dominate the lesson, and I may circulate around and make sure that they're on task and help them out and assist them and things of that nature and vice versa.
>
> Ms. P: You have to be open to suggestions, and like we were just talking about, you have to have empathy. You have to realize that same thing. If you want 100 percent, everything the same, then this is not a program for you. You need to be aware of diversity, and the different needs. There are going to be differences, and you need to be willing to accept those.
>
> Ms. L: You have to be very, it's kind of like a marriage. You know? It's like a marriage. You have to give and take a little bit, you have to compromise, sometimes you want to do this but you see that the other teacher needs more time, more whatever, you have to just, you have to learn how to do a fine, dance in the classroom for everything to work out.

Expectations

Correspondingly, expectations for student performance varied, too. Both general education and ESE teachers expressed that they treated every student the same and expected the same level of participation and effort from all students, whereas a predominance of ESE teachers reported that their expectations for student performance differed in that different students had different goals and abilities. Therefore it would be expected that teachers would have to individualize instruction. The following teachers reported treating everyone the same.

> Ms. D: We treat them the same way that we treat the regular students. . . . So, when I talk to them, I say, Listen guys, you are capable [of doing] many things. You are capable [of being] responsible, you have abilities to do many things. So, you must do it. You must bring your homework every day. They have homework like everybody. They have folders [they're] suppose to bring back in a day. Neat, clean, in order like everybody else, because what they have is learning disabilities. Anyone of them, they [are not], mentally [handicapped]. It's only learning disabilities.
>
> Ms. G: There are some students that have problems with their fine motor skills. So we stress that we expect them to write neat, and we try to give them little things that

supposedly get you to write neater like that big fat thing around the pencil. We expect all of them to hand in things neatly, and if they don't they have to do it over.

Mr. O: I do have students with learning disabilities and even if they are saying things that are out there, you know, I tend to call on them more. I tend to have them read more and if they do say something, I say, Okay why did you say that? We just try to go over different strategies.

Ms. L: I have given things back if they're not neat, even if the heading is not correct they have to do it again.

Ms. C: Neatness for me is a big thing. I would rather, for accuracy, because we do everything in steps, the kids can go back and see where they make their error, as far as accuracy go. For language arts, the same thing, we do steps.

Ms. H: Neatness is necessary. Accuracy just tells me how well I've taught it. So, I expect at least 80% to show me that they know what I've taught, and if not, I have to reteach, and it depends, if it's just one or two children then we'll do a small group or after school. But, if it's half the class then I know that I haven't done my job. No, not that I haven't done my job but I need to do something else, and then you just revisit that area.

Ms. L: I expect all of them to participate. Some of them don't like to they feel awkward. They might not say the right the answer. I call on students that raise their hand and that don't raise their hand. No matter what they tell me. It could be something wrong, and I try to tie that into what we are talking about.

Ms. S: In my class, the biggest thing is that I expect the same from the ESE as I do the regular child. There is no difference, and I never make them feel different. Anytime that I have, for example, vocabulary words, on Monday, they know that the green words are the ESE words, so they know, and then red is everybody knows that green and red is for the everybody, for the regulars, and special Ed, just do green. So they know that, they're trained. So they know. And, homework, everyday, every week is the same homework for vocabulary, like on Monday, you have to put in alphabetical order, on Tuesday, you have to do vocabulary maps, etc., etc.

Ms. E: They all have to participate. You know, it's funny, you would think that they wouldn't want to participate, but they do, and we've never discouraged it. Like my ESE students ask to read aloud and I say, read this problem. Who wants to read problem number four? And, they want to read it. And, I'll buddy read with them, and I've seen that my students, their peers say, oh L wants to read. Oh, okay, and so and so wants to read, and they'll read, and they'll mimic. So I don't discourage them. If they want to do it, that's good.

Mr. O: Um, basically what we do here is everybody's treated the same way, but if a student doesn't know how to read, let's say is very low in reading we do a lot of group work with them. A lot of times we get tutors and maybe we could pair them up with a tutor, one-on-one teaching with them. I don't really change lesson plans a lot, for one

student, what I do is modify whatever I teach. I kind of like modify the way I teach it to them.

A predominance of ESE teachers reported that they expected differences among learners and individualized instruction.

> Ms. N: We have, like I said, at the beginning of the year, or when their IEP comes up, I sit down and I explain, these are your goals. And, we review them, and [Are] there any questions, Do you not understand one of your goals? I have students that have no academic goals. They just have behavioral goals, and I review them with them, and when they mess up, [ask,] What [were] your goals, then, well, my goal was to make friends. Is this the way you're going to make friends? No, how can you make friends? And, we review them whenever we see a slip up. Remember, that your goal was to improve your writing. J, you're doing a good job. Look, you got an A in today's writing assignment, but to improve it, you need to do this, this, this, and this [toward] those goals.
>
> Ms. J: It's all individualized. Um, I have a student in the other class who is receiving occupational therapy. His letters are just illegible, so it depends on the student. It really does as far as how much they can conform.
>
> In general, task completion, I definitely use um my accommodations for that . . . So, I do accommodate according to their needs. When it comes to neatness, I think that is important. I understand that some of my kids, because of their fine motor skills, and visual processing, are kind of messy, but I'm flexible according to their needs.
>
> Ms. S: Organization is very important. I try to teach them always to have a folder for subject, that's always open. And when you're beginning the lesson, okay, take out your language arts folder so that's there's no time wasted. Teaching them even to keep their thoughts organized. You know, what did you think first. Sequencing is important with everything. I've learned that I have to break things down lots, more, in smaller bites.
>
> Ms. P: Again, it depends on the child. I may have a general Ed student, or even an ESE student, it doesn't matter, who is always very neat and organized, whatever. If that child turns in something that is all over the place, then I would be, Whew, what happened? Maybe the child was upset, maybe the child didn't sleep well, maybe. I have received work that's, a, pretty messy and sloppy, from a student whose disability might include difficulties with fine motor skills, and it's perfect work, as far as the responses. I accept it. I accept it. I'll try to maybe let him type his answers instead of writing it, record his answers, stuff like that.
>
> Ms. M: I definitely go, myself, by their IEPs. I want to make sure that I'm covering their goals and objectives. Okay, because in the end, that's what we're responsible for that they're meeting those IEP goals. I do plan a lot using their IEP goals. That does affect my instruction. I do a lot of accommodating. I know if I present a lesson to my kids and have an ESE child who's not getting that level, I accommodate so they're participating and I'm still meeting their goals on their IEP's.

Instructional Planning for Students with Special Needs

When questioned about planning instruction for students with specific learning disabilities and/ or students with emotional handicaps, teachers reported that they had to modify curriculum, to consider classroom management, and to group students according to students' needs. Modification of curriculum meant everything from slowing one's pace of instruction to assigning a smaller amount of words or problems for students to solve to incorporating problem conflict resolution activities into content area curriculum such as social studies and/ or mathematics. The following excepts represent how teachers modify curriculum for students with specific learning disabilities and/ or emotional handicaps.

> Ms. W: Children with learning disabilities and/ or emotional difficulties we tend to try to especially with the social studies, we work on quite a bit of conflict resolution and problem solving type of techniques and skills like real life type of problem solving. Even with the math, we try to bring real world type of situations type of thing. So that's how we plan and instruct with the children because whether their coming from a very tumultuous household where there are a lot of issues going on and things of that nature, I notice that the same thing that is effective with our ESOL students, ESE students, and the ones that are repeating the grade level, it's across the board because when you do these different things it tends to cater to all the children and it meets them on wherever they are. You know, it seeks them out where ever they are to be engaged and that's our ultimate goal. You try to educate them, yes, but if you can't capture their attention then that's it.
>
> Ms. H: There's like this one little boy. He came in maybe the second week of school, and he was so angry and so disruptive. I've never sent a child to the principal's office on the second day of them being in my room. But this child went and that second day I realized that well he didn't need my anger towards his behavior. So, instead we filled him with kindness, you know, and it worked. He calmed down, he participated. It just took those two days for us to say, yes, this kid, he needs something. So, we had to make accommodations for what was going on in his life, with his needs because he had such low self-esteem. This was his second year in third grade and he couldn't read. He couldn't read. So, even though he was a good auditory learner he couldn't write well enough for third grade, or read well enough for third grade.
>
> You have to lower your pace and slow it down and kind of stop and ask a lot of questions and answer questions and make them kind of take the role okay ask yourself the question, what's going to happen next? You have to take it slower is what I feel with my kids.

> Ms. S: We are departmentalized, but my class is self-contained. So, what I do is basically I do regular lesson plans because of the whole Florida thing. We do have to teach at grade level. So, I can't teach them at a first grade level, even if they are on a first grade level because of the fifth grade curriculum. So, lesson plans are usually just like the rest of fifth grades' lesson plans, and I accommodate, for example, five vocabulary words while the rest of my class has 10--in numbers, in the length.
>
> Ms. J: We're all a fourth grade group, and we all get together and we all plan, and again, I have to follow that curriculum, and again, I have to accommodate as far as how many words they're going to have, their homework activity. It will be as vigorous. It will be more entertaining, what have you. I have to go with their base materials and then add on.
>
> Ms. E: Like let's say she [taught] estimation yesterday and nobody got it. I have to come in here with my volumes of information and find something that simplifies estimation for the students and then come back again tomorrow and maybe do a little mini lesson first thing to make it clear. Give them their paper and see how they work through it and then they'll give it back to me and I'll go through it and see who needs help, then pull those groups to a table on the side.
>
> Ms. N: For example, what I do is basically I follow the general education teacher, but the goals that he had, he needs to reach for that nine [weeks]. What I do is modify the curriculum. We use a curriculum that had been modified for math and reading because if he had, or she had, a goal in the classroom, I have to take that goal and I [have] to break [it] into strategies that can permit that my students reach the same goal of the regular education students. Sometimes they don't reach [that goal]; we have to keep working on the same goal in some cases. It depends on each.

A key strategy reported by teachers was grouping students according to their needs. The following interview pieces represent this approach.

> Ms. L: It depends on the group that we have. For example if we have kids that they do not work good together then I'll talk to the general Ed teacher and we'll rearrange the room to the needs of the child. For example you saw the round table in the back. That's for the small group. That way we have a place to pull them out.
>
> Ms. W: A yes what I notice is that with some of these children proximity control really doesn't work so in terms of physical arrangement, in some cases if some children have to be moved from the other ones their that disruptive and they're seeking attention, negative attention, things to that nature then in some cases we just have to move certain students for their own, I'm trying to look for the word, to benefit them. They can't handle working with others and they're going to be disruptive. It's better for them to be by themselves so they can concentrate on what they have to do.
>
> Ms. J: I make sure that the kids, the teacher that was here before me teaches inclusion differently, she had her students all in one table and she worked with her teacher and

there was the other teacher. Mine are scattered. You'll see, you won't know who's who. Just like I help mine, I'll call on someone else vice a versa.

Ms. P: We try to have cross grouping, very heterogeneous. If we have a student that we KNOW has a behavior problem then we try to keep them close to us without them knowing why we're sitting there or saying you can't behave so that's why you're sitting in this group which is the group that's closest to our desk. Without saying that we try to group them and sit them in the place that we feel is best for them.

Effective Strategies

Teachers reported that the most effective teaching methods were the utilization of specific student-based strategies, instructional groups, and the organization of the teachers, or as one teacher described it, "taking turns when we teach." The researcher found that strategies in inclusionary classrooms were either hands-on or text-based. Hands-on strategies included games, music, experiments, software, dramatic play, and centers. Text-based strategies included reciprocal reading, modeling, repetition, integrating curriculum areas, providing real world applications, and study skills. Further, student strategies addressed a multiplicity of learning styles for visual, auditory, and tactile learners and second language students who need reinforcement through dramatic play. The following quotes from a variety of teachers provide examples of hands-on strategies used to address a multiplicity of learning styles.

Mr. O: Uh, discussion. We do that. Also, uh, a lot of questioning, a lot of questioning. For example, why do we learn this subject? Why do we do this? I also try to use the computer, the technology, I try to blend into the Internet and if we're talking about the, let's say the redwood forest, I try to go into a website where we can actually see the trees, or so I can show them what it looks like.

Ms. J: Let's see, when it comes to reading, in their book, they know to highlight, I tell them to write notes in the margin, like whatever we discuss. Write notes in the margin that's one with reading, language arts, when I teach language arts it's a lot of hands-on. I'll bring out the construction paper, or if we're doing verbs, I had everyone act out something. So, it all depends.

Ms. M: I think a lot of the reading strategies. We definitely talked about visualizing before you read. Think about what you're going to read and turning on that little TV. We do a lot of acting out in the class. And I think that's also helped them a lot.

Ms. W: Well, seeing how children, you know, this is a generation that they are very much into pop culture, so one strategy that I know we use, we're very big on hands on, the kids love to use manipulatives, so we, quite often they will use manipulatives for math and science. In terms of social studies and science, uh, since we moved in this room, now we don't have a television or VCR. When we were in our old room, we would make sure that they watched science videos, we would play the cassette, but now that we're back into the science and social studies text book, we deviated a little bit from it because we wanted to do some other things, and we had some other special projects to work on for science and social studies, because we're also a technology class, also. We're Family Tech, so . . . [What's Family Tech?] Family Tech is a program which essentially means that they want to get more involved with using technology in the classroom and even at home. So it's a program that's been going on at school for several years now. This is my third year working along with Family Tech which means that the children, the parent and the student must go to a family meeting here at the school and when they attend that meeting, they actually get a computer. It's not a new computer, but you know an old, but nonetheless they get a computer to take home. And, the purpose of that is so when they have homework they can use Internet. They have Internet to use at home and things of that nature. What it is is that students have to work on the computers, we have to keep folders, the purpose of which is to put work in it, and they have to go to the media center, to work on lap top computers as a whole class. Exactly.

Ms. S: We have some students that are extremely, extremely below curriculum. Like some don't even have letter recognition. And what we do with those children is that they have to be included in the regular curriculum. So we do teach them what we teach every other fifth grader but at the same time we make like the software is very helpful because it's on their level so we will give them more time doing Success Maker which is a program in reading and in math which calibrates where they are and where they're going and um mostly we do the remediation through software and also through guided reading, little small group one-on-one. For example those children that I'm telling you have letter recognition difficulties, I've done letter master, have made words for them, that way the child is one on one, Hooked on Phonics, where we have those on tape and I have those children especially during times where they can't grasp what they're doing because they can't read it, I would have them go to those stations for that.

Ms. S: A lot of these kids, for example, are very visual. So I find myself drawing pictures more often or using things like videos um stuff that they could relate to, that they would be able to understand, make the connection that they need. Many of them don't even have the background information or knowledge to understand most of the things I teach them. So I have to scaffold a lot; build background for every single little thing I do. Um, I use a lot of graphic organizers. It helps them organize their thoughts, and then they could use this to write summaries or whatever it is the graphic if organizing, um a lot of manipulatives, especially in math. We use a lot of hands on, it has to be all the time because when they get it with the hands on then they're going to go on and be able to do it in the abstract.

The researcher observed that there were more text-based strategies being utilized which focus mainly on visual learners. The researcher's observation was supported through the following teacher interviews.

> Ms. N: Reading has been our big thing this year. We have them reread a lot. Go back and find your answer in the story. I think that that was our biggest strategy for this year.
>
> Ms. U: I think that we do reciprocal reading, which works well with all of the students. We use many of the CRISS strategies, which works well with all of the students. So, I think that the strategies that we use, you know, work out for all of the students. I think that the only difference, the only difference that I can tell you with ESE kids is that they get a little bit extra from the ESE teacher, you know but she may water it down a little for them, simplify a task for them. Whereas, in my homework the students were required to learn 12 vocabulary words, her students may have seven. So you know she modifies it for them. That would be the only difference.
>
> Ms. G: Yeah, we learned, have you heard of reciprocal teaching? [Yes, yes.] So, a lot of those strategies like rereading, trying to figure out what is the problem that you have. Different things like that . . . We try to ask a lot of higher order questions, and just probing. Whenever they answer, like if there is a certain child that answers wrong, I just keep on with that child.
>
> Ms. D: Actually, when they're reading the question, separate the key words in the question. And then go back. For example if they're having a vocabulary question then there's always something in that sentence that tells you what that word means. Also, that's not enough, you need to read the word before and you need to read the word after, and that will give you the meaning of the word. And look at your choices. There will always be two silly choices and two that are good. They're trying to fool you. Use that word in the place that you put that to see if it made sense with the two sentences you had read with the one before and the one after. That had worked with them a lot in the quiz on vocabulary. Go back and mark your answers where you find the answers mark it, read it, does that make sense. A lot of marking. Actually it's really hard for them and go and underline and highlight. But when they do that that really helps them. It brings it out of the reading.
>
> Ms. E: The school writes a list of strategies we have to use for math. I'm mostly working with math strategies so they're told to check each answer, highlight main vocabulary words, underline, circle, cross out choices so that if you're not confident with an answer, that you thinks' not the right answer, then you cross it out. What other strategies do we do (said in a whisper)? My kids, we do that they have to cover it up and follow it word for word so they don't get lost so they can focus for focus purposes. Uumm, underlining? Looking for key words in the questions, always constantly, look for a word, look for a word in the text, especially when they're visually, just trying to find a word when they might not know what it is. If they can see it in the passage, it can help them figure out an answer.

> Ms. E: Okay if we're reading a passage, then I say circle this word. Let's say the word is decomposing. Okay, the word's in this paragraph, this is the word, let's figure out what this means. We read and underline the definition. So, modeling.
>
> Ms. N: Besides just their goal and their behavior and things like that, well we do a strategy like a reading strategy, or spelling strategy, or something to help them. We don't do it just for the ESE kids. She goes how about my regular kids, they can do that too. I never thought of it. I thought just my ESE kids. Now everybody can do the same thing. If we expect something from one, they all do it. It's not something different. Remember, we have fifth grade expectations for all of them so they need to do what everyone else does.
>
> Ms. L: Reciprocal teaching. I like that method for these students. You have to show them, guide them, model for them what it is you want them, expect for them to do. And that's how we would do it model, model, model, model, they would do it. Model. They would do it. Now it's become a part of them. Now I just say, take out your books, take out your highlighters, we're going to underline all the answers. They go from question to question and they go back to the passage, find the answer, they have to mark it with a number, so they know where they're looking for this information.
>
> Ms. D: We use simplification of text, when we read we chunk things down, we show them not just to read the whole passage, you read one paragraph, and you ask yourself what did I read here, what is the main idea of the paragraph, we do all kinds of vocabulary.

The following interview piece represents teacher-based strategies such as team teaching and modeling.

> Ms. W: We talk a lot, we preach it day in and day out, and we also, I can't say that we really, We model things like on certain levels, what we say to the children is, okay there is a unique situation, we have two teachers, you see that Mrs. D and I are working wonderfully with one another, you know, we work a lot of the Comer into it. We say we collaborate with one another, we're very no fault, we don't blame one another, we try to get along we cooperate and try to get things done and you know, try to see what is the positive outcome out of different situations. So that's how we try you know, we tell them, we show them, we, hopefully by example.

Instructional Materials

Teachers' choices of supplementary materials could also be categorized as addressing some students' learning styles. However, with few exceptions, the researcher found that supplementary materials used by the teachers were geared solely toward visual and auditory learners. Three teachers expressed that supplementary materials for them meant anything that

they could get their hands on. One teacher described what the researcher would label as "found objects" being used for manipulatives in mathematics and scavenged magazines to teach grammatical concepts in language arts as well. The following interview excerpts represent those teachers who expressed using anything they could for supplementary materials.

> Mr. O: We use a lot of math, in the class that we have counters for math we have rainbow lens, even paper clips like this for measuring we use really anything from the classroom as far as um math models and stuff like that to do for math. For reading we use magazines, we pick magazines, and for example, we do our homophones and prefixes and suffixes and they cut our stuff from the magazines and paste it on paper. So we use magazines, papers, we use.
>
> Ms. P: We use whatever we can. For FCAT we have lots of different materials, we bring in the newspaper, articles, *Time for Kids*, whatever we can get our hands on, books, I'm saying aside from what we have in the classroom-- a recipe.

The supplementary materials that teachers reported using were mostly text-based. Teachers gave an account that Florida Comprehensive Assessment Test (FCAT) preparatory books were supplementary texts and that they sometimes used other books as well. These books were High Interest, Low Ability reading books and students' basal readers. Language arts games and videos were also mentioned. The following teachers describe supplementary materials which the researcher classified as being geared mainly toward visual learners.

> Ms. P: Here at the school? There are different types of FCAT books, about three or four of them. Um, manuals with transparencies like as well as in their, like they have a world of language book, which is grammar and stuff like that.
>
> Ms. W: I would say the majority of the day, um, it's sad, but true, in the same token we could, much of the school life is focused on FCAT. So it's all about children focusing on reading, reading, writing, arithmetic, the basics. It's sad but true. We try to make it a little bit more engaging for them, a little more entertaining by bringing in music, visuals, and having them to role play. Or sometimes, even have games, or work on science experiments, things of that nature, but it still goes right back to you know, they have to produce, they have to be able to read and write. [Yes. That is the bottom line.]
>
> Ms. C: I just bought a set called High Interest, Low Reading. I have a math set from Scholastic. I have FCAT books for lower grades; the same thing at a lower level. I have almost everything in here.

> Ms. M: We use different things like we use the versatiles and FROG. These are all reading things. We do vivid verbs, which they love. They act them out and we play memory games with it.
>
> Ms. L: We have different reading comprehension books I have depending on the student levels. We have the Read 180 books in the bags stories that we read. We have silent reading time that we actually share some books we are reading. Or, what was the book that you were reading about. Oh I like one that I was reading. Anybody has a really exciting book that you want to share with us? That's basically it.
>
> Ms. J: If it's grammar related then we have extra materials that come with our grammar books or we may make teacher made. We make a lot of teacher made. We might just put something on the board and just have an activity.
>
> Mr. O: We get, like they have, um, a basal, like the fourth grade. Again, they don't touch on the basal a lot.

Supplementary materials for auditory learners.

Auditory materials reported by teachers included computer programs and music. The researcher observed that three classrooms also had multiple tape recorders for students to use. One of the teachers reported that she had purchased the tape recorders through the inclusion grant money awarded to start up programs in the M-DCPS ($11,000.00 per school) and that she wanted students to be able to record and evaluate their own reading progress. This particular classroom had purchased briefcases full of student supplies such as post-its and highlighters. Due to a lack of classroom space and storage, teachers also purchased cloth slip covers with pockets which fit on the back of students' chairs. Ms. M further describes the supplementary materials found in her unique classroom.

> We ordered tape recorders for the kids so that they could tape record their reading, so that they could listen for fluency and comprehension and we did that. And we tried to make them organized a little better we got the little seat covers for them. We ordered a lot of highlighters, sticky notes for them, things like that.

Evidence of supplementary materials.

However, overall, the researcher did not see evidence of supplementary materials other than the FCAT supplied practice tests, Read-180 books on tapes stored in unopened packages on

one teacher's floor, math manipulatives stored on tables too small to accommodate the kits, unused science equipment, and six to seven computers per classroom. While interviewing a teacher in the media center, the teacher noticed the touch screen that was no longer in her classroom. Ms U describes how she and her students used to use the touch-screen.

> Unfortunately, I don't have a lot of computers. I have a smart board. Now it's in here. That was in my room. [I would] put the Internet on there and the kids [could] go [up] and they [would] get to tap on there, and I [could] teach them to use all sorts of resources. I [could] teach them how to research and look up information so that they [knew] how to tap from all kinds of resources. That works well sometimes with the very low achiever. They're not as good in writing. But they're able to work on the computer, and I'm always looking. I have an Internet guide in my classroom for kids I made with a little binder and whenever I [found] something, [I'd] put it on the board, [and say,] Check this web site out, those of you that have Internet at home. If not, we look at it in the classroom.

Overall, the researcher found regrettable the lack of shelving with which to class book sets and supplies. The following is a passage from the researcher's journal.

> Not anywhere did I witness the enchantment of a school butterfly garden, the release of paper lantern balloons into the air following the completion of a novel unit, students folding a thousand paper cranes, or the thematic curriculum connections espoused in publisher's teaching manuals. Class book sets were often housed in discarded plastic store crates strewn in rows across dusty floors, and science lab equipment, stacked irregularly behind moveable chalkboards, or among that which had been shoved into closet spaces occupied by other forgotten curricula. Learning had become the property of the state, captured within the Xerox copied pages of a teacher-assembled study guide labeled FCAT: Futuristic Comprehension, Appallingly Threatening.

The researcher could not have anticipated the use of FCAT texts with which to deliver core curriculum and children's literature. The following statements made by teachers represent how FCAT texts are used to deliver core curriculum in the state of Florida.

> Mr. O: We don't have much choice in what we do because of course the FCAT and all that stuff, but when it comes to like the library readers, uh, we usually let them chose whatever they want to read. So basically, it's their opinion of what they want to read when we have that free time to do that, accelerated reading, when it comes to group reading and guided reading, we let them chose what we want to read that day.

> Ms. C: Somewhere in the middle of the year she [the principal] changed things and gave us a pamphlet and a booklet and said, work from this, and we all looked at each other and thought, *disaster*. [I like the books that you have; you got to order the separate spelling

and grammar?] Yeah, those are good if you're doing the comprehensive reading plan. I think that the kids get a more rounded education versus the random information that is spewed.

Ms. S: We have a lot of FCAT supplementary material. Obviously, we're fifth grade material FCATed ou, but we use for example those Mascot's, Comprehension Plus, we use Coach Book, we use Blast Off! we use Test Prep, we use Test Ready, Get Set for Reading, that's a lot. We have a lot of resources in this school.

Ms. L: Whenever we finish, let's say for example, we did do a passage, and there was six questions and a short response. After the students finish that, the students usually check their own paper. It really has to be something that I check for a grade, or something very specific, or if they get to check their own work, they get to go back, you know, we do like a review, everyone gets to read out loud, a short or extended response. The other students get to score it, they know how the rubric works. They know it's two points for a short response, four points for an extended response, and they themselves all start asking, how many points do you think that response actually has. Oh it only gets one. They didn't provide all of the information, they only gave half the information. Or that's a three. It had almost everything but it's missing this. Or, oh that one's awesome, or that one's a four. They'll even start going like this, four, four. I've also kind of taught them how to score or how to look for the information to get the maximum number of points.

Ms. W: It's sad but true in the same token we could, much of the school life is focused on FCAT. So it's all about children focusing on reading, reading, writing, arithmetic, the basics. It's sad but true. We try to make it a little bit more engaging for them, a little more entertaining by bringing in music, visuals, and having them to role play. Or sometimes even have games or work on science experiments, things of that nature, but it still goes right back to you know, they have to produce, they have to be able to read and write. [Yes. That is the bottom line.

The researcher was troubled by the overall working conditions in each classroom visited. Even in the school where co-teachers had been involved in the writing of the inclusion grant and the ordering of supplies, the researcher found that this particular team worked in a room no larger than the coatrooms that the researcher remembers from her childhood school experiences. The following is a snapshot of a conversation with yet another teacher at a school other than the one just described, who had her classroom changed one week prior to the researcher's first classroom observation.

Ms. W: Well it's not easy because you know a lot of people tend to have a problem with organizational skills and try to keep clutter to a minimum. And you know, it's not easy because we started off the year in another room. We were in a smaller room and then we

> moved into a bigger room in the midst of a school year. And ever since then it seems like it's been very difficult to get organized, to, everyone keep your stuff, you know, this is your area, try to be well defined and organized and you know, so, it has been a challenge I would say for students and for teachers alike. It's not easy. [No wonder you're laughing.] I'm like, are you kidding me, we still have things in boxes, you know, that we haven't even touched yet that we need to, oh where is this and where is that? [She laughs uncontrollably, again. And I remark. Okay, is that what's happening here.] Exactly, since we moved, I'm telling you.

Academic Focus

The most dominant instructional theme that the researcher observed across co-teaching models was that each inclusive classroom had an academic focus. Yet, the M-DCPS portray inclusive classrooms through their All Schools Newsletter as being primarily child-centered. The following description of a third grade inclusion classroom from a recent (Spring, 2004) newsletter embodies this view.

> When visitors enter our room, they'll be "beary" awe-struck to see how student-friendly it is. You'll notice that there is a bear theme that flows throughout the room. Depending on the time of day, you'll see adorable and humorous students sitting on the futon and rug listening to a read aloud. You'll hear the pounding of little feet and the chatter of conversations as they roam the room or converse with a partner in a cooperative learning activity. . . Every now and then you'll hear the word "Mom," then a chuckle when a student realizes the slip of tongue. . ."

The following third grade classroom observation, taken from the researcher's notes, more closely resembles what the researcher found in four out of eight classrooms across settings: an inviting, highly structured environment with an academic focus represented through content area curriculum.

> Student desks are arranged in three rows which face the front of the room. A teacher's podium is off to one side. There are two teacher's assistants in addition to an ESE teacher. A combination of whole class direct instruction and small group instruction are utilized. Three wooden tables are utilized to regroup students for individualized instruction. Third grade core curriculum is employed with adaptations to instructional delivery within small groups. It is a small, cave-like setting with one rocking chair, four rectangular wooden work tables which surround students' desks and built-in shelving which house teacher's resource books. Peter Max's, *Eighty Nine Liberties* poster is displayed on a front wall to the right of the teacher's desk. There are flowers as well as four, three inch notebooks neatly organized atop the desk. Classroom computers have

> been positioned into a square to create an inviting learning station. The words, *Writing Center* are suspended above. In the back of the room, seat cushions adorn built in shelves beneath the classroom windows. On one side of the room students' pictures of the White House are displayed along side a *Happy Birthday Mr. President* bulletin board. A home-made *We Deliver* mail box is situated near the front door as well as a *No Bullies Allowed* emblem. A series of bottles on a table at the front of the room display water at varying measures. A weekly behavior chart, a reading star chart, and student and teacher rules are also posted in the front of the room. The classroom theme is "peace" which has not only been denoted by the various peace emblems displayed throughout the classroom, but through the visible social studies content.

Similarly, the focus of four teachers' classrooms was chiefly academic with an emphasis on fostering reading skills such as having a dialogue with the text when one reads. This was observed in two third, one fourth, and one fifth grade classroom.

> Ms. L: I question, constant questioning, you know, what is the story about, what's the main idea, give me a fact about the story, tell me three details that you just read about, just questioning them and making them really think. Sometimes they have to write down a question to ask their partner so I let them also question or, they write down questions and they ask questions.

> Ms. M: At the beginning of the year we had this little, like a journal that the kids got a chance to write in, and as they read, we encouraged them to write notes, we encouraged them to write in the margins so they were conscious to think about while they were reading. They were aware of what they were reading. So we really stressed that.

In mathematics, teachers interviewed had emphasized addressing multiple learning styles and process skills. However, the researcher observed only one classroom where mathematics instruction included discussing problems, acting out problems, and finally, linking problems to real-world applications through the use of children's literature. The following represents the instructional dialogue recorded by the researcher during an observation of fifth grade mathematics instruction.

> Instruction begins within one minute of the math lab teacher's arrival. . . . A student reads the first question displayed on the overhead. The math lab teacher asks, "What part of the question do I underline?" Students respond. She underlines that part of the question on the overhead and invites students to, "Come and write what I'm writing," as she draws an imaginary letter in the air in front of her. "Skate around the shape with your fingers," she adds.

Next, flip, slide, and turn are reviewed by having students move their bodies in the direction of the flip, slide, or turn and through making an L with their hands. Synonyms for words such as rotate are also reviewed through kinesthetic movements.

Math teacher: "Rotate clockwise, rotate 180 degrees. How many turns is 180 degrees? What fraction is that? What percent is that? How many degrees do I have to turn to face the clock? Turn 270 degrees counter clockwise."
ESE teacher: "How many turns is that? 90 degrees, 80 degrees, 70 degrees?"

Fifteen minutes later, students take their seats and the math teacher moves back to the overhead where she utilizes graph paper and movable letter shapes. The general education teacher assists with explanations.

Gen Ed Teacher: "Say asymmetrical; without symmetry. One side is different than the other . . ."
Math teacher: "Pencils down; focus on me." [Standing at the overhead she asks,] "How many units will the perimeter of the block be once it is completed?" A child raises his hand and is then asked to walk the perimeter of the classroom.
Math Teacher: "What are you going to do? Walk the distance of the room."
Back at the overhead, she asks: "How many units do we have here. First we complete the shape; that means finish." Okay, you try this one on your own."
With that, the overhead is turned off and the problem is handed out to each student. The four teachers—the math teacher, the general education teacher, the ESE teacher, and the student intern, move about the room assisting individual students as they complete the problem . . .

At the conclusion of a five-minute break, during the last 10 minutes of class, the math teacher brings out a big book from the bottom of her cart entitled *Tiles.*
Math teacher: "Look on the floor, these are tiles. When there are no gaps between the tiles, they tessellate . . . "
All of the shapes in the big book are reviewed.
Math teacher: "Remember my favorite shape?" . . ." "Does tiling occur naturally? If it's balanced, what is it?"
Students in unison: "Symmetrical!"
The math teacher concludes class with her discussion of the big book, and then instructs teachers to "meet me in my room for plans." It is Friday.

Remediation

Teachers reported that when classroom strategies were not effective despite repeated attempts to assist students, students received additional help through before- and after-school tutoring, flexible grouping within the classroom, or a re-teaching concepts and/ or repetition. The co-teachers who had participated in writing an inclusion grant for their classroom reported that, in addition to using the grant money for student supplies, tape recorders, computer programs, and

additional teacher training in reading strategies, they also had used a portion of the grant money to pay for teacher supplements for afterschool tutoring. One of the co-teachers at this school describes the premise of their tutoring program:

> Ms. M: With the grant, we started an after school program, tutoring program. And the deal was we weren't going to teach, they had to come with questions, and I think that made a world of difference. They knew that they didn't have to come. It was something they wanted to do, and I remember that during the lesson, the kids would say, Oh I have a question, I'm coming after school. That really worked out because that was something they had to do on their own. [Were you there after school for them?] We were both there. That made such a world of difference because we told them that we we're not there to teach, it was not a curriculum, if they didn't have a question for us then, we didn't know what we were going to talk about. And they came with their questions. I think that really made a difference. Even though they maybe didn't get it throughout the day in their class, they saved their little question. So that was a nice help, too. [How many days a week was that?] We did that, I think, four days a week. [Oh my gosh, that's a lot of your time.]

Two other schools expressed utilizing tutoring to remediate students as well.

> Ms. D: I have a tutoring section that are actually able to have extra space there to come and finish it there. Not a lot of them take time because they don't want to stay after school.

> Ms. G: They're very aware that we're there before school and they can come in and do their homework if they don't understand it. They're very aware that they could come in after school and do their homework and we'll help them. They're aware of that.

Teachers also described regrouping students within the classroom to provide additional support when classroom strategies were not effective despite repeated attempts to remediate students.

> Ms. W: Well, skill levels, we try to partner children in a group where some kids may not be as strong academically we try to pair them up with students that may be able to help them along. So, they can assist them when they're working with assignments and things. So we try not to put, you know, I'm trying to be very delicate in my words, you don't want to say the low achievers, you know, I want to be careful with my words.

> Ms. M: Sometimes we can pair them up with someone whose not done, which is a great help to us and to them as well. We've done that in the past, we always make sure that they go back and double check and are doing this correctly. We give them the example of creating a recipe and the kids have this choice of creating a little recipe and they worked on it and they did it in class and after they did it they realized it didn't come out quite the way they wanted it. So we always go back to that example. Remember when we created

> that recipe, did it work out the first time? And they all say, no. What did you do? We went back and we fixed it.
>
> Ms. C: I have to go with their base materials and then add on. Like let's say she [taught] estimation yesterday and nobody got it. I have to come in here with my volumes of information and find something that simplifies estimation for the students and then come back again tomorrow and maybe do a little mini lesson first thing to make it clear. Give them their paper and see how they work through it and then they'll give it back to me and I'll go through it and see who needs help, then pull those groups to a table on the side.

The following excerpt provides an example of re-teaching concepts to students who are difficult to remediate.

> Ms. N: We do it next door A LOT. In math, he'll say, I've taught this child the same thing thirty times, she's just not getting it. And I'll say, Okay, keep teaching and I'll take them to the side. YOU NEED SOMEONE TO SAY, and you know you don't have that when you're teaching by yourself, and I think that's the most rewarding thing, the best part.

Follow-up Planning

When asked what teachers were planning on teaching now that FCAT was over, teachers' responses ranged from outrage that I would even *suggest* that they were only teaching FCAT strategies (This particular teacher remarked that if I knew anything about teaching reading, I would *know* that FCAT strategies were good reading), to now that FCAT was over, teachers could "finally teach." Examples of what teachers wanted to teach included: creative writing; doing "more reflection—things the kids are really interested in;" "getting into the basal, we bring in tradebooks, now it's fun;" reading a specific novel; returning to content area curriculum such as studying the Everglades (which is normally taught at the beginning of the fourth grade school year); and finally, being able to teach students how to read through the use of phonics and/ or the regrouping of students across classes according to students' reading levels.

Teachers plan on teaching creative writing.

> Ms. W: The sky's the limit. Now that this FCAT for this year is done, as I said earlier, we want to get more into creative things with the children. The students are doing something called, we've already taught them reflective essay writing, they love, because you give

them topics and they get to write whatever they think, whatever they want, and they get to think about how they feel on a given topic. It starts off, surely everybody knows what chocolate is, and they get to say, Chocolate is blah, blah, blah, whatever, they get to insert whatever they like. In s sense it's like journal writing. It's an outlet for them to be creative. They can say whatever they think or feel.

Ms. M: We were talking about now getting more into the creative writing because we did a lot of writing prior to FCAT. But I want to do more of the creative writing with the kids. You know next year they'll be in fourth grade. That's a very big, so I kind of want to introduce it to them before they get introduced to kind of format writing. I want to maybe teach them the joy of writing. Just kind of introduce them to the fun writing so that once they go into fourth grade, it's not just a chore. Once they get introduced to it, they're probably going to like it. So, I'm looking forward to it.

Mr. O: Reading. We're going to do a little more writing. We're emphasizing a lot more reading strategies. Now, not that I'm going to stop reading, we're going to do reading but we're going to emphasize a lot more writing because in fourth grade they have the Florida Writes. So we're going to focus a lot on the expository, narrative, and letter writing, journal writing. Basically, more writing this time.

Ms. L: I'm going to do much more writing. I'm going to do a lot more writing, and I want them to develop more their creativity as far as putting words down on paper and understanding more structure on the expository essay, the narrative essay, what are the components. I taught that in the beginning, but with the FCAT and stuff, I kind of had to weed that out, and really, really, focus on. So, I'm going to do a lot more writing and more vocabulary, more stories, more fun, more relaxed, you know, let's read for enjoyment, more chapter books, that's what I'm going to suggest to the new guy that's coming in.

Teachers plan on teaching content area curriculum.

Ms. U: Well, the remainder of the year, we're starting a unit on the Everglades and so we'll be teaching, well we started already, habitats and environments of the Everglades. So we're going to get into the animals that live in the everglades and let's see, after that, we're going to go into, back to the history of Florida because we haven't covered the explorers and how Florida came to be.

Ms. H: Multiplication, [she says laughing]. Multiplication is what we're focusing on. And to continue building those [inaudible] because we have children lower than they ought to be.

Teachers plan on teaching non-readers how to read.

Ms. E: We're going to be focusing on more grouping, we're going to group them according to their ability levels we have found in our classroom and focus on building up their reading skills because our theory and philosophy is that if we can build up their reading skills they'll be sharper in any thing subject that they encounter any problem any

real life situation So we're going to focus on in the lower group, unfortunately we're doing phonics. You know, so we're going to focus on reading a lot, more one on one direct instruction a lot in reading group levels. Something we'll do groups and in the lower groups we'll focus on fast forward.

Ms. S: I have a very serious plan. It's called everybody has to read by the end of the year. So what I've done is I've already tested all of them. I know where they are. I'm getting ready, I'm doing phonics surveys to see phonetically where they are at. I already have them in groups. I know what stories we're going to read. They chose them themselves. And what we're going to do is one group is going to be the higher group and maybe involved in other classes where they are higher learning more like TEAM, you know? The teachers in fifth grade we work very well as a team. And I know that they have some that don't read at all either. So I think what we're going to do is kind of a switcheroo for the rest of the year like during reading time and I'm going to get the ones, they don't read. I'm going to have a group that they need to do phonics like t they don't know that it is *ta ta ta.* So we're going to go back. I warned my principal. I told her I understand that we're been preparing for FCAT and that's very important, but now don't come to my class because what you are basically going to be seeing is first grade work. It's sad, but we have to do it. If not, they're going to leave elementary school without any knowledge. At least these kids are at 0.5 months into pre-k. Um, if they could at least get to first grade, second grade level, at least they'd read something because some of them don't read anything.

What teachers wanted people to know about inclusionary classrooms.

Teachers were asked to express their likes, dislikes, and anything else that the researcher did not ask about inclusion. Overwhelmingly, teachers expressed that inclusion works and that it was a great experience. Two teachers caution, however, that the homeroom teacher must like exceptional education students and understand how inclusionary classrooms operate. Four teachers felt that inclusion was not for everyone, including the teachers. Finally, in response to my last question, one teacher whispered, "I'm stressed. It's FCAT time."

Inclusion works.

Ms. M: I think it has worked for even this year where you had kids that started the year, really low and social skills were very limited and yet one child in particular was able to get a 3 on the FCAT and I think that is our little success story. I mean you look back at where he first started, never really participated, never really talked, and he was reading on like a first grade level or beginning of second grade level and to think that he got a level 3 on the FCAT. [Oh, they've already reported students' individual scores to you?] Yes. Yes. And he passed with flying colors. I mean someone who came from second

grade, right into third grade, and did extremely well. I honestly think it's because of these inclusion models. If you had done resource, I don't think he would have done as well.

Ms. H: I think inclusion is good. I've seen one child in my room really blossom in inclusion one of my ESE kids and it just makes you feel so good that my kid jumped really, did really well.

Ms. L: When a student comes and tells you, you know, did you hear me, did you hear me, did you hear how I read? Did you hear how I'm doing? And, Mrs. D. and I, were good, I guess, at that because if we had a student I see I said wow go over and read to her. Go over there! So, they feel good. It's building their self-esteem and just seeing that you've helped them.

Ms. D: Seeing the improvement that the kids make and seeing actually that we do become a whole group. They're not really, Oh she has a favorite. Oh, she has a favorite. They come to both of us, feeling like we're both in control. Because I have situations before when I felt like okay, I'm invading somebody else's space, and that's a very very ugly feeling. [Did you remain with that person the full year?] No, no because when they did full inclusion last year it didn't work. My first experience was wonderful. My second experience was horrible, and my third experience which was my third year, it was wonderful, even though we had a lot of changes with teachers, it was wonderful, very good.

Ms. S: Originally, and I really think that teachers tend not to agree with inclusion, Right off the bat you're thinking that you're probably going to have children that you know are mentally handicapped and you're thinking that's never going to happen in your classroom and nothing's going to work. I was one of those teachers. I truly did not believe in inclusion. I was taught the model and I said yeah yeah yeah sure sure sure. But I didn't believe in it. I come from a school that was pullout the whole time. And I did see the pullout in that school with the teacher that I had. She was very particular. She actually mainstreamed kids. Which doesn't happen a lot. Most of these ESE kids are in ESE pullout for the rest of their life. They don't get mainstreamed. The point of this is really to remediate, help, and assist, but not take over the teaching and so coming from that model and now coming to inclusion class that really really works because I mean for example I have a student that he at bench mark tested below fifth grade level and did not pass it He tested I think from a second to a third grade reader. The bench mark is always on grade level. The bench mark we did for him now is he passed it. So I mean he can read fifth grade text and understand it. So, do I think that this kid reads at a fifth grade level? Probably not. But can he cope with fifth grade text, yes. Before he couldn't. So, I do see it happening before my eyes. Getting better and I mean other teachers see it like the science lab teacher. She says your class is getting there. Slowly but surely. For those kids that don't know their letters, we're going to have to work on them.

Ms. S: Just that it has been a wonderful experience and I was asked when I was asked I didn't know very much about it. It was in one ear and out the other ear. It was mentioned at our faculty meeting and I was running in and out you know and then I was approached by the team. They came to get me and would you consider this change. I was very

comfortable where I was. I said, maybe it's time for a change and I took it and you know it's just extremely rewarding and an incredible experience and I'm glad I took it.

The general education teacher must like ESE students and understand how the model works.

Ms. J: Once you get use to everyone because it's just, it's not easy, for me, it has not been easy. I don't think a lot of, my opinion, number one the people haven't been trained. I think it's wrong. I've tried to bring people in. Now we have a new principal so, things are, he's in the works of getting, what's her name here. [Mrs. So and So.] Yes, Mrs. So and So, yes thank you. You know, the way some of these teachers speak to the students, too. You know, I don't know why you would speak like that to any student much less someone such as this.

Ms. D: When you encounter a colleague and you cannot get that person to work with you and that person is not treating the kids like he or she should. Like I understand our kids are very disruptive in the classroom, I understand it's a lot of work, I understand it's a lot of effort, and it takes almost half of the year to get the discipline down and actually interact on work, as a whole group, but once you get that, it's wonderful.

It's not for everyone, including teachers.

Ms. D: You cannot have every teacher teaching inclusion because it doesn't work. Some people have different personalities. They don't like another person to be in the class. For the kids, the same thing. It doesn't work for every child. Children who are very below grade level, it doesn't work for them. You cannot actually include them.

Ms. C: I really don't like it. *I really don't like it.* This is why I don't like it. I am more of a hands-on teacher, and more people are a lecture-based teacher. [She points to each adjoining classroom door and remarks,] She's very lecture based, and she's very lecture based. I'm not lecture-based. So, everything for me has to be hands-on. I teach better through hands-on. It's more fun for me. So, that is why I don't like it. And, for us this year, she's also the math facilitator this year. So, she's never in the room, so whatever lesson was planned, designated, there's no clear sequence what's going to happen. There's no clear definition what's going to happen today.

Ms. U: No—I can tell you that when I first starting working in inclusion, I wasn't happy with it. Only because I think it was the year when I had students that had a lot of problems that year, and I thought that having the ESE inclusion students in my classroom was creating more of a difficult time for the rest of the students. I felt that that year that their ESE needs were not being met. It wasn't with Ms. J. I had another teacher working with me and I felt that their needs were not really being met. Some of those children didn't belong in inclusion. Those were children that needed to be pulled out.

Ms. W: That's a loaded question. Inclusion is not for everyone. You have to, and I kid you not, between our students that are coming from ESE and are being mainstreamed into the quote unquote general ed classroom, and the ESOL students, and the students who are

> frustrated because they are repeating the grade level, which is a unique situation for us because we have three and four different things going on here, and then you have children that are emotionally um um disturbed and so I kid you not practically on a daily basis, I don't think that there's even one day that we can get by without having some situation involving a student from student to student, a student in this class or a student in another class or it's just that they have a lot of social problems that I notice. I guess it's because they have issues that are going on at home, they're coming from abusive situations, they're coming from broken home situations, and things of that nature, and their only outlet is to be who they are. They can only demonstrate what they have seen and what they learned from their home environment. It's sad but it's true. So, um, everyday, G and I joke that everyday we're like investigators. Everyday were recording down something, writing reports all the time. We're writing accident reports and we're writing referrals and we're calling parents constantly, and we're working on anecdotals for some children that we believe should be a part of ESE now. [You still have a pull-out program, now] Actually, what it is is that they're trying to do away with ESE on the whole. We're looking at in the near future, it may be sooner than we think, even the ones that you know, profoundly.
>
> Ms. G: I don't know. This program is just challenging here, and it's just drained all of my energy, and I love the children with all my heart, but when it comes to the other things, like our room is grand central station and people come in and out of our room every day, all the time, interrupting us, and it's really frustrating, and we haven't had a lot of administrative support. So, kids aren't getting a lot of consequences. We're writing reports, we're calling parents, we're doing everything we have to do, and nothing gets done.

Quantitative Analyses

Repeated-measures analyses of variance (*ANOVA*) were used to separately compare the groups' achievement in reading and mathematics. The repeated-measures *ANOVA* used a 2 x 2 factorial design. The first factor represented the two levels of the experimental treatment model (inclusion versus non-inclusion). The second factor represented time (i.e. the pretest and posttest measurements administered in 2002 - 2003 and 2003 - 2004 school years, respectively). The Stanford Achievement Test, 9th Edition was used as a pretest for students in grade 3, and the FCAT-NRT was used as a pretest for students in grades 4 and 5. The FCAT-NRT was used as the posttest for students in grades 3 through 5. This analysis provided an examination of the main and interactive effects of the two independent variables (model and time) on the dependent

variables (i.e. Reading Comprehension and Mathematics Applications scores). Separate analyses of the students' Reading Comprehension and Mathematics Applications scores were conducted.

Repeated Measures ANOVA

The repeated measures *ANOVA* procedure requires the data to meet three assumptions. The first assumption pertains to the independence of the observations. Independence is the most important assumption; even small violations affect the validity of the results (Stevens, 2002). As the subjects are individual students (Becker, 1999), the assessments were conducted under secure conditions (Office of Assessment and Data Analysis, 2003), and randomization was used in the construction of the control group; the observations may be considered to be independent.

The second assumption is that the dependent variables are normally distributed. To test this assumption, the distributions of pretest and posttest scores in Reading Comprehension and Mathematics Applications at grades 3, 4, and 5 were examined separately. Of the twelve sets of scores analyzed, only seven adhered to a normal distribution. These seven were the Reading Comprehension posttest and Mathematics Applications pretest at grade 3; the Reading Comprehension pretest and posttest, and the Mathematics Applications pretest at grade 4; and the Mathematics Applications pretest at grade 5. As repeated measures *ANOVA* is 'robust' to violations of this assumption (Stevens, 2002), these violations do not threaten the validity of the findings. The third condition applies to the sphericity of the data: the variance of differences between all possible pairs of the dependent variables (repeated measures) must be equal (Stevens, 2002). As there was only one pair of repeated measures, the sphericity assumption does not apply.

Reading Comprehension.

Table 2 shows the distribution of pretest and posttest scores for each model. As Table 2 shows, the scores increased from pretest to posttest at each grade level. As the scale of norm-

referenced tests increases across levels to reflect the predicted growth at each percentile rank (Anastasi, 1976), the observed increase is not unexpected.

Table 2

Comparison of the groups' pretest and posttest Reading Comprehension scaled scores

	Mean		Standard Deviation		Sample Size	
Source	Pretest	Posttest	Pretest	Posttest	Pretest	Posttest
Grade 3						
Inclusion	584.88	619.88	30.55	30.57	51	51
Control	577.85	614.29	40.27	37.47	48	48
Grade 4						
Inclusion	608.27	628.53	32.52	32.78	62	62
Control	606.06	631.77	43.38	36.97	53	53
Grade 5						
Inclusion	613.05	627.56	40.04	36.57	73	73
Control	613.99	624.96	33.46	32.03	69	69

Note. Pretest and posttest score are paired.

The results of an analysis of variance of the groups' Reading Comprehension scaled scores are presented in Table 3. The table lists the possible sources of differences. Included are the two main effects (model and time). The main effect of model describes the average effect of group membership, while the main effect of time describes overall changes in the scores from pretest to posttest. An additional source of variation, which represents systematic differences between the groups in the rate of growth experienced from pretest to posttest, is also shown. This

source is listed on the table as Time x Model.

Table 3

Analysis of variance of the groups' Reading Comprehension scaled scores

Source	*df*	*F*	*η*	*P*
	Grade 3			
Between subjects				
Model	1	0.93	.10	.34
S within-group error	97	(2119.04)		
Within subjects				
Time	1	203.83**	.82	.00
Time x Model	1	0.08	.02	.78
Time x *S* within-group error	97	(309.55)		
	Grade 4			
Between subjects				
Model	1	.01	.01	.94
S within-group error	113	(2338.86)		
Within subjects				
Time	1	98.36**	.68	.00
Time x Model	1	1.39	.08	.24
Time x *S* within-group error	113	(307.01)		
	Grade 5			
Between subjects				
Model	1	0.02	.01	.88
S within-group error	140	(2289.07)		
Within subjects				
Time	1	43.43**	.49	.00
Time x Model	1	0.84	.07	.36
Time x *S* within-group error	140	(265.09)		

Note. Parenthetical values represent mean square errors; *S* = subjects.

**$p < .01$.

The second and third columns of the table list, respectively, the degrees of freedom, and the results of statistical significance tests conducted on each effect. The fourth column gives the effect-size, an indication of the strength/ practical significance, for each source of variation. The last column in the table indicates the level of statistical significance of each effect.

Table 3 shows that the main effect of time was statistically significant at grade 3, F (1, 97) = 203.83, $p < .01$; grade 4, F (1, 113) = 93.83, $p < .01$, and grade 5, F (1, 140) = 43.43, $p < .01$. This shows that the students' scaled scores changed significantly from pretest to posttest. The direction of these differences can be found by inspecting the scores.

Figures 2, 3, and 4, picture these results for grades 3, 4, and 5, respectively. The figures show the pretest mean (X marker) and posttest mean (square marker), for each inclusionary model bracketed by error bars. Errors bars are confidence intervals that depict the precision of measurements. These bars extend for 1.96 standard errors about each mean value. The standard errors seen in these figures are depicted as attenuated to account for correlations between the pretest and posttest scores. Error bars that overlap depict group-mean scores that are comparable in magnitude.

A statistical comparison of the groups' performance can be gleaned through visual examination of the pretest and posttest error bars. The differences between the pretest and posttest means scores represent growth. For example, if the value of the square marker is greater than the value of the X marker, there is growth from pretest to posttest. The relative positions of the pretest and posttest error bars give the statistical significance of that growth. If the error bars that surround the pretest and posttest means appear to be separated, the difference between the pretest and posttest means is statistically significant.

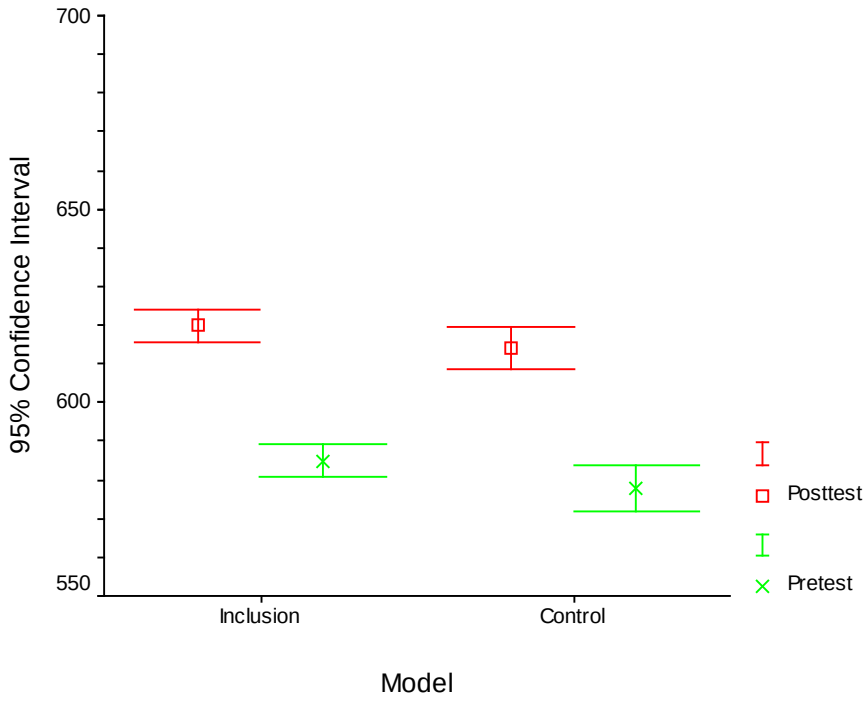

Figure 2

Error bars of the groups' mean Reading Comprehension scaled scores at grade 3

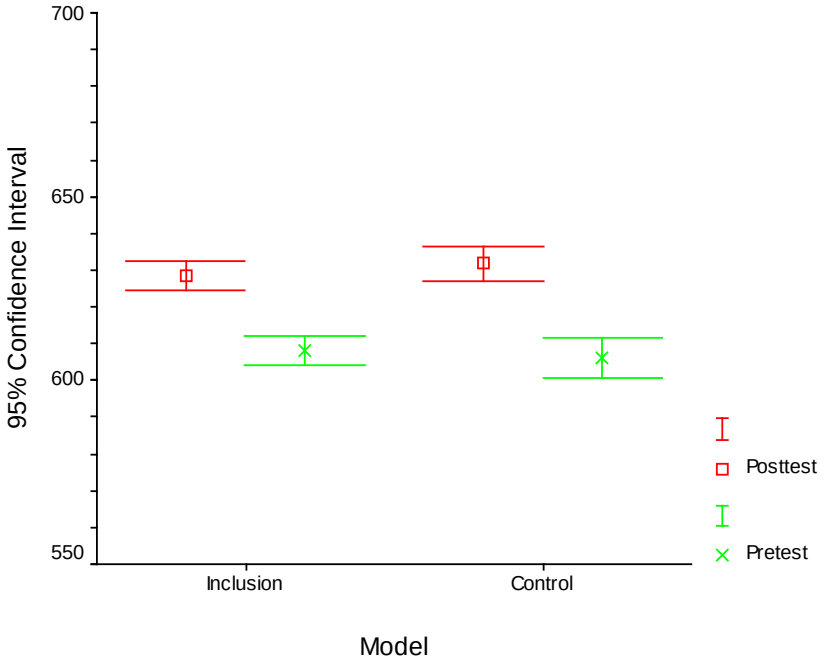

Figure 3

Error bars of the groups' mean Reading Comprehension scaled at grade 4

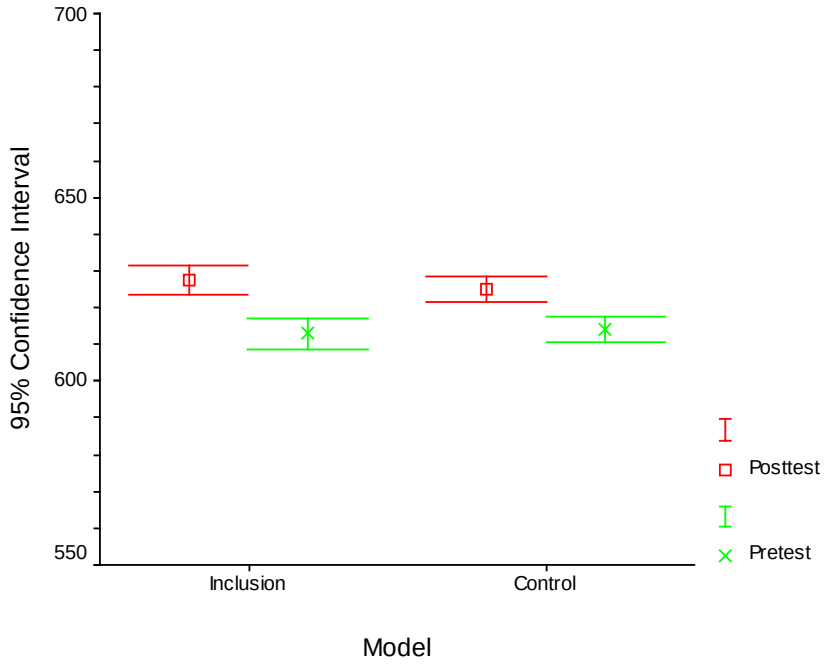

Figure 4

Error bars of the groups' mean Reading Comprehension scaled scores at grade 5

In contrast, if the error bars that surround the pretest and posttest means appear to overlap, the difference between the pretest and posttest means is not statistically significant. In other words, error bars that appear to be separated show significant growth (loss) while error bars appear to overlap show insignificant growth (loss).

The figures show that, for each group, the posttest mean exceeded the pretest mean as shown by the relative position of the markers. Thus, at each grade level, growth from pretest to posttest was experienced for each group. At each grade level, the error bars that surround the pretest and posttest means of each group appear as separated. Therefore, at each grade-level significant growth was seen from pretest to posttest for each group. In each case, since significant growth is seen for *both* groups, growth for the *combined* group was also significant. As such, the significant main effect of time seen at each grade-level shows growth in the students' scaled scores from pretest to posttest.

Returning to Table 3, one sees, that the Time x Model effect was not statistically significant ($p < .05$), at any grade level. Thus, the rates of growth from pretest to posttest did not vary significantly between the treatment and control groups. In other words, no significant programmatic effects were evident. In sum, statistically significant main effects of time were seen at each grade level. Such increases are not unexpected in norm-referenced tests. As the Time x Model effect was not statistically significant at any grade level, no systematic differences between the groups, in the rate of growth from pretest to posttest, were observed. As such, statistically significant programmatic effects were not evident. No other statistically significant effects were found.

Mathematics Applications.

Table 4 depicts the distribution of pretest and posttest scores for each model. As the table shows, the scores increased from pretest to posttest at each grade level. As the scale of norm-referenced tests increases across levels to reflect the predicted growth at each percentile rank (Anastasi, 1976), the observed increase is not unexpected. The results of an analysis of variance of the groups' Mathematics Applications scaled scores are presented in Table 5. As seen with Reading Comprehension, the time main effect was statistically significant at grade 3, F (1, 97) = 179.17, $p < .01$; grade 4, F (1, 113) = 34.75, $p < .01$, and grade 5, F (1, 137) = 107.49, $p < .01$. This finding indicates that the students' scaled scores changed significantly from pretest to posttest. The direction of these differences can be found by inspecting the scores. Figures 5, 6, and 7, depict the pretest and posttest means and standard errors for grades 3, 4, and 5, respectively. The figures show that, at each grade level, the posttest means exceeded the pretest means for each group. Thus, at each grade level, growth was seen from pretest to posttest for each group. Figures 5 and 7 illustrate that in grades 3 and 5 the error bars that surround the

pretest and posttest means of each group are separated. Thus, at grades 3 and 5, the pretest to posttest growth, experienced by each group, is statistically significant

Table 4

Comparison of the groups' pretest and posttest Mathematics Applications scaled scores

	Mean		Standard Deviation		Sample Size	
Source	Pretest	Posttest	Pretest	Posttest	Pretest	Posttest
Grade 3						
Inclusion	582.33	619.84	29.22	29.20	51	51
Control	586.48	620.42	33.74	35.60	48	48
Grade 4[a]						
Inclusion	614.03	623.90	37.13	31.79	62	62
Control	605.91	628.25	42.61	34.69	53	53
Grade 5						
Inclusion	610.01	631.23	36.62	31.66	71	71
Control	610.12	632.09	36.72	33.70	68	68

Note. Pretest and posttest scores are paired.

[a] Differences in the groups' pretest to posttest growth profiles are statistically significant ($p < .05$).

Since a significant difference is seen for *both* groups, the difference for the *combined* group is also significant. Figure 6, however, shows that the error bars that surround the pretest and posttest means in grade 4 are separate in the control group, but overlap for the inclusion group. Although, significant growth is seen for one group, but not another, the significant main effect of time indicates that growth for the *combined* group is statistically significant. More importantly, however, is that the difference in the growth experienced by the groups, at grade 4,

indicates the presence of a significant Time x Model interaction effect at that grade.

Table 5

Analysis of variance of the groups' Mathematics Applications scaled scores

Source	*df*	*F*	*η*	*P*
	Grade 3			
Between subjects				
Model	1	0.16	.04	0.69
S within-group error	97	(1693.34)		
Within subjects				
Time	1	179.17**	.80	0.00
Time x Model	1	0.45	.04	0.50
Time x *S* within-group error	97	(352.25)		
	Grade 4			
Between subjects				
Model	1	0.09	.03	0.76
S within-group error	113	(2252.49)		
Within subjects				
Time	1	34.75**	.48	0.00
Time x Model	1	5.21*	.18	0.02
Time x *S* within-group error	113	(426.55)		
	Grade 5			
Between subjects				
Model	1	0.01	.01	0.93
S within-group error	137	(2110.97)		
Within subjects				
Time	1	107.49**	.66	0.00
Time x Model	1	0.03	.01	0.86
Time x *S* within-group error	137	(301.28)		

Note. Parenthetical values represent mean square errors; *S* = subjects.

* $p < .05$. ** $p < .01$.

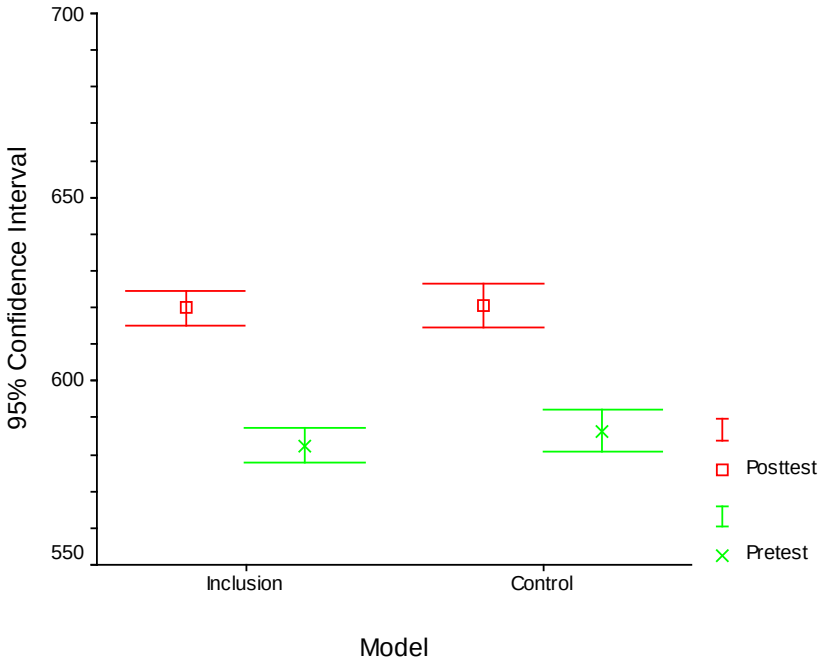

Figure 5

Error bars of the groups' mean Mathematics Applications scaled scores at grade 3

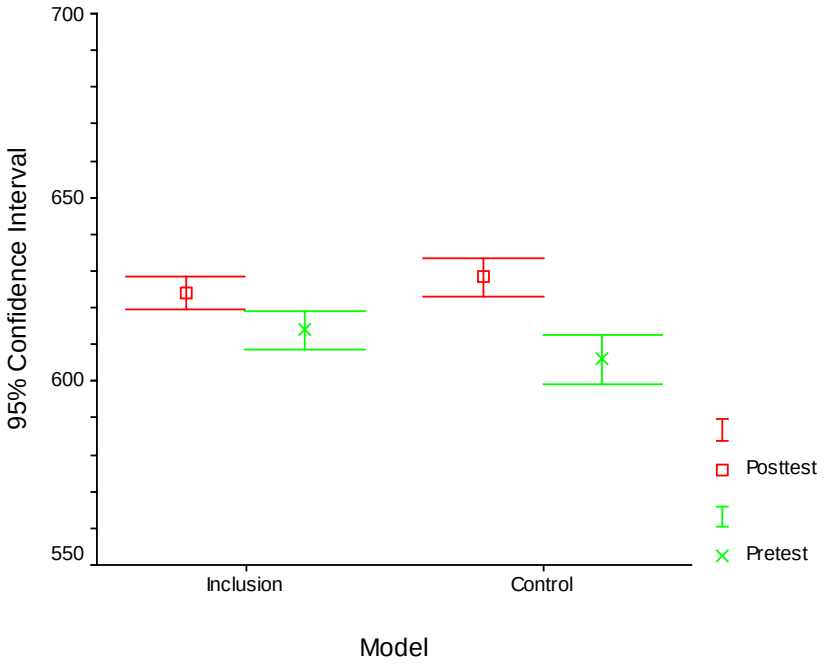

Figure 6

Error bars of the groups' mean Mathematics Applications scaled scores at grade 4

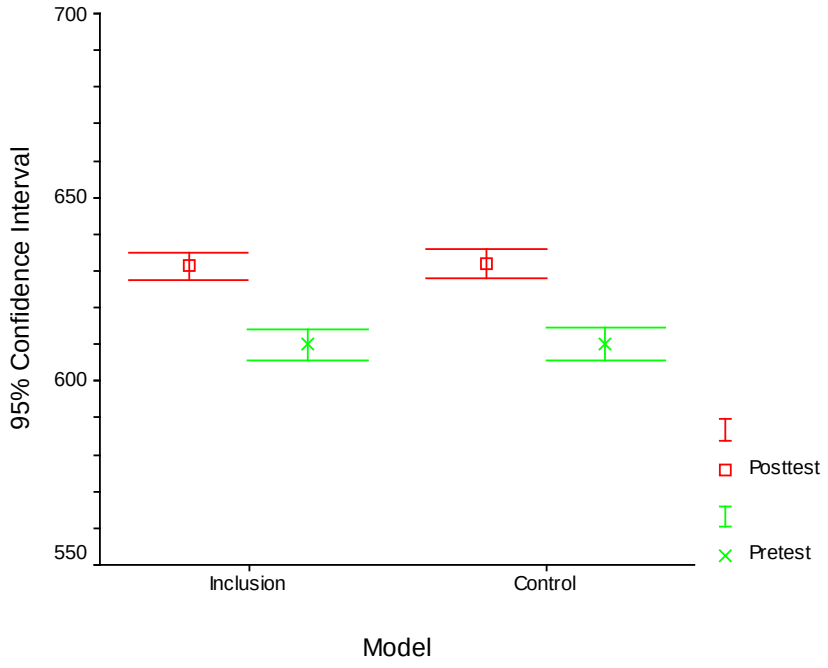

Figure 7

Error bars of the groups' mean Mathematics Applications scaled scores at grade 5

Returning to Table 5, one sees that, in fact, a statistically significant Time x Model effect was found at grade 4, F (1, 113), p = .02, η = .18, and not at the other grades. Thus, at grade 4 the growth experienced from pretest to posttest was systematically *less* in the inclusion group than in the control group. Therefore, a programmatic effect was found, although in the opposite direction than the expected one.The practical significance of this finding can be found by situating the effect among those hypothesized for inclusion, based on Lipsey and Wilson (1993). The effect-size observed for fourth grade Mathematics Applications, in this study, would roughly equate to the 35th percentile of effects hypothesized. At such, it would be classified as a moderate effect. The classifications found in Lipsey (1990) support that determination. The statistical power of this finding, at a measured pretest posttest correlation, r = .68, is .93. As such, it is highly likely that this result is correct.

In sum, in grade 4, a statistically significant, moderate Time x Model effect was observed. Students in the inclusion group at grade 4 experienced less growth in mathematics from pretest to posttest than their counterparts in the control group. No other statistically significant programmatic effects were observed. Time effects, which are not unexpected in norm-referenced tests, were also seen at each grade-level. No other statistically significant sources of variation were encountered.

Summary

Interviews and observations revealed that all co-teachers delivered instruction throughout the day and that teachers' beliefs about co-teaching, teaching roles, methodology, and strategies utilized were consistent with their belief systems and represented their philosophical points of view. Findings not anticipated were that an emphasis was placed solely on reading comprehension strategies delivered through FCAT practice materials. Repeated-measures analyses of variance (*ANOVA*) were used to separately compare the groups' achievement in reading and mathematics. The Stanford Achievement Test, 9th Edition was used as a pretest for students in grade 3, and the FCAT-NRT was used as a pretest for students in grades 4 and 5. The FCAT-NRT was used as the posttest for students in grades 3 through 5. In both Reading Comprehension and Mathematics Applications, the growth from pretest to posttest experienced by students in the inclusion group was generally comparable to that of demographically similar controls. In one instance, however, (Mathematics Applications at grade 4), a significant moderate Time x Model effect was found: Students in the inclusion group at grade 4 experienced less growth from pretest to posttest than their counterparts in the control group. Statistically significant time effects were also found at each subtest and grade. Time effects demonstrate changes in the scores from pretest to posttest and are not unexpected in norm-referenced

instruments as they are aligned according to a continuous scale that increases from grade to grade.

CHAPTER V: SUMMARY AND DISCUSSION

The final chapter of this dissertation revisits the research problem and reviews the major methods used in this study. The major sections of this chapter summarize the results, discuss the limitations, implications, and recommendations for future research.

Statement of the Problem

Due to the recent Regular Education Initiative (REI), the reauthorization of the Individuals with Disabilities Act of 1990 (IDEA) which mandated that all students with disabilities were to participate in statewide assessments, and accountability for all student groups commanded through the No Child Left Behind Act (2002), the inclusion service delivery model has been viewed as a viable option for students with disabilities. It is also an answer to the recent call for school reform and exposure of students with disabilities to regular education curriculum. Prior studies have indicated that special education students in pullout programs have had poor academic achievement. Rea, McLaughlin, and Walther-Thomas (2002) concur that, restricted experiences outside of general education have led to poor social and academic outcomes for students with disabilities. Similarly, proponents (e.g., Imants, 2002) suggest that, once included in classrooms with higher expectations, appropriate role models, and true opportunities for generalization of skills, students with disabilities will experience improved outcomes.

Much attention and energy remain focused on the justification for inclusion, the process itself, and/ or the affective responses of participants. Rea et al. (2002) offer that an evaluation of special services in the eighties was initially prompted by (1) unsatisfactory academic performance by students with disabilities, (2) demands for social equity, (3) an increase in the number of students identified as having a learning disability, and (4) increasing costs of special education services. In a broadened scope of events, Pisapia (n.p.) adds that the national policy of the eighties was focused on efficacy of product, social and welfare concerns, enforcement of

regulations, and federal interventions, and that presently, this focus has shifted to a concentration on excellence through standards of performance, economic productivity, parental choice, state and local initiatives, and the sharing of information. Today, there is a tension between process and outcomes. Whom do we measure? Do we examine the teachers, the students, the Local Education Agencies? Or, do we look toward the politicians and special interest groups who have manipulated the entire landscape of education?

Review of the Methodology

The two primary questions that this study attempted to answer were: To what extent, if any, do inclusionary practices impact the learning environment of students in high-poverty elementary schools? And, to what extent, if any, do inclusionary practices impact the academic achievement of inclusionary students in high-poverty elementary schools? In the qualitative portion of the study, the first question subsumed several related questions, which evolved during the teacher interviews:

1. What is the philosophy of co-teachers working in inclusionary classrooms?

2. What is the level of collaboration of inclusionary classrooms?

3. Which methods of instructional delivery are the most prominent in inclusionary classrooms?

The quantitative portion of the study attempted to answer the second primary question:

4. How do the norm-referenced reading and mathematics scores of students in inclusionary settings compare with their counterparts in a non-inclusive setting?

A concurrent mixed-model design in which qualitative and quantitative techniques address different aspects of the study was utilized. Each section had its own data analysis and collection procedures (Tashekkori & Teddlie, 2003).

The qualitative portion of this study utilized a collective case study design (Stake, 1995) to facilitate cross-site analysis. An adapted version of the topical outline embedded within the FAAB, *Extended Teacher Interview and Observation Record* served to predefine and organize primary and secondary constructs under study. As per Ysseldyke and Christenson's specifications, additions and revisions were made by the researcher to the original *Extended Teacher Interview*. The primary focus of the *Extended Teacher Interview* included teachers' expectations, instructional diagnosis, planning, strategies, adaptive instruction, cognitive emphasis, materials, practice, and productive use of time; while the focus of the Observation Record in this study was instructional planning, management, delivery, monitoring, and evaluation. Documents available through the district's web site and schools' web sites were used to illustrate and/ or document school structures and supports. Through the presentation of both coded data and direct interpretation, common collaborative and instructional practices were identified across cases.

In the quantitative portion of the study, the academic achievement of the students observed in inclusionary settings was assessed. To do so, the sample of students was compared to a virtual control group of students drawn from non-inclusionary classrooms in high-poverty elementary school classrooms within the M-DCPS. The students who attended those classrooms were matched to the treatment group by grade level, ethnicity, gender, limited English proficiency status, free and reduced lunch eligibility status, and primary exceptionality. For each treatment subject, a single matched control was drawn at random from among the multiple exact matches that resulted. As an exact match was not available for each member of the treatment group, chi-square analyses were conducted to assess the group's equivalence on each of the demographic variables pertinent to the matching process. The results of the chi-square analysis conducted were not significant ($p < .05$), so the groups were considered comparable in terms of

the demographic variables that comprised the matching procedure. A repeated-measures analysis of variance (*ANOVA*) was used to separately compare the groups' achievement in reading and mathematics. The repeated-measures *ANOVA* used a 2 x 2 factorial design. The first factor represented the two levels of the experimental treatment model (inclusion versus control). The second factor represented time (i.e. the pretest and posttest measurements administered in 2002 - 2003 and 2003 - 2004, respectively). The Stanford Achievement Test, 9th Edition was used as a pretest for students in grade 3, and the FCAT-NRT was used as a pretest for students in grades 4 and 5. The FCAT-NRT was used as the posttest for students in grades 3 through 5. This analysis provided an examination of the main and interactive effects of the two independent variables (model and time) on the dependent variables (i.e. Reading Comprehension and Mathematics Applications scores).

Summary of the Results

The researcher found that within the predominant co-teaching structures observed, one teach-one-assist and alternative teaching, that a reciprocal team teaching format was utilized in guiding, delivering, and planning instruction across settings. All classrooms observed had two co-teachers in addition to part-time teaching assistants, interns, and/ or additional resource teachers. Teacher's basic beliefs about co-teaching were that they could learn from one another, and in order for the model to work, that teachers had to get along with each other both inside and outside of the classroom. Teachers' beliefs about children were that all children could learn, all one needed to do was to encourage individual differences and prepare students for the real world. Co-teachers' beliefs about students in inclusionary classrooms were that they needed to have a pre-requisite of social skills, to be responsible for their own actions, and that they needed to be academically prepared, or close to grade level, in order to succeed in an inclusionary classroom. Three teachers' descriptions of instructional practices utilized in their classrooms revealed that

they had incorporated the philosophical underpinnings of schoolwide models such as the Comer philosophy into their teaching practices. Overall, teachers reported that teaching in inclusionary classrooms required utilizing different strategies, slowing down the pace of instruction, and learning how to work with ones' partner. Expectations for student performance were similar among ESE and regular education teachers. Both ESE teachers and general education teachers felt that expectations for all students should be the same. Two ESE teachers mentioned that they individualized instruction according to IEP goals. When planning instruction for students with specific learning disabilities or emotional handicaps, teachers reported that they had to modify curriculum, arrange the furniture in the classroom to accommodate individual students, and to group students according to academic needs. High functioning students were always paired with low functioning students. All ESE students were dispersed throughout the classroom as well. The most effective teaching methods reported by teachers were the utilization of specific student-based strategies, instructional groups, and the organization of teachers. The researcher found that instructional strategies were either hands-on or text-based, and supplementary materials were predominately geared toward visual and auditory learners with few exceptions. Supplementary materials were primarily text-based with an emphasis on Florida Comprehension Assessment Test (FCAT) preparatory materials. This was an unanticipated finding. Similarly, the researcher observed across co-teaching models that each inclusionary classroom had an academic theme, but that there was a heavy emphasis on reading comprehension strategies delivered through FCAT preparatory materials. In mathematics, only one classroom observed by the researcher included discussion, the use of technology and manipulatives, a focus on process skills, a reinforcement of mathematical vocabulary through kinesthetic movement, and linking concepts to real world applications.

In measuring the effect of inclusionary practices on academic attainment, a repeated-measures analysis of variance (*ANOVA*) was used to separately compare the groups' achievement in reading and mathematics. The Stanford Achievement Test, 9th Edition was used as a pretest for students in grade 3, and the FCAT-NRT was used as a pretest for students in grades 4 and 5. The FCAT-NRT was used as the posttest for students in grades 3 through 5. In both Reading Comprehension and Mathematics Applications, the growth from pretest to posttest experienced by students in the inclusion group was comparable to that of demographically similar controls. In only one instance (Mathematics Applications at grade 4) was a significant Time x Model effect found, and that effect was in the moderate range. Statistically significant time effects were found at each subtest and grade. Time effects demonstrate changes in the scores from pretest to posttest and are not unexpected in norm-referenced instruments.

Discussion

A large number of studies that have focused on inclusionary practices in the classroom have been conducted in elementary settings. These studies have focused mainly on the attitudes of teachers toward co-teachers, stages of collaboration, attitudes of teachers toward students with disabilities, teacher training, identifying exemplary co-teaching practices, and factors associated with successful program implementation. Prior concerns regarding inclusion have ranged from a concern that students with disabilities might have a negative effect on general education students to a concern that special education might lose what's "special" about special education: individualizing education. In this study, the researcher found that what made classrooms unique was the overall dedication of the co-teachers, their belief that all children could learn-- all one had to do was encourage and foster individual differences, and the fact that co-teachers shared equally in the teaching process. In prior research in the area of work roles that special and general education co-teachers share in inclusionary classrooms, general education co-teachers

expressed that they felt that general education co-teachers did more than their special education partners in the inclusionary classroom. In this study co-teachers described their roles as shared. Exceptional education teachers wrote lesson plans, assisted general education teachers with general education students' progress plans, and in many cases, were observed presenting initial instruction. Regular education teachers often described their co-partners as a being more creative and as knowing how to handle unique behavioral interventions. Both co-teachers referred to their partnership as a marriage and identified that the most important thing about inclusion is that you must be paired with someone that you can get along with both inside and outside of the classroom. Noteworthy practices identified by the researcher were the appropriate pacing of regular education curriculum, planning with the grade-level team, the use of expert lab teachers to deliver additional instruction in science and mathematics, the use of flexible instructional groups within the classroom during the later half of instruction, and consistency of instructional practices districtwide. Districtwide, the researcher observed reciprocal reading techniques and cooperative learning. Finally, similar to the findings of Austin (2001), co-teachers believed that inclusion had contributed positively to the academic development of their students. Equally important was that teachers felt that they had learned from their co-teaching partner.

Unanticipated findings were that over half of the teachers observed had not been given adequate planning time. With the exception of two teachers in this study, teachers could not tell or show the researcher how district-awarded inclusion money had been spent. Similarly, with the exception of two teachers, teachers had been assigned to their present positions. Across grade levels teachers were observed teaching reading primarily through FCAT practice materials. Teachers mentioned that basals and novels had been postponed to later in the year. The researcher did not anticipate finding large numbers of students who could not read. The researcher found that large numbers of students across grade levels had been retained and in one

instance, an entire third grade class had been retained and the researcher had to draw from another inclusionary third grade classroom for the study.

Few studies have compared the achievement of exceptional students to general education students or compared the performance of students with learning disabilities in inclusionary classrooms to similar students in pull-out education programs. Prior studies have been criticized for lacking true randomization of subjects, missing descriptions of treatment and control groups, drawing interpretations from insignificant statistical findings, difficulty in identifying treatment variables, replicability, failure to use control groups, and drawing inferences based on inconclusive differences between pull-out and inclusion programs.

In the quantitative phase of this study, the results of five of six analyses of variance failed to show a significant effect for inclusion in either reading or mathematics. The effect sizes associated with these findings would be classified as weak (Cohen, 1988; Lipsey, 1990). Over 90 percent of effects simulated from the findings of Lipsey and Wilson (1993) exceeded this value. In grade four mathematics, however, a significant moderate negative effect for inclusion was found. Given the overwhelming number of positive findings in studies comparing educational interventions to controls (Lipsey & Wilson, 1993), this finding would ordinarily bear further scrutiny. Yet, in this study, this discrepancy may be attributed to several factors. The researcher was only able to observe two out of three fourth grade classrooms that operated inclusion programs during the 2004 school year. One fourth grade teacher reported postponing math and social studies curriculum to the latter part of the year. Interns were also observed teaching mathematics. When these implementation issues are factored in and fourth grade math results are placed in the context of other grades, it does not appear that inclusion had an effect on student achievement. Other research does support this conclusion (Dyson & Polat, 2004; Florian & Rouse, 2004; Rea, McLaughlin, & Walther-Thomas, 2002).

Limitations

Due to logistical constraints and the small number of exceptional education students across inclusionary classrooms, the performance of ESE students and mainstream students was not analyzed separately. Due to ethical and practical considerations, students were not randomly assigned to control and treatment groups. This study was conducted on intact groups of students. A quasi-experiment was used in lieu of a true experimental design. As this is considered to be an acceptable way to control threats to internal validity when true experiments are not practical (Campbell & Stanley, 1963), causality cannot be implied by the results. Other limitations were that multiple observations of inclusionary classrooms throughout the school year may have been necessary to further document instruction, provide a broader picture of curriculum, and verify or refute administrative support. Additionally, one school in the fourth grade sample declined an observation despite repeated faxes and visits with the school site administrator. A replacement school was not drawn, as during the 2003-04 school year only three high-poverty elementary schools in the Miami-Dade County Public Schools were identified as having operated inclusionary programs at the fourth grade. The state has a policy to retain all third grade students who score proficiency level 1 on the FCAT reading subtest (Florida Department of Education, 2004). The low number of classrooms in the fourth grade level was due, in part, to this policy. The effect-sizes observed in the analysis of student achievement were, for the most part, small. The power of the effects at the sample size and significance levels used was, therefore, insufficient, in most cases, to establish the results as correct with an acceptable level of certainty. Reduced sample size due to mortality of the sample resulting from retentions and other unanticipated factors contributed to the low power of the results. Future studies should be designed to detect smaller effect sizes in an effort to better glean the impact of inclusionary practices. Given the small effect sizes encountered, it is likely that large increases in sample sizes

will be necessary to produce the desired sensitivity levels.

Implications

Systems are being pressured to develop more inclusionary practices for students with special needs. What are some of the consequences of implementing inclusion only programs throughout the schools? What are the consequences of viewing inclusion as a strategy for exceptional students? How do we determine which programs are more effective than others? How can the instructional needs of low SES students and students with specific learning disabilities be combined? The results of this study failed to show the impact of inclusionary practices on student achievement. It does, however, provide insight into the successful relationships of reciprocal co-teachers evidenced through the stories that each teacher had to tell.

Recommendations for Practice

Presently, the qualifying guidelines for exceptional students, and the presentation of such guidelines, are driven by federal laws and state funding structures. Funding structures which were once weighted according to the number of hours of specialized instruction required for educating an exceptional student no longer exist. Moreover, state to state and county to county, the implementation of exceptional student education programs is largely decided upon by the Local Education Agency. Hence, this study reinforces the need for a uniform set of practices, the additional training of teachers, consultation between universities and the schools, university intervention in state policies and practices, a revision of state achievement tests, the need to develop instruments which measure adaptive instruction, a monitoring of inclusion funding at the individual school level, and a more equable distribution of funding for all students in high-poverty schools. Further, the interview data from this study can be utilized for training purposes at the Local Education Agency level and within schools implementing start-up inclusionary programs.

Recommendations for Future Research

The results from this study have attempted to assess the benefits of inclusionary practices and the role of collaborative instructional arrangements in reaping those benefits. The findings, though compelling, contain ambiguities. Among the issues that were raised, but unanswered in this study, was the relative academic growth experienced by exceptional and regular education students in inclusionary settings. Large sample sizes possibly spanning multiple districts would be required to analyze these two groups separately. An additional question pertains to exploring the relationship between the instructional environment and academic achievement. A possible means of exploring this relationship would be to convert the qualitative data into a rating scale that measures the extent to which inclusionary practices are being implemented in a classroom setting. Such a quantified version of qualitatively obtained observational and interview data could then be used in follow-up statistical analyses. A third question might be whether the use of intact comparison groups would yield more realistic achievement differences. These questions can be examined simultaneously through the use of large scale research which utilizes hierarchical linear models. Such models are specifically designed to analyze nested data structures (classes within schools, students within classes), and as such, can incorporate data on classroom environments. Hierarchical linear modeling eliminates the need for matched control groups. As a result, it is possible to examine intact groups of students regardless of between group differences.

It has been written that inclusion is a moral question, a human right, not worthy of formal research at all. However, as educational structures continue to fluctuate and recombine, and funding structures continue to erode, the inclusion of students with varying exceptionalities will be an ever present phenomenon worthy of the retraining or “humanization” of teachers, administrators, and the systems that influence them.

REFERENCES

Achinstein, B. (2002). Conflict amid community: the micropolitics of teacher collaboration [Electronic version]. *Teacher's College Record, 104* (3), 421 – 455.

Ahonen, S. (200). From an industrial to a post-industrial society: changing conceptions of equality in education [Electronic version]. *Education Review, 54* (2), 173 – 181.

Ainscow, M., Farrell, P. Tweddle, D., & Malki, G. (1999). The role of LEAS in developing inclusive policies [Electronic version]. *British Journal of Special Education, 26* (3), 136 – 140.

Anastasti A. (1976). *Psychological testing*. Uppersaddle River, New Jersey: Prentice-Hall

Anderson, J. (1999). Post-industrialist solidarity or meritocracy? [Electronic version]. *Acta Soliologica, 42* (4), 375 – 386.

Austin, V. L. (2001). Teachers' beliefs about co-teaching [Electronic version]. *Remedial & Special Education, 22* (4), 245 – 258.

Banerji, M., & Dailey, R. A. (1995). A study of the effects of an inclusion model on students with specific learning disabilities. *Journal of Learning Disabilities, 28* (8), 511 – 529.

Becker, L. (1999). GLM: simple main effects (SPSS 8.0). Advanced statistics lecture notes. Boulder, Colorado: University of Central Colorado. Retrieved May 15, 2003 from: http:// www.uccs/edu/becker/spss80/91m-sm-80.htm.

Benjamin, F. (2000). The scholarship of teaching in teams: what does it look like in practice [Electronic version]? *Higher Education Research & Development, 19* (2), 191 – 204.

Bogdan, R.C., & Bilken, S.K. (2003). *Qualitative research for education: An introduction to theories and methods.* Boston, MA: Pearson Educational Group, Inc.

Borman, G. D. (2000). Title I: the evolving research base [Electronic version]. *Journal of Education for Students Placed At Risk, 5* (1/2), 1 – 13.

Bradshaw, J. (2003). Paige releases principles for reauthorizing individuals with disabilities education act (IDEA). U.S. Department of Education Press Releases. Retrieved from http://www.ed.gov/press releases/02-2003/02252003.html

Briggs, & Peat, D. (1990). *Turbulent mirror*. New York: Harper & Row, Publishers, Inc.

Brine, J. (2001). Education, social exclusion and the supranational state [Electronic version]. *International Journal of Inclusive Education, 5* (2/3), 119 – 131.

Brown, B. B. (1968*). The experimental mind in education.* New York: Harper & Row, Publishers

Campbell, D. T., & Stanley, J. C. (1963). *Experimental and quasi-experimental designs for research.* Boston: Houghton-Mifflin Company.

Chapman, C. (1999). Collaborative teacher education. *Rural Special Education Quarterly 18* (3), 36 – 43.

Clark, C., Dyson, A., Millward, A., & Robson, S. (1999). Theories of inclusion, theories of schools: deconstructing & reconstructing the inclusive school [Electronic version]. *British Education Research Journal, 25* (2), 157 – 177.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Hillsdale, NJ: Lawrence Erlbaum & Associates.

Cortina, J. M., & Nouri, H. (2000). *Effect size for ANOVA designs*. (Sage University Papers Series on Quantitative Applications in the Social Sciences, series no. 07 – 129). Thousand Oaks, CA: Sage Publications.

Creswell, J. W. (1998). *Qualitative inquiry and research design*. Thousand Oaks, California: Sage Publications, Inc.

Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, California: Sage Publications.

Cumming, G. (2002). Explanatory software for confidence intervals. Retrieved June 13, 2003

from Latrobe University Psychology Department Website: http://www.latrobe.edu.au/psy/esci/

D'Agostino, J. V., Borman, G. D., Hedges, L. V., & Wong, K. K. (1998). Longitudinal achievement and chapter 1 coordination in high-poverty schools; a multilevel analysis of the prospects data [Electronic version]. *Journal of Education for Students Placed At Risk, 3* (4), 401 – 420.

Denzin, N. K., & Lincoln, Y. S. (1998). *The landscape of qualitative research*. Thousand Oaks, California: Sage Publications.

Dyson, A., & Polat, F. (2004). Inclusion and pupil achievement lecture notes. Lecture presented at the American Educational Research Association Annual Meeting, San Diago, CA.

Dyson, A. (2001). Special needs in the twenty-first century: where we've been and where we're going [Electronic version]. *British Journal of Special Education, 28* (1), 24 – 29.

Dyson A., & Millward, A. (2001) *Schools and special needs: Issues of innovation and inclusion*. London, U.K.: Sage Publications.

Duffy, M. (2001). Advanced qualitative analysis lecture notes. Miami, Florida: Barry University

Edwards, R., Armstrong, P., & Miller, N. (2001). Include me out: critical readings of social exclusion, social inclusion, and lifelong learning [Electronic version]. *International Journal of Lifelong Learning, 20* (5), 417 – 428.

Feiman-Nemser, S. (2001) From preparation to practice: Designing a continuum to strengthen and sustain teaching [Electronic version]. *Teachers College Record, 103* (6), 1013 – 1055.

Fisher, D., & Frey, N. (2001). Access to the core curriculum [Electronic version]. *Remedial & Special Education, 22* (3), 148 – 158.

Florian, L., & Rouse, M. (2004). Inclusion and achievement: The effects of inclusive schooling

on SEN and non-SEN student achievement in mainstream schools. Unpublished manuscript, University of Cambridge Faculty of Education.

Florida Department of Education (2004). State of Florida Retention Policy: Reading Promotion. Retrieved June 21, 2004 from http://www.firn.edu/doe/commhome/progress/

Florida Department of Education (2003). Florida Comprehensive Assessment Test: FCAT scores and reports. Retrieved June 13, 2003 from: http://www.firn.edu/doe/sas/fcat/fcatscor.htm

Garner, P. (2000). Pretzel only policy? Inclusion and the real world of initial teacher education [Electronic version]. *British Journal of Special Education, 122* (3), 111- 116.

Gehrke, J. (1998). A look at curriculum integration from the bridge [Electronic version]. *The Curriculum Journal, 9* (2), 247 – 260.

Glatthorn, A. A. (1998). *Writing the winning dissertation*. California: Corwin Press.

Greene, J. C., Caracelli, V. J., & Graham, W. F. (1989). Toward a conceptual framework for mixed-method evaluation design. *Educational Evaluation and Policy Analysis, 11* (3), 255 – 274.

Green, S. K., & Gredler, M. E. (2002). A review and analysis of constructivism for school-based practice [Electronic version]. *School Psychology, 31* (1), 53 – 70.

Henning, M., & Mitchell, L. (2002). Preparing for inclusion [Electronic version]. *Child Study Journal, 32* (1), 19 – 29.

Huber, K. D., & Rosenfeld, J. G., & Fiorello, C. A. (2001). The differential impact of inclusion and inclusive practices on high, average, and low achieving general education students. *Psychology in the Schools, 38* (6), 497 – 505.

Hunt, P., Soto, G., Maier, J., Muller, E., & Goetz, L. (2002). Collaborative teaming to support students with augmentive and alternative communication needs in general education

classrooms [Electronic version]. *Augmentative and Alternative Communication, 18* (1), 1 – 28.

Huston, A. C., McLoyd, V. C., & Coll, C. G. (1994). Children and poverty: issues in contemporary research [Electronic version]. *Child Development, 65*, 275 – 282.

IDEA 1997 – 1998. IDEA '97 Final Regulations: 34 CFR Part 300, Assistance to States for Education of Children with Disabilities (Part B of the Individuals with Disabilities Act). Retrieved on April 11, 2003 from http://www.ideapractices.org/law/regulations/regs/subpart A.php

Imants, J. (2002). The counterproductive effects of a national reform initiative: Reflections from organizational theory [Electronic version]. *School Effectiveness and School Improvement, 13* (1), 31 – 61.

Inclusive Education Resource (2003). Inclusion in statewide assessments slow, survey suggests [Electronic version]. *Inclusive Education Programs*, 10 (2), 1 – 2,

Kaczmarcik, P. M. (1996). Inclusion: perceived problems and possibilities for secondary administrators [Electronic version]. *Dissertation Abstracts International, 57* (03).

Katsiyannis, A., & Conderman, G. (1995). State practices on inclusion [Electronic version]. *Remedial Special Education, 16* (5), 279 – 288.

Kincaid, H. (1996). *Philosophical Foundations of the Social Sciences*. New York: Cambridge University Press.

King, K. L., Houston, I. S., & Middleton, R. A. (2001). An explanation for school failure: moving beyond black inferiority and alienation as a policy-making agenda [Electronic version]. *British Journal of Education Studies, 44* (4), 428 – 445.

Kugelmass, J. W. (2001). Collaboration and compromise in creating and sustaining an inclusive school [Electronic version]. *International Journal of Inclusive Education, 5* (1), 47 – 65.

Levitt, J. (2002). *First interim report prekindergarten longitudinal study 1993-2007 grade 5 1999-2000 overall school outcome analysis.* Miami-Dade County Public Schools.

Levitt, J., Shay, S., Hanson, M., Naya, D., & Urdegar, S. (2003). *Title I evaluation summary report, 2001 – 02*. Miami-Dade County Public Schools, 8 – 29.

Lipsey M. W., & Wilson, D. B. (1993). The efficacy of psychological, education, and behavioral treatment: Confirmation from meta-analysis [Electronic Version]. *American Psychologist 48* (12), 1181 – 1209.

Lipsey, M. W. (1990) *Design sensitivity: Statistical power for experimental research*. Newbury Park, CA: Sage Publications.

Manset, G., & Semmel, M. I. (1997). Are inclusive programs for students with mild disabilities effective? A comparative study of . . . [Electronic Version]. *Journal of Special Education, 31* (2), 1 – 26.

Marfo, K., Harris, D., & Dedrick, R. (2002). *Empirical Perspectives on Inclusive Education and Co-Teaching*. Round table session presented at the annual meeting of the American Education Research Association, New Orleans, Louisiana.

Matlock, E. A. (1999). Differences in elementary school teachers' instructional environments and perceived competence toward children with ADHD as a function of attitudes toward control vs. autonomy, training, and experience (attention deficit hyperactivity disorder) [Electronic version]. *Dissertation Abstracts International, 60* (08).

McCarthy, M. (1994). Inclusion and the law: recent judicial developments [Electronic version]. *Phi Delta Kappa Center for Evaluation, Development, and Research, 13*, 1 – 7.

McLoyd, V. C. (1998). Socioeconomic disadvantage and child development [Electronic version]. *American Psychologist, 53* (2), 1 – 29.

Morrison, G. (1991). *Early Childhood Education Today*. New York: Merrill.

Milbourne L. (2002). Unspoken exclusion: Experiences of continued marginalization from education among 'hard to reach' groups of adults and children in the UK [Electronic version]. *British Journal of Sociology of Education 23* (2), 287 - 305.

No Child Left Behind Act of 2001, Pub. L. No. 107-110, 115 Stat. 1425 (2002).

Oelkers, J. (2002). Rousseau and the image of modern education [Electronic version]. *Journal of Curriculum Studies, 34 (*6), 679 – 698.

Office of Assessment & Data Analysis (2003). *Miami-Dade County Public Schools testing calendar, 2003-04.* Miami, FL: Miami-Dade County Public Schools.

Office of Exceptional Student Education (2002). *Manual of inclusive practices*. Miami, FL: Miami-Dade County Public Schools

Patton, J. R., & Polloway, E. A. (1993). *Strategies for teaching learners with special needs*. New York: Macmillan Publishing Company.

Parker, D. H. (1963). *Schooling for individual excellence.* New York: Thomas Nelson & Sons.

Pirie, B. S. (1996). Inclusion, its feasibility: a case study at an elementary school [Electronic version]. *Dissertation Abstracts International, 57* (03).

Pisapia, J. (n.p.). *Educational administration: Foundations and futures*. Unpublished manuscript.

Pitasky, V. M. (1998). A look at how 1997 case law has shaped inclusion [Electronic version]. *Inclusive Education Programs, 5* (2), 1 – 14.

Raines, J. C. (1996). Appropriate versus least restrictive: educational policies and students with disabilities [Electronic version]. *Social Work in Education, 96* (18), 113 – 128.

Rea, P. J., McLaughlin, V. L., & Walther-Thoman, C. (2002). Outcomes for students with learning disabilities in inclusive and pullout programs [Electronic Version]. *Exceptional Children 68* (2), 203 – 222.

Shay (2000). *A longitudinal study of achievement outcomes in a privatized public school: A*

growth curve analysis. Unpublished doctoral dissertation, University of Miami, Coral Gables, Florida.

Sowell, T. (1987) *A conflict of visions*. New York: William Morrow and Company, Inc.

Soy, S. (1998). The case study as research method [Electronic version]. *Users & Users of Information – LIS 391D.1,* 1 -9.

Stake, R. E. (1995). *The art of case study.* California: Sage Publications, Inc.

Stevens J. P. (2002). *Applied multivariate statistics for the social sciences*. Mahwah, New Jersey: Lawrence Erlbaum Associates, Publishers.

Stough, L. M., & Palmer, D. J. (2003). Special thinking in special settings: a qualitative study of expert special educators [Electronic version]. *Journal of Special Education, 36* (4), 206 – 223.

Strauss, A. L., & Corbin, J. (1998). *Basics of qualitative research: Grounded theory procedures and techniques.* Newbury Park, CA: Sage Publications.

Tashakkori , A., & Teddlie, C. (2003). *Handbook of mixed methods in the social sciences.* Thousand Oaks, CA: Sage Publications

Taylor, D. L., & Teddlie, C. (1998). A child's day at school: variations in more and less effective schools in low- and middle-socioeconomic status contexts [Electronic version]. *Journal of Education for Students Placed At Risk, 3* (2), 115 – 132.

Tellis, W. (1997). Application of a case study methodology [Electronic version]. *The Qualitative Report, 3* (3), 1 – 17.

Urdegar, S. (2003). [Correlation between the pre-test and post-test FCAT-NRT scores of students in high-poverty elementary schools]. Unpublished raw data.

U.S. Census Bureau (2000). *Statistical abstract of the united states: 2000*

U. S Bureau of Labor Statistics (2001). Poverty 2001 – Poverty Thresholds 2001. Retrieved

September 17, 2003 from: http://www.census.gov/hhes/poverty/threshld/thresh01.html

Valentine, G., Holloway, S., & Bingham, N. (2002). The digital generation?: Children, inclusion, and the everyday nature of social exclusion [Electronic version]. *Antipode, 34* (2), 296-316.

Wang, M. C., & Reynolds, M. C. (1996). Progressive inclusion: Meeting new challenges in special education [Electronic version]. *Theory into Practice Journal, 35* (1), 20 – 25.

Wang, M. C. (1988). Integrating the children of the second system [Electronic version]. *Phi Delta Kappan, 70* (3), 248 – 251.

Ysseldyke, J., & Christenson, S. (2002). *Functional Assessment of Academic Behavior*. Longmont, Colorado: Sopris West

Ysseldyke, J., & Christenson, S. (1993). *The Instructional Environment System-II: A System to Identify a Students' Instructional Needs Second Edition*. Long Mont, Colorado: Sopris West, Inc.

Zigmond, N. (2001). Special education at a crossroads [Electronic version]. *Preventing School Failure, 45* (2), 70 – 78.

Appendix A

Barry University Research with Human Participants Protocol Form

Barry University

Research with Human Participants Protocol Form

PROJECT INFORMATION

Title of Project

An Evaluative Study of Inclusionary Practices in High-Poverty Elementary Schools and their Effect on Student Achievement

Principal Investigator

Frances J. Koch
2912 North Belmont Lane
Cooper City, FL 33026

Home: (954) 433-8251
E-Mail: **fkstudio@highstream.net**

Faculty Sponsor

Sr. Phyllis Superfisky, O.S.F., Ph.D.
Assistant to the Dean, Associate Professor
Adrian Dominican School of Education
Barry University
School of Education
(305) 899-3725

S. Phyllis Superfisky — Signature

09-26-2003 — Date

Funding Agency or Research Sponsor

No funding is being sought for this dissertation.

Proposed Project Dates

Start: **January 1, 2004**
End: **December 31, 2004** (Student data available August 2004)

Please Provide the Information Requested Below

A. Project activity STATUS is: (Check one of the following three as appropriate.)

X NEW PROJECT
___ PERIODIC REVIEW ON CONTINUING PROJECT
___ PROCEDURAL REVISION TO PREVIOUSLY APPROVED PROJECT
(Please indicate in the **PROTOCOL** section the way in which the project has been revised.

B. This project involves the use of an **INVESTIGATIONAL NEW DRUG (IND) OR AN APPROVED DRUG FOR AN UNAPPROVED USE** in or on human participants.
___ YES X NO
Drug name, IND number and company: **N/A**

C. This project involves the use of an **INVESTIGATIONAL MEDICAL DEVICE (IMD)** or an **APPROVED MEDICAL DEVICE FOR AN UNAPPROVED USE.**
___ YES X NO

D. This project involves the use of **RADIATION** or **RADIOISOTOPES** in or on human participants.
___ YES X NO

E. This project involves the use of Barry University students as participants. (If any students are minors, please indicate this as well.)
___ YES X NO
___ MINORS

F. **HUMAN PARTICIPANTS** from the following population(s) would be involved in this study:

___ Minors (under age 18)
___ Abortuses
___ Prisoners
___ Mentally Disabled
___ Other institutionalized persons (specify)
X Other (specify)
Teachers
___ Fetuses
___ Pregnant Women
___ Mentally Retarded

G. Total Number of Participants to be Studied: **~18**

Description of Project

1. Abstract

In 1997, the reauthorization of the Individuals with Disabilities Education Act of 1990 (IDEA) mandated that all students with disabilities were to participate in statewide assessments (Inclusive Education Resource, 2003). Owing to this, there has been a recent increase in the number of schools that have opted for full-time inclusive classrooms over traditional resource programs. The purpose of the proposed concurrent mixed-model study will be to determine the extent to which inclusionary practices impact the learning environment and academic achievement of inclusive students in high-poverty elementary schools. Approximately 225 students, in inclusionary classrooms in grades 3 through 5, will be observed receiving instruction from nine co-teaching pairs. The 18 teachers will also be interviewed. Collaborative planning, classroom management, and inclusionary instructional practices will be explored using The Instructional Environment System-II (TIES-II) Extended Teacher Interview form (Ysseldke & Christenson, 2002), classroom observations guided by the TIES-II Observation Record, and school documents. The achievement of the students observed in inclusionary settings will be compared to a virtual control group. The control group will be drawn from all the non-inclusionary schools throughout the district with the same School Accountability Grade and similar proportions of students eligible for free and reduced-priced lunch using a stratified random sampling of students within selected demographic categories. A one-between one-within-subjects quasi-experimental design (Becker, 1999; Stevens, 2002), will be used to assess the impact of inclusion at grades 3, 4, and 5 on students' Florida Comprehensive Assessment Test, Norm Referenced Test scores in reading and mathematics. The proposed research will not only provide portraits of inclusionary classroom practices, but will provide a measure of the impact of inclusionary practices on students' academic achievement.

2. Recruitment Procedures

A list of elementary schools with inclusion programs intact for greater than one year was provided to the researcher through the Miami-Dade Public School's Office of Inclusion Programs. Using the District and School Profiles of the M-DCPS and the Florida Department of Education School Accountability Report, the researcher then selected three high-poverty elementary schools from the list of schools with inclusion programs in progress for greater than one year, with school accountability grades of a C as assigned by the Florida Department of Education, and the percentage of students (80 – 90 percent) who qualify for federal lunch assistance. Schools were also chosen to be ethnically dissimilar to insure that the results of the study combined across the three schools will generalize to the population at large.

Upon the approval of the M-DCPS Research Review Committee, prospective principals will be contacted by phone and through the attached letter. Co-teachers in inclusionary classrooms in grades three, four, and five will be identified through the recommendation of school site administrators. The researcher will meet with co-teachers at each school during teachers' planning time and review the teacher recruitment letter (attached). Teacher participation will be voluntary. Teachers will sign the attached consent form and each will be given a copy. Potential interviews and classroom visitations will be scheduled with the teachers at that time, also.

3. Methods

Co-teachers in grades three through five who choose to participate in the study will be interviewed using an adapted version of the Functional Assessment of Academic Behavior (FAAB) Extended Teacher Interview Form. Their inclusionary classrooms will be observed using the FAAB Classroom Observation Record.

Functional Assessment of Academic Behavior (FAAB):

The qualitative section of the proposed study will utilize an evaluation system developed by Ysseldyke & Christenson (2002), which was developed to address "a gap in traditional special education assessment procedures" and to identify specific teacher behaviors and classroom conditions associated with positive learning outcomes. The classroom observation record contained within the FAAB (2002) will allow the researcher to gauge perceptions about the quality of the classroom instructional environment. Ysseldyke and Christenson (2002) in the (FAAB) manual have given permission to reproduce forms included in the FAAB. The FAAB includes data gathering forms used in the original The Instructional Environment System-II (TIES-II, 1993) system. The researcher will use two of the original TIES-II forms: The Observation Record and the Supplemental Teacher Interview Questions contained within the FAAB (2002) manual. Both are qualitative in nature. The Observation Record focuses on the student in relationship to task characteristics, instruction, and management strategies. The Supplemental Teacher Interview Questions cover 12 instructional supports for learning components and illustrate different ways to gather information about instructional conditions that affect student performance. Ysseldyke (2003, personal conversation) has also given the researcher permission to exclusively use, select, and revise questions in the Extended Teacher Interview Form in conjunction with the Observation Record contained within the FAAB.

Inter-rater reliability for the original TIES-II (1993) was calculated by computing intra-class correlations using a procedure outlined by Shrout and Fleiss (1979). Twenty-eight observers watched tapes of each of two teachers instructing a small group of elementary-age students. Observers completed the observation record and were given copies of the completed Teacher and Student Instructional Records. They completed the scale on the basis of observations and interview data. All inter-rater reliabilities exceeded .80; two exceeded .90. Inter-rater agreement was checked as part of a study of the observers' ratings of the qualitative nature of instruction for students under different student teacher ratios. Thirty-eight pairs of observers observed the same student for one hour during either reading or mathematics instruction. Exact agreement and grouped agreement were examined. Inter-rater agreement on exact ratings was 48.8 percent and for grouped ratings was 76.2 percent. According to Ysselydke and Christenson (1993) ratings to were to be expected due to the complexity of instructional environments.

Content validity of TIES-II (1993) was established through an intensive review of the literature on predictors of positive outcomes for students. Factors selected for TIES-II were those repeatedly mentioned in the literature. Pilot studies reduced the original 200 descriptive statements to a 12-component scale used for teacher interviews and observations. Verified was that TIES-II is a systematic way to gather information about students' environments. TIES-II data and achievement data on a sample of 176 students in general education environments and 215 students in special education environments were examined. Correlations in general

education environments were moderate. Variability in instructional environments was also verified. Investigations were conducted observing students with mild disabilities in regular education classrooms across subjects and in mathematics and reading instruction. Ratings were completed in general education versus special education classes across subject matter. Significant differences were reported as a function of setting. Appropriateness of instructional environment was higher for special education settings ($p < .01$).

The interview and observation record have been reviewed in the *Mental Measurements Yearbook* under The Instructional Environment System-II (TIES-II).

4. Alternative Procedures

Participation in the proposed study will be voluntary. Participants will sign the attached consent form and each will be given a copy. If one of the three schools contacted is unwilling to participate, an alternative school from the list of inclusive schools with inclusion programs in progress for greater than one year, will be selected by repeating the same criteria for selection described in the recruitment section of this document and in Chapter III of the proposal.

5. Benefits

Zigmond (2001) notes that much of the research on inclusionary practices in the United States has not been generalizable to the population at large and that few studies in the United States have linked classroom practices to student achievement scores. Zigmond also distinguishes that research on specific aspects of the inclusionary model such as co-teaching have been exclusively limited to elementary school settings and that the bulk of the recent research literature, 40 such articles reviewed by Welch, Brownell, & Sheridan (1999), contain little empirical data. Hence, studies on inclusionary practices have been mostly descriptive in nature. Presently, ESE students are being held to high stakes testing guidelines. Owing to this, in February of 2003, the U.S. Department of Education stated that it was considering discontinuing funding to purely qualitative projects (Inclusive Education Resource, 2003).

6. Risks

Subjects in the proposed study will not be placed at psychological risk. Participation in the teacher interviews and classroom observations will be voluntary. If a teacher later decides that s/he does not want specific information to be used in the proposed study, s/he can request that it not be used. The use of a tape recorder for teacher interviews will be voluntary, also. If a tape recorder is used, once an interview has been transcribed, any interview tapes will be erased. All references to an individual, individuals, or a specific school, will be coded in the researcher's notes and/ or in the researcher's transcriptions. Random codes or letters will be assigned to denote individuals and/ or schools. To further protect teachers' identities, the dissertation, as well as any publications resulting from the proposed study, will be written without identifying information. Data secured from the M-DCPS archives will not have any student identification numbers. There is no potential physical harm associated with the proposed study.

It is hoped that teachers will be eager to contribute to the field. The information provided through interviews and observations may possibly be utilized for program development and new approaches for working with students in high poverty schools. Further, Denzin & Lincoln (1998) note that a validation of participants' knowledge can lead to their empowerment.

7. **Anonymity/Confidentiality**

Interview data will not be used as an evaluation of a specific school or teacher. Teachers' names will remain confidential. Once an interview has been transcribed, interview tapes will be erased. All references to an individual, individuals, or a specific school will be deleted from transcriptions. Any publications from this study will be written without identifying information. Random codes or letters will be assigned to denote individuals and/ or schools. Data secured from the M-DCPS archives will not have any student identification numbers.

8. Consent

Please see the attached forms:

- Miami-Dade County Public Schools, Research Review Form; (Chapters I, II, III will serve as the required Prospectus)
- Request for Data Letter (M-DCPS)
- Informational Letter/ School Administrator
- Informed Consent for Teachers
- A sample copy of the TIES-II Extended Interview Form
- A sample copy of the TIES-II Observational Record
- A copy of a TIES-II *Mental Measurements Yearbook* review
- Certificate of completion of the online Human Participants Protection Education for Research
- Copies of correspondence with Jim Ysseldyke at the University of Minnesota and the M-DCPS Office of Inclusion Programs

Certification

I certify that the protocol and method of obtaining informed consent as approved by the Institutional Review Board (IRB) will be followed during the period covered by this research project. Any future changes will be submitted to IRB review and approval prior to implementation. I will prepare a summary of the project results annually, to include identification of adverse effects occurring to human participants in this study.

T Kush
Principal Investigator

9-26-2003
Date

Reminder: **Be sure to submit thirteen (13) copies of this form with your application.**

Appendix B

Human Participant Protections Education for Research Teams Completion Certificate

Completion Certificate

This is to certify that

Frances Koch

has completed the **Human Participants Protection Education for Research Teams** online course, sponsored by the National Institutes of Health (NIH), on 03/10/2003.

This course included the following:

- key historical events and current issues that impact guidelines and legislation on human participant protection in research.
- ethical principles and guidelines that should assist in resolving the ethical issues inherent in the conduct of research with human participants.
- the use of key ethical principles and federal regulations to protect human participants at various stages in the research process.
- a description of guidelines for the protection of special populations in research.
- a definition of informed consent and components necessary for a valid consent.
- a description of the role of the IRB in the research process.
- the roles, responsibilities, and interactions of federal agencies, institutions, and researchers in conducting research with human participants.

National Institutes of Healtl
http://www.nih.go

Appendix C

Miami-Dade County Public Schools (M-DCPS) Research Review

Miami-Dade County Public Schools
APPLICANT IDENTIFICATION FORM
Research Review Committee

Instructions: Submit one copy.

Title of research project: A Study of the Effects of Inclusionary Practices in High Poverty Elementary Schools

Request number (MDCPS use only): _____

Name of applicant: Frances J. Koch

Business address: North Glade Elementary
5000 NW 177 Street
Miami, FL 33055

Home address: 2912 North Belmont Lane
Cooper City, FL 33026

Business phone: (954) 649-2635

FAX number: (954) 433-8251

Home phone: (954) 433-8251

Miami-Dade County Public Schools
RESEARCH REVIEW FORM
Research Review Committee

Instructions: Submit six copies of this form and six copies of the Prospectus.

Title of research project: An Evaluative Study of Inclusionary Practices in High-Poverty Elementary Schools and their Effect on Student Achievement	Request number: _____ (MDCPS use only)

2. Reason the project is being conducted (e.g., dissertation, comply with grant): Dissertation

3. Name of university/agency with which applicant is affiliated (if applicable): Barry University, Adrian Dominican School of Education

4. Name, title and signature of the student advisor certifying that the Prospectus is acceptable (if applicable):

Sr. Phyllis Superfisky, OSF, Ph.D (Name) Associate Professor (Title) Sr. Phyllis Superfisky (Signature)

5. Anticipated starting date: January 1, 2004

6. Anticipated completion date: December 31, 2004

7. General purpose of the research: To determine the extent to which inclusionary practices impact the learning environment. An additional purpose will be to explore the effects of inclusion on students' academic achievement.

8. The two primary questions that this study will attempt to answer are, To what extent, if any, do inclusionary practices impact the learning environment of students in high-poverty elementary schools? And, to what extent, if any, do inclusionary practices impact the academic achievement of inclusionary students in high-poverty elementary schools? In the qualitative portion of the proposed study the first question will subsume several related questions:

1. What are the perceptions of collaborative planning of co-teachers in an inclusionary model of instruction?
2. How do teachers interpret adaptation of curriculum for inclusionary students?
3. How do teachers manage inclusionary students?

The quantitative portion of the proposed study will attempt to answer the second primary research question.

4. How do the norm-referenced reading and mathematics scores of students in inclusionary settings compare with their counterparts in non-inclusive settings?

9. List the sources of data that are not dependent on school/district records.

Functional Assessment of Academic Behavior (FAAB):

The qualitative section of the proposed study will utilize an evaluation system developed by Ysseldyke & Christenson (2002), which was developed to address "a gap in traditional special education assessment procedures" and to identify specific teacher behaviors and classroom conditions associated with positive learning outcomes. The classroom observation record contained within the FAAB (2002) will allow the researcher to gauge perceptions about the quality of the classroom instructional environment. Ysseldyke and Christenson (2002) in the (FAAB) manual have given permission to reproduce the forms included in the FAAB. The FAAB includes data gathering forms used in the original TIES-II (1993) system. The researcher will use two of the original TIES-II forms: The Observation Record and the Supplemental Teacher Interview Questions contained within the FAAB (2002) manual. Both are qualitative in nature. The Observation Record focuses on the student in relation to task characteristics, instruction, and management strategies. The Supplemental Teacher Interview Questions cover 12 instructional supports for learning components and illustrate different ways to gather information about instructional conditions that affect student performance. Ysseldyke (2003, personal conversation) has also given the researcher permission to exclusively use, select, and revise questions in the Extended Teacher Interview Form in conjunction with the Observation Record contained within the FAAB.

Inter-rater reliability for the original TIES-II (1993) was calculated by computing intra-class correlations using the procedure outlined by Shrout and Fleiss (1979). Twenty-eight observers watched tapes of each of two teachers instructing a small group of elementary-age students. Observers completed the observation record and were given copies of the completed Teacher and Student Instructional Records. They completed the scale on the basis of observations and interview data. All inter-rater reliabilities exceeded .80; two exceeded .90. Inter-rater agreement was checked as part of a study of the observers' ratings of the qualitative nature of instruction for students under different student teacher ratios. Thirty-eight pairs of observers observed the same student for one hour during either reading or mathematics instruction. Exact agreement and grouped agreement were examined. Inter-rater agreement on exact ratings was 48.8 percent and for grouped ratings was 76.2 percent. According to Ysselydke and Christenson (1993) ratings to were to be expected due to the complexity of instructional environments.

Clear evidence for the content validity of TIES-II (1993) was also documented. First, content validity was established for how the instructional components for TIES-II are related to academic achievement. TIES-II data and achievement data on a sample of 176 students in general education environments and 215 students in special education environments were examined. Correlations in general education environments were moderate. Variability in instructional environments was also verified. Investigations were conducted observing students with mild disabilities in regular education classrooms across subjects and in mathematics and reading instruction. Students were also observed in special education settings in reading and mathematics instruction. Notable was that TIES-II component 4, (Cognitive Emphasis) was rated most often as missing or inappropriate. Reported was that drill and practice were used extensively for individual students with disabilities during reading and math instruction across instructional settings in general and special education classes and that instruction in thinking skills was incorporated through lessons in other content areas.

The interview and observation record have been reviewed in the *Mental Measurements Yearbook* under The Instructional Environment System-II (TIES-II).

10. List the sources of data that are dependent on school/district records. Be specific (e.g., academic grades, attendance).

The following demographic and assessment information for all students in grades 3, 4, and 5, during the 2003-04 school year, who were enrolled in Title-I funded locations in the same School, Grade and Section at three discrete points in time: October 2003, February 2004, and March (norm referenced testing) 2004: School, Grade, Section, Sex, Ethnicity, Age (years), Free/ Reduced Priced Lunch Status, English for Speakers of Other Languages (ESOL) Level, Exceptional Student Education (ESE) Primary Code, ESE-Time-Total-School-Week, and ESE-Time-with-Non-Disabled; and Reading Comprehension and Mathematics Applications scaled scores from the 2002-03 and 2003-04 administrations of the SAT-9 (grade 2) and FCAT-NRT (grades 3-5).

11. Indicate the number of participants and/or subjects in the research. Use the total column if the grade designation is not applicable.

	Grade													
Participants	K	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
Students				75	75	75								225
Teachers				6	6	6								18
Principals														
Parents														

Note. Classroom observations will be conducted to examine teacher performance and interaction with students. Data from students will be archival only. No additional student participation will be required

12. Office/school level/s targeted by the research:

( ) district office
( ) region office
(X) elementary school
( ) middle school
( ) senior high school

13. Estimate the amount of time the research project will require of each type of participant. List the time units in total and/or decimal parts of an hour (e.g., 1.5 hours, not 1 ½ hours or 90 minutes).

	Activity				
Participant	Testing/ Assessment	Training/ Inservice	Teaching/ Observation	Teacher/ Interviews	TOTAL
Students					
Teachers			2 hours	1 hour	3 hours
Principals					
Parents					

14. Expected value of the research to education:

Zigmond (2001) notes that much of the research on inclusionary practices in the United States has not been generalizable to the population at large and that few studies in the United States have linked classroom practices to student achievement scores. Zigmond also distinguishes that research on specific aspects of the inclusionary model such as co-teaching have been exclusively limited to elementary school settings and that the bulk of the recent research literature, 40 such articles reviewed by Welch, Brownell, & Sheridan (1999), contain little empirical data. Hence, studies on inclusionary practices have been mostly descriptive in nature. Presently, ESE students are being held to high stakes testing guidelines. Owing to this, in February of 2003, the U.S. Department of Education stated that it was considering discontinuing funding to purely qualitative projects (Inclusive Education Resource, 2003).

15. Expected value of the research to the Miami-Dade County Public Schools:

In 1997, the reauthorization of the Individuals with Disabilities Education Act of 1990 (IDEA) mandated that all students with disabilities were to participate in statewide assessments (Inclusive Education Resource, 2003). With these changes in mind, educational accountability and the direct funding of the schools has become directly linked to teacher incentives, academic achievement, and student promotion. Owing to this, there has been a recent increase in the number of schools who have opted for full-time inclusive classrooms over traditional pull-out programs. As of the 2002 – 2003 school year, twenty-seven elementary and K – 8 centers in the M-DCPS had inclusionary programs in-progress for greater than one year. Therefore there is considerable interest in these programs and their efficacy as an important policy concern.

The proposed research will not only provide a portrait of inclusionary classroom practices in progress, but provide a measure of the impact of inclusionary practices on student achievement.

16. Is the applicant available to appear before the Research Review Committee?

(**X**) Yes ( ) No

17. Beginning with the Prospectus, list in order the titles of all the enclosed documents (e.g., instruments, parent permission form).

- Prospectus
- Notification from the Barry University IRB granting permission to start collecting data
- Barry University IRB protocol form which includes a/ an:

  -Informational Letter/ School Administrator
  -Informed Consent for Teachers
  -Sample copy of the revised TIES-II Extended Interview Form
  -Sample copy of the TIES-II Observational Record
  -TIES-II *Mental Measurements Yearbook* Review
  -Certificate of completion of the online Human Participants Protection
  -Education for Research
  -Copies of correspondence with Jim Ysseldyke at the University of Minnesota and the M-DCPS Office of Inclusion Programs

18. Indicate the anticipated date for submitting an abstract of the research findings to the Research Review Committee: September 3, 2004

Appendix D

M-DCPS Research Review Approval Letter

Miami-Dade County Public Schools

giving our students the world

Office of Evaluation and Research
Executive Director
Dr. Robert A. Collins

Miami-Dade County School Board
Dr. Michael M. Krop, Chair
Dr. Robert B. Ingram, Vice Chair
Mr. Agustin J. Barrera
Mr. Frank J. Bolaños
Mr. Frank J. Cobo
Ms. Perla Tabares Hantman
Ms. Betsy H. Kaplan
Dr. Marta Pérez
Dr. Solomon C. Stinson

Mr. Merrett R. Stierheim
Superintendent of Schools

December 18, 2003

Frances J. Koch
2912 North Belmont Lane
Cooper City, FL 33026

Dear Ms. Koch:

I am pleased to inform you that the Research Review Committee of the Miami-Dade County Public Schools (MDCPS) has approved your request to conduct the study, "An Evaluative Study of Inclusionary Practices in High-Poverty Elementary Schools and Their Effect on Student Achievement ." The approval is granted with the following conditions:

1. Participation of a school in the study is at the discretion of the principal. A copy of this approval letter must be presented to the principal.

2. The participation of all subjects is voluntary.

3. The anonymity and confidentiality of all subjects must be assured.

4. The study will involve approximately 18 MDCPS elementary teachers.

5. Disruption of the school's routine by the data collection activities of the study must be kept at a minimum.

6. The MDCPS internal school mail system cannot be used in conducting the study.

It should be emphasized that the approval of the Research Review Committee does not constitute an endorsement of the study. It is simply a permission to request the voluntary cooperation in the study of individuals associated with the MDCPS. It is your responsibility to ensure that appropriate procedures are followed in requesting an individual's cooperation, and that all aspects of the study are conducted in a professional manner. With regard to the latter, make certain that all documents and instruments distributed within the MDCPS as a part of the study are carefully edited.

The computer-generated data for the study will be provided by Ms. Gisela Feild of the Division of Data Quality Management of the MDCPS. Contact her at (305) 995-7511 to arrange a meeting to review your request and determine the cost.

The approval number for your study is 1015. This number should be used in all communications to clearly identify the study as approved by the Research Review Committee. The approval expires on June 30, 2005. During the approval period, the study must adhere to the design, procedures and instruments which were submitted to the Research Review Committee. If there are any changes in the study as it relates to the MDCPS, it may be necessary to resubmit your request to the committee. Failure to notify me of such a change may result in the cancellation of the approval.

If you have any questions, please call me at (305) 995-7501. Finally, remember to forward an abstract of the study when it is complete. On behalf of the Research Review Committee, I want to wish you every success with your study.

Sincerely,

Joseph J. Gomez, Ph.D.
Chairperson
Research Review Committee

JJG:fp

cc: Ms. Gisela Feild

APPROVAL NUMBER: 1015	APPROVAL EXPIRES: 6-30-05

Appendix E

Data Analysis Request Letter, M-DCPS

2912 North Belmont Lane
Cooper City, FL 33026
(954) 649-2635

January 6, 2004

Gisela Field, District Director
Miami-Dade County Public Schools
Office of Assessment & Data Analysis
1500 Biscayne Boulevard, Suite 226
Miami, FL 33132

Re: Data Analysis for Research Review

Dear Ms. Field,

I am completing my doctoral dissertation at Barry University. The research proposal before the M-DCPS Research Review Committee, if approved, will necessitate the compilation of student demographic and assessment information from archival computer records. I understand that your department handles items of this nature, so I have attached a service request to this letter which outlines my requirements.

Thank you for your assistance in this matter.

Sincerely,

Frances J. Koch

Attachment

cc: MDCPS Research Review Committee
Instructional Review Board, Barry University

Appendix F

Data Quality Management Service Request Form, M-DCPS

Data Quality Management
Service Request Form

REQUESTOR: Complete and e-mail to Gfeild@sbab.dade.k12.fl.us

Requested by: **Research Review** Number of Copies: 1		Current Date: January 5, 2004 Date Needed: When available Date Completed:

Service Requested:

In the form of a text file, please provide following demographic and assessment information for all students in grades 3, 4, and 5, during the 2003-04 school year, who were enrolled in Title-I funded locations in the same School, Grade, and Section at three discrete points in time; October 2003, February 2004, and March (norm referenced testing) 2004: School, Grade, Section, Sex, Ethnicity, Age (years), Free/ Reduced Priced Lunch Status, English for Speakers of Other Languages (ESOL) Level, Exceptional Student Education (ESE) Primary Code, ESE-Time-Total-School-Week, Collaborative Consultation Flag, and ESE-Time-with-Non-Disabled; and Reading Comprehension and Mathematics Applications scaled scores from the 2002-03 and 2003-04 administrations of the SAT-9 (grade 2) and FCAT-NRT (grades 3-5).

Please alter student identification numbers to guarantee anonymity.

Evaluation/Analysis Title: **Students Performance: Inclusion vs Control**

FOR USE BY DATA QUALITY MANAGEMENT DEPARTMENT ONLY.

Project No.:	Request No.:	Request Code:

Appendix G

Approach Letter, Prospective Principal

2912 North Belmont Lane
Cooper City, FL 33026

December 15, 2003

Dear Prospective Principal,

This letter is to request your participation in a dissertation project being conducted through the Adrian Dominican School of Education at Barry University, which has been approved by the Miami-Dade County Public School's Research Review Committee.

I would like to observe an inclusionary classroom at your school. I would also like to interview the co-teachers and/ or teachers in the inclusionary classroom. The number of co-teachers/ teacher participants in this study is expected to be 18 (two at each of nine schools). The focus will be to better understand how collaboration, curriculum adaptation, classroom management, and instructional practices are negotiated in an inclusive classroom.

Observations and teacher interviews will be guided by an observation record and a teacher interview form prepared by the researcher. Classroom observations will be conducted once and take up to two hours per inclusionary classroom. Teacher interviews will take approximately one hour per teacher.

Participation in the proposed study is voluntary. Participants will review and sign the attached consent form, and each will be given a copy. Information provided will be kept anonymous. No names or other identifiers will be collected on any of the instruments used. Random codes or letters will be assigned to denote individuals and/or schools. To further protect teachers' identities, the dissertation, as well as any publications that result from the study will be written without identifying information. Data will be kept in a locked file at the researcher's home and stored for three years, after which the data will be shredded. Taping of interviews will be voluntary, and any interview tapes will be erased immediately upon transcription which will occur no later than September of 2004. Interview data will not be utilized by a specific school and/teacher. Any published results of the research will refer to group averages only. No names will be used in this study.

It is hoped that your teachers will be eager to contribute to the field. The information provided through interviews and observations may possibly be utilized for program development and new approaches for working with students in high poverty schools.

If you have any questions or concerns regarding the study or your participation in the study, you may contact my Dissertation Chair, Sr. Phyllis Superfisky at (305) 899-3725, the Institutional Review Board (IRB) point of contact, Ms. Avril Brenner at (305) 899-3020, or me, Fran Koch, at (954) 649-2635. Thank you graciously for your participation.

Sincerely,

F Koch

Frances J. Koch

IRB

Date: 11/7/03

Appendix H

Barry University Informed Consent Letter

Barry University
Informed Consent Form

Your participation in a research project is requested. Fran Koch, a student in the Leadership and Education Department, at Barry University, is conducting the research. Mrs. Koch is seeking information that will be useful in the field of Exceptional Student Education. One of the goals of the research is to better understand how collaboration, curriculum adaptation, classroom management, and instructional practices are negotiated in inclusive classrooms. In accordance with these goals, the following data collection will be utilized: classroom observations and teacher interviews.

If you decide to participate in this research, you will be asked to participate in an interview and to allow the researcher to observe your inclusionary classroom for a maximum of two hours. Interviews will take approximately one hour.

Your consent to be a research participant is strictly voluntary and should you decline to participate, or should you choose to drop out at any time during the interview, there will be no adverse effects on your employment.

Although there are no direct benefits to you, your participation in this study will help in our understanding of inclusionary programs.

Two teachers at each of nine schools will be selected to participate in this study. Subjects in the study will not be placed at psychological risk or physical harm. As a research participant, information you provide will be held in confidence to the extent permitted by law. Random codes or letters will be assigned to denote individuals and/or schools. To further protect teachers' identities, the dissertation, as well as any publications from the study will be written without identifying information. Data will be kept in a locked file in the researcher's home for three years, after which the data will be shredded. The use of a tape recorder for interviews will also be voluntary and held confidential, and any interview tapes will be destroyed immediately upon transcription, which will occur no later than September of 2004. Interview data will not be utilized by a specific school and/ or teacher. Your signed consent form will be kept separate from the data. If a teacher later decides that s/he does not want specific information to be used in the study, s/he can request that it not be used. Any published results of the research will refer to group averages only. No names will be used in the study.

If you have any questions or concerns regarding the study, or your participation in the study, you may contact my Dissertation Chair, Sr. Phyllis Superfisky at (305) 899-3725, the Institutional Review Board (IRB) point of contact, Ms. Avril Brenner at (305) 899-3020, or me, Fran Koch, at (954) 649-2635. If you are satisfied with the information provided and are willing to participate in this research, please signify your consent by signing this consent form.

Voluntary Consent

I acknowledge that I have been informed of the nature and purpose of this study by Fran Koch and that I have read and understand the information presented above, and that I have received a copy of this form for my records. I give my voluntary consent to participate in this study.

Signature of Participant	Date
F Koch	11/7/03
Researcher	Date

IRB

Date: 11/7/03

Appendix I

Observation Record, Samples

School: Urban
Date: 02/17/04
Population: EH; SED

Subject: Reading/ Lang Arts
Grade: 4
Total Number of Students: 30

Classroom Description: A spacious third floor classroom. Two entryways suggest that at an earlier place in time it might have housed multiple classes. Once inside, a built-in bookcase, three feet high, divides the room into two equally distributed squares. On one side six computers line the west wall. A metal teacher's desk is positioned off to the side directly in front of the classroom windows. Unpacked cardboard boxes surround the front of the desk. Long rectangular tables with a hodge-podge of wooden stools and student chairs take up the remaining space. Open metal shelving has been squeezed behind students' tables. It houses rows and rows of worksheets and two FOSS kits. In contrast, on the other side of the classroom are desks that have been pushed together to form three groups of four. There is a teacher's desk also located toward the back of the room nearest to the windows. This desk is covered with an inconceivably high pile of paper. There is a built-in teacher's closet on this side of the room. It is full of unopened supplies in boxes that look as if they were thrown into place. The overall paint in the classroom is peeling and covered with piece after piece of fading yellow double-sided sticky tape. However, the teachers are cheerful, admirable, and friendly, and the students, charming. As I enter the room, one yells out, "Pick me, pick me!" in a high pitched voice. The regular education teacher sounds like a newscaster from the northern United States. She is thirty something, dressed in suit attire, and wearing a smile that takes up most of her face. She is perky and inviting. A small cross is visible around her neck. Similarly, the ESE teacher also exudes professionalism as she darts about the room with a clipboard recording points. She is strong, confident, animated, yet low-key. Her clothes are earth-toned and cotton. She wears the presence of one who lifts weights; the expression on her face frozen into place. I am immediately endeared to the two of them.

Instructional Planning: Neither teacher has lesson plans. I am told that these are written as the week progresses and that this is the result of hours and hours of initially meeting after school every day before December. Also, the school uses a direct instruction reading program which is scripted. Students are cross grouped for reading, and prior to the Florida Writes Test, fourth grade students were also cross-grouped according to their writing ability. Third grade students have been grouped up into this particular fourth grade reading class. The two teachers travel to other grade levels as well. Students with emotional handicaps have been dispersed throughout the two rooms as well as students with high levels of instructional confidence. Students generally work in groups of four. As observed during SRA instruction, students generally have a group activity at the conclusion of each reading in addition to individual assignments.

Instructional Management: A token society is utilized for all students. Every two weeks, students may use points earned to shop at the class point store. Both teachers purchase items for the store from their own funds. Items range from small metal cars to school supplies. Students receive points for on-task behaviors, completed homelearning assignments, and completed class assignments. The point system is managed by the EH teacher who utilizes a clip board to record points throughout the day. On several trips to the school I observed the EH teacher with her clipboard awarding points for on-task and improved behaviors. During instruction the EH teacher circulates throughout the room with her clipboard and point chart in hand. She also works with individual students and groups. Teachers rotate instruction. Students have a set

routine each morning. During the first half hour of each day, students complete unfinished homelearning assignments or correct class assignments.

Instructional Delivery:

Gen Ed teacher (GET): “Everyone should be in their seat for reciprocal teaching.” [Script passed out to students.] “Just a little review of reciprocal teaching. . . What are some of the skills that you need to use for reciprocal teaching? We talked about four skills, one skill a day. What do good readers do?”
Student: Predicting.
GET: “Okay, predicting is one skill that we can keep in mind.”
Student: Summarizing.
EH teacher: “Okay what does it mean to summarize?”
GET: Okay, I just saw Daredevil the movie. Am I going to tell you every scene? What am I going to do?
Student: “You’re going to tell what the whole story is about.
Student: “the main idea?”
Student: Pick me! Pick me!
GET: “Everyone knows how to ask a question. Who did this last year?”
GET: “You’re going to get in groups—one person will be the captain and one person will be the reader.
GET: “What’s another skill that we can use for reciprocal teaching?”
Student: Clarifying.
GET: “What is the definition of clarifying?” What task card is it coming from?”

The teaching assistant asks the EH teacher what to do with the graded papers. The EH teacher instructs the assistant to record the grades in the gradebook.

Student: “When you’re reading a story, you ask what benchmark it is coming from.”
GET: When you are to clarify something you’re going to make it as simple as possible.

The EH teacher adds definitions to concepts already listed on the chalkboard. The general education teacher checks to see that all students have a story in front of them.

GET: “Okay we’re going to get you in groups of four. Then you will pick a group monitor. Does that mean that they are a monitor everyday? Noooooooooooooooooooooooo. A new person will be the monitor every day. The teaching assistant is then asked to pick monitors. The EH teacher picks up, “Remember guys, we’re looking for someone to be responsible and a leader.” The EH teacher then groups students.

EH teacher; “In here, we’re like a family, I don’t want to hear that anyone doesn’t want to work with each other. Remember, you’re going to get participation points.”
RET: “Okay, listen, look this way, monitors raise your hand. Okay, listen all teachers look to the board. You’re going to call on different teachers to read different parts of the story. . . Good teachers always ask good questions. What if someone is reading and they don’t understand a word? You’re going to give them synonyms.”
EH teacher: “Any questions before we get started?”

The EH teacher monitors the group closest to me and asks questions after the title is read. The general education teacher observes several groups. The EH teacher prods a second group and monitors the behavior of one student.

GET: OOOH, I like what you did. . . . What if someone is having difficulty clarifying? . . .

A student in the group nearest to me asks about the word customs then the word nationalities. I guide them to reread and to look for context clues. One students blurts out, “People from different nations.”

The EH teacher awards points. “I love the way everyone is working so nicely together,” she remarks. She then circulates groups awarding points and recording them onto her clipboard point chart. For the off task behavior of one student she remarks, “It’s okay to have a moment sweetheart, but you need to keep moving on.” Students in one group raise their hands. The EH teacher clarifies the wrap up with the regular education teacher. Students will take the passage home and have it signed by a parent.

GET: “Give yourself a hand for working well in groups.”

The students clap. “Wonderful,” she remarks. “Did everyone get a change to predict in the group?” she asks. She then moves back to the chalkboard to review concepts. “Make sure everyone is sharing in the group. Did everyone take turns reading different parts of the story? Did everyone ask teacher questions? Raise your hand if you fully didn’t understand a word in the story.”

Students in the group next to me put tape on their mouths.

GET: “Homework: Take the story home. You must read the story to an adult. Read it quietly to yourself and then an adult. Tomorrow when you some in, what am I going to do?”

All students: “Collect everyone’s story.”

EH teacher: “Then you will have a quiz.”

EH teacher: “You guys did a very nice job. Everyone got 15 points.”

Science was next. Students stayed in their groups for experiments.

Instructional monitoring and evaluation: All students remained on task when seated in groups and during whole class instruction. Each student in a group participated at some level. Both teachers circulated the class at all times assisting groups, adding to or making corrections as needed.

School: Residential | Subject: Reading
Date of Observation: February 18, 2004 | Grade: 3
Population: Specific Learning Disabilities | Total Number of Students: 20

Classroom Description: Third grade class housed in a portable classroom. Six computers along one wall. Charts displayed on white boards at front of the room: Word webs, Story Path graphic, cause and effect. Read 180 Scholastic audio books stacked in unpacked boxes on the floor in the back of the classroom. Neat, organized shelves, two cabinets, rules displayed, student work displayed, class pictures are framed and hanging on the wall. Student folders housed in make-shift plastic crate containers assembled as a book case. A side white erase board is used to display additional graphic organizers. There are two teacher's desks positioned at the back of the room. They are positioned opposite each other on opposite sides on each wall. The regular education teacher's desk is clean and organized. The lesson planning on top of her desk is open and easily accessible. The ESE teacher's desk is organized as well. There are several metal framed dividers which house remedial work and individual student's folders. Each teacher has several pictures of family members displayed atop their desks. The students' desks at the front of the room have been arranged in a horse shoe. Two lone desks have been positioned behind the heads of the students in the horseshoe configuration. A kidney shaped table is positioned at the opposite end of the room. There is a small white erase board to the right of the kidney shaped table with nine student chairs. A large Teddy Bear is seated in a small wooden chair next to student's desk in the horse shoe. Two air conditioners on high make it extra chilly that day.

Instructional Planning: One set of lesson plans visible. There are two groups of students seated when I arrive. Initially, twelve students are seated in the horse shoe configuration at the front of the room with the regular education teacher, and nine students are seated at the kidney shaped table in the back of the room. Students are then regrouped for whole class instruction. No visible interaction between teachers during classtime.

Instructional Management:

All students remain on task. Little prompting needed from teachers. When an assistant principal entered the room, the regular education teacher remarked, "Excuse me, cover your mouth," and all students put one hand over their mouths. Both teachers constantly circle their groups. The regular education teacher prompts students by saying, "Follow along; use your fingers." "I like the way X is sitting. Y is sitting so nice and tall." A timer is set to signal the small group to join the larger group. Students who arrive later in the instructional hour and are seated at individual desks are given one-to-one instruction and/ or assistance by the ESE teacher. The ESE teacher meets with one student to discuss a detention for no homework. Her groups automatically get up and join the larger group when the timer sounds.

Instructional Delivery: During the first half hour of the reading and language arts block all nine students in the horseshoe configuration work in what appears to be a first grade level phonics book. The ESE teacher rotates quietly around the table sounding out letters and words for individual students. The larger group is working on FCAT skills.
MS: "Remember, everything we are doing is preparing us for the FCAT. Remember guys; every time we do this we're going to review page one, Test Tips. Put your finger on the first one. Number two, read me that one. All fingers on that one. Be sure you know what they are asking.

Do they want to know a detail? An opinion? You have to know if they are talking to you about birds, are you going to answer about. . . We need to get started. I mean business now."

Student reads passage about author Marc Brown out loud.

MT: "How many have seen Arthur on TV or read books about Arthur?

The teacher shows a book on Arthur.

MT: Is Miss Julienne a man or a woman?"

All of the students track the reading with their finger. Some use highlighters.

MT: "We are going to use the strategy of putting an X on the ones we know do not make any sense at all. This is Enrique's strategy."

Student reads question. Teacher reads choices. Student reads question. Teacher clarifies, cites reading objective: chronological order.

MT: "Who can go back to the story and find . . . Everyone go back . . .
Student: "This is easy."

MT: "I'm counting from five to one; everyone needs to be ready." This is said to get students in order, ready to listen. While circling student's desks the general Ed teacher remarks, "I'm very proud of students in this room, everyone's using the strategies learned by Mrs. D and I."

As students continue to work, the general education teacher provides clarification on language such as "spur of the moment." She then instructs, "Highlight your answer in the story, and put a number four next to each." She adds, "Remember, sometimes you can find key words."

At the end of the first half hour, a timer sounds and the students in the small group seat themselves at a desk in the horseshoe configuration. ESE students are evenly dispersed among the large group students. Students join in without difficulty. FCAT review passages are being utilized as the reading for the day. At this point the ESE teacher leaves the room. The general education teacher is left with a large group. She rotates positioning herself behind various ESE students as she reads aloud, questions, guides, and instructs. All students are engaged and comfortable.

Instructional Monitoring and Evaluation: The general education teacher circulates the classroom at all times. All students are on task. Quiet and calm environment. Both teachers are soft spoken yet energetic—continually walking, circulating. The general education teacher occasionally pats a student on the back and says, "Yes, right." All students raise their hands to get the teacher's attention. The ESE teacher places her hand on students' backs, shoulders in a supportive fashion and assists behind specific students as students read. All students seated in groups except one student who is seated alone. He, too, follows along. Choral reading is utilized for paragraphs within a given passage.

Appendix J

Interview Transcript, Sample

Teacher Interview Record

School: Miami Beach Grade: 4 Regular Education Teacher

The interview was conducted in the teacher's classroom. Ms. W is a tall, conservatively dressed fourth grade regular education teacher of African-American descent. She is 27 years old, has a bachelor's degree in elementary education, and has been teaching fourth grade for four years. This is her first year co-teaching. Ms. W is vivacious and friendly. I immediately liked her. On the day that I met with her to set up our interview, she was so excited that she immediately yelled across the room to her partner, "Hey they want to interview us! We're one of the only four inclusion grades in Dade!" One of Ms W's most pleasant features, besides her energetic teaching style, is her voice. Her articulation is like that of a newscaster.

Instructions: It is important for me to understand what it is like to have an inclusionary classroom and what is it like to teach in an inclusionary classroom everyday. I have some questions about students in inclusionary classrooms that will help me to better understand your experience with them.

Collaborative Practices

How were the teachers selected for this model?

My understanding is that it was discussed between the principal, the assistant principals, and the people from what used to be called Bertha Abbess, um, it was decided over the summer that they wanted some teachers to be a part of the inclusion model. So, basically, I was selected.

Who decided which model of collaborative practices would be implemented?

They decided what kind of model would be implemented as well.

How are teachers' roles defined in an inclusive model of education?

We kind of found a middle ground. There are certain things, certain days, I may dominant it, I am teach a lesson and she may piggyback on that. She may translate in Spanish because the class is not just inclusion, you know you have, we're ESOL, we're inclusion, and we have retainees in the class.

[How many were retained?]

Off hand, seven to eight students.

Who does more in the collaborative partnership—the special educator or the general educator?

I think the both of us work equally as hard. [Interruption: Loud Speaker] G has a special way of dealing with things as they come up because she's coming from an ESE background and I'm

coming from a general Ed background. In some ways, she's more equipped in dealing with various situations that may come up, delicate issues, and things of that nature.

How would you describe your teaching style?

Ha, ha, ha, ha. Teaching style right now is a little bit eclectic, it's, you know, it's a variety of things going on. [Interruption: Loud Speaker]

What is your philosophy of teaching?

My philosophy of teaching is to the best of my ability, I believe in reaching each child and it's not easy because each child has his or her own personality and issues that they're dealing with you know, you know in their personal lives.

What's your philosophy of collaboration?

My philosophy is I'm a very easygoing person, I very much believe in Comer. You collaborate, you work along with the person, you cooperate with that person to the best of your ability. I believe that the ultimate goal is to reach the children, to get them to learn, you know, to be taken from one place to another in a positive manner.

Component 1: Instructional Match

Instructional Diagnosis

What must a student know in order to be successful in an inclusive classroom?

What they must know is, and it's something that we work on faithfully, every single day is they have to know that they need to know how to know their strengths and their weaknesses and know how to follow directions and how to realize that school is a place that you come to to know how to learn. Okay, you can have friends, socialize; you can do many different things. But the ultimate goal for you is to learn something each day that you did not learn before and take that experience with you and take it to the next level. Everyone knows that in elementary, everything that you ever learned you basically learned in elementary. You just branch out get more detailed as you go along. The foundation of education is grounded in elementary school.

Tell me how you determine students' instructional needs.

On a case-by-case basis, well we know some children um their instructional needs vary. Some children are able; we try to allow them to work in groups with one another. Sometimes we have large group oral presentations because our kids are quite loquacious. They love to socialize, they love to talk, even know when they do that at times, they have conflicts, problems, and things of that nature, but in the same taken, we try to reach them in many different ways. Sometimes we believe it's hands on, sometimes we have oral presentations where they have to go up and talk to the class, sometimes they have artistic types of assignments where they get to draw and they get to work either independently or they get to work with a partner or work in a small group or large group. You know, a variety of things.

How do you determine students' skill levels?

Well, skill levels, we try to partner children in a group where some kids may not be as strong academically we try to pair them up with students that may be able to help them along. So, they can assist them when they're working with assignments and things. So we try not to put, you know, I'm trying to be very delicate in my words, you don't want to say the low achievers, you know, I want to be careful with my words.

[Okay, how about children with learning difficulties?]

Instructional Prescription

How does instructional planning differ in a collaborative partnership?

I notice for the most part, we usually find a common ground. It really doesn't differ that much in terms of we're able to work wonderfully together and when we are able to find the moments to plan when we don't have meetings, you know, when we're not this and we're not doing that, we sit down and we, I notice that G tends to um when it comes to terms in planning she's pretty much to the mind set of what I am. We try to find engaging assignments and activities for the kids to work with one another in groups—especially for science and math. I don't think we differ that much. We're more similar than we are different. In terms of planning, we're very easy going. Some weeks she let's me plan the lesson book. We're pretty much given certain resources that we have to use so there isn't a lot of variety in terms of math, science. There are teaching methods we have to stick to.

What teaching methods are most effective to use in an inclusionary classroom?

I notice that to really engage this group, many of the children that are coming from an ESE background, coming from a very limited English base environment, being new to the country, with so many different issues going on and then there are the students that of course are repeating the grade level, so what we try to do is. . . Huh! I got lost in it! What was it?

[What methods are most effective?]

What we try to do is we try to allow them to play games, we try to engage them with music, um, um, with various activities that we allow them to do. Now we're having them to work on science experiments and things of that nature.

[Yes. I saw that.]

How is instructional planning affected by your school's reading program?

[Interruption; Question repeated] I think it's affected in a various positive way in terms of I love the fact that we have direct instruction in terms of everything is scripted and the program is effective. I believe that it is working because for the most part you have children that are in a given grade level but in most cases, they're one grade level above reading or even two in some

cases. So, I think it has effected it in a very positive manner. It's a good program. I love direct instruction. (She laughs.)

[I laugh too, and tell her, I used to until they changed me.]

And, tell me how you plan instruction for students with learning difficulties and/or emotional difficulties.

Children with learning disabilities and/ or emotional difficulties we tend to try to especially with the social studies, we work on quite a bit of conflict resolution and problem solving type of techniques and skills like real life type of problem solving. Even with the math, we try to bring real world type of situations type of thing. So that's how we plan and instruct with the children because whether their coming from a very tumultuous household where there are a lot of issues going on and things of that nature, I notice that the same thing that is effective with our ESOL students, ESE students, and the ones that are repeating the grade level, it's across the board because when you do these different things it tends to cater to all the children and it meets them on wherever they are. You know, it seeks them out where ever they are to be engaged and that's our ultimate goal. You try to educate them, yes, but if you can't capture their attention then that's it.

[Exactly.]

Do students' learning characteristics affect your choice of tasks or materials?

I try to keep it into mind that, hum, learning characteristics that affect your choice of materials. Can you tell me what you mean by learning characteristics?

[Their learning styles.]

Yes, that's why we try to engage them with music, visuals, sometimes they have artistic type of assignments, um, games, you know, oral assignments where we try to utilize their skills, we know, we pretty much at this point of the year, we know who they are, we know a lot of their strengths and weaknesses, and try to use them as a positive outlet.

Is there anything special or different you have to do when teaching in an inclusionary classroom?

I would say there isn't anything so much different, the only thing I like the idea of having another person in the room in terms of working with G because she's able to serve as a translator for children so in a sense we have a bilingual classroom which meets the needs of so many children since I would say 90 percent of the students in the class are coming from Hispanic background. So, I would say in that sense that um that's something that we have used that she's a tremendous asset to the classroom in terms of some days she may feel like teaching and some days I may feel like teaching and vice versa and you know I may let her dominate the lesson and I may circulate around and make sure that they're on task and help them out and assist them and things of that nature and vice versa.

[Yes. It was important for me to see. I observed that.]

Do you have a specified scope and sequence?

What do you mean?

[An overview and schedule of your goals and objectives for the entire year in specific subject areas.]

I think we have that with SRA.

Component 2: Instructional Expectations

What are your expectations for task completion? Accuracy? Neatness?

Well, in terms of, you say, did you say neatness?

[She couldn't stop laughing at this point.]

Let's not even talk about that! She snorted. Scratch that one off. Well it's not easy because you know a lot of people tend to have a problem with organizational skills and try to keep clutter to a minimum and you know, it's not easy because we started off the year in another room, We were in a smaller room and then we moved into a bigger room in the midst of a school year. And ever since then it seems like it's been very difficult to get organized, to, everyone keep your stuff, you know, this is your area, try to be well defined and organized and you know, so, it has been a challenge I would say for students and for teachers alike. It's not easy.

[No wonder you're laughing.]

I'm like, are you kidding me, we still have things in boxes, you know, that we haven't even touched yet that we need to, oh where is this and where is that?

[She laughs uncontrollably, again. And I remark. Okay, is that what's happening here.]

Exactly, since we moved, I'm telling you.

Alright then, how do you communicate your expectations to your students?

Well, believe it or not, we, repetition is the main thing. We talk a lot, we preach it day in and day out, and we also, I can't say that we really, We model things like on certain levels, what we say to the children is, okay there is a unique situation, we have two teachers, you see that Mrs. D and I are working wonderfully with one another, you know, we work a lot of the Comer into it. We say we collaborate with one another, we're very no fault, we don't blame one another, we try to get along we cooperate and try to get things done and you know, try to see what is the positive outcome out of different situations. So that's how we try you know, we tell them, we show them, we, hopefully by example.
[You keep referring to the Comer Model. Who was Comer?]

He was a psychologist. His philosophy was this was a Comer school which means a no fault environment. Some of the main focuses of Comer is collaboration, cooperation, um,um, you don't get into the name-calling and the blaming game and whatever. To the best of your ability, you try to um what also branches off of Comer is working to a schoolwide thing which branches out into the community and then you take it into your home life and you know, it's just a philosophy of "do unto to others" basically, whatever. You know, everyone wants to be treated with respect and dignity and you want to be heard and you don't want them to just accuse you and find the negative things about you. You know, kind of seeking those things out, you want them to find the positive and encouraging things in life.

[Thanks.]

Exactly.

[Thank you for reviewing it for me.]

What do you want a student to do if he/she finishes early, is confused, and/or needs to ask for help? How do you communicate this to students?

Well, when the students are finished early, one of the um projects well I guess this is um a nation wide thing, I'm sure you know about Accelerated Reader (AR) so in most cases when they finish and when assignments are finished early, they're encouraged to read their accelerated reader books and then they have to go on those computers and take the quizzes because there's also a point system for that also. The students that read more books get prizes from our media specialist at the school and everything else. We have taught them how to start working on journal writing also. We give them various topics on given days and then they get to write.

What are the usual things you do when a student does not do well on an assignment?

Okay in most cases that's where it goes back to where we seat the children we usually have them working collaboratively with different students. They work in um we try to have them with the higher achievers, the ones that are having learning difficulties, we try to pair them up and if we see that that is not working then we since there are two of us we always say to the children if you're working and you're having a problem, then raise your hand, and then we would go to that student and help him, not do the work for them, but really try to work them through the thought process step by step to see if they could find the answer to whatever they're working on.

What are your expectations for your collaborative partner?

Oh I like that. Some of our main things, we like to you know, sit down and figure out where we're going to go next with the children in terms of instructional activities and things of that nature so that through some of our expectations are we like to sit down and make sure that we have a plan. At least have what we've planned for the week, have it mapped out, either that or I'll try to make our copies and have that lined up for the kids so that they can work on their activities and assignments. We just expect to get along with another. You know, we're both, easy going and we expect to just um we just take things as it come. Just like in life. We don't, a

lot of things are unexpected and we find out a lot of things you know like spur of the moment so we do them and take things as they come along as they do.

Component 3: Classroom Management

What rules do you have for appropriate behavior in your classroom and how and when do your communicate the rules?

We talk a lot about rules. I know we talk about rules and our expectations of the children on a daily basis.

[And, you have a point system.]

Exactly, we have that point thing and we talk about following directions, um, um, the pros and cons of not following directions, consequences, the rewards, you know we go through that. It's a *daily* thing. It's a daily thing.

[You said you had a point store, when I did my first observation.]

We do it, what we do is um on the pay, our children goes to Spanish on every other Friday, so the Friday that the children don't go to Spanish which is the day that we get paid, we have an A week and a B week, so the A week that they don't do to Spanish on a Friday, that's when we have Point Store. We buy various little, as a matter of fact, (She lifts up a large rectangular 12 x 24 inch box off the table to the left of where we are sitting and point as she talks) We give them candy, little toys, you know,

[Oh, wow, like this one, I remark as a hold a small match box car in my hand.]

We give them toys, cars, candy, they like candy, whatever we can get our hands on. We buy various items.

Who do you feel manages the behavior mostly in the classroom?

[Pause. And, then I ask, who manages the points?]

For the most part, um, I would have to say that Mrs. D handles the points for the most part because seeing how she's the one who introduced it to me because I never used it prior to her coming into the classroom with me. So, she's the one who brought this from her background being an ESE teacher. She's the one who introduced it to the class, our inclusion class, and to me. Even as a general ed teacher, it is very effective.

Productive Time Use

How much time is devoted to lesson planning between you and your partner?

We try to devote as much time as possible, lately things have been hectic. We've been going to meeting, after meeting, after meeting. Quite often we use our planning time to meet with parents.

[Right now, I'm taking your planning time.]

I don't mind. When they're working on science, social studies, or math, for the most part, it's easy if we get one day, we can plan out for the whole week. We don't need to plan everyday where were working on lesson plans. If we have one day a week were we have an hour, we can knock it out for a week or two.

No. The only thing we have different, is I make sure that and G also makes sure that she has the strategies that she's using for ESE and the strategies that she's using for ESOL. That's the only thing that we make sure, that's requested by law, we always make sure that we have other strategies that we're using for our ESOL and ESE students.

Component 4: Instructional Presentation

See Observational Record under Instructional Delivery.

Component 5: Cognitive Emphasis

What learning strategies have you taught students with learning difficulties and/ or emotional programs to use in completion of tasks?

Okay specific strategies that we have taught the students? Well, seeing how children, you know, this is a generation that they are very much into pop culture, so one strategy that I know we use, we're very big on hands on, the kids love to use manipulatives, so we, quite often they will use manipulatives for math and science. In terms of social studies and science, uh, since we moved in this room, now we don't have a television or VCR. When we were in our old room, we would make sure that they watched science videos, we would play the cassette, but now that we're back into the science and social studies text book, we deviated a little bit from it because we wanted to do some other things, and we had some other special projects to work on for science and social studies, because we're also a technology class, also. We're Family Tech, so . . .

[What's Family Tech?]

Family Tech is a program which essentially means that they want to get more involved with using technology in the classroom and even at home. So it's a program that's been going on at school for several years now. This is my third year working along with Family Tech which means that the children, the parent and the student must go to a family meeting here at the school and when they attend that meeting, they actually get a computer. It's not a new computer, but you know an old, but nonetheless they get a computer to take home. And, the purpose of that is so when they have homework they can use Internet. They have Internet to use at home and things of that nature. What it is is that students have to work on the computers, we have to keep folders, the purpose of which is to put work in it, and they have to go to the media center, to work on lap top computers as a whole class. Exactly.

Component 6: Motivational Strategies

How do you motivate students of varying exceptionalities in your class and which methods have been the most effective?

Well, I've noticed that is goes right back to, we've tried to have a lot of heartfelt talks to the children. We don't lie to them. We don't try to dress it up. Very real with the children. So, we try talking to them and I hope that we have done it by example even by the two of us working together. We also role play. We actually show them how to work out different situations, how to think, how to problem solve. We try to work our things many different ends.

[Okay. Okay.]

Component 7: Relevant Practice

Practice Opportunity

How are practice and review of content material provided?

Okay, practice and review comes in the form of like okay, when we have a, when we teach the children a certain skill and let's say they don't master a certain skill, then what we would do is the following day, if possible, we would try to reteach. We would go over the skills again as we would bring different components in to it. Okay, if we were more verbal and that's why maybe some of them got lost, you know between, coming from an ESE background and then with the language situation, then things of that nature, then we try to make sure that we use different kinds of um modalities. Whether, okay, let's see if we can be more visual, instead of talking so much, Let's see if we can give them something to work with, hands on. Or maybe they can listen to something. Maybe we could work music into it. We try to do things of that nature.

How much of a student's day is spent in seatwork activities?

I would say the majority of the day. Um, it's sad but true in the same token we could, much of the school life is focused on FCAT. So it's all about children focusing on reading, reading, writing, arithmetic, the basics. It's sad but true. We try to make it a little bit more engaging for them, a little more entertaining by bringing in music, visuals, and having them to role play. Or sometimes even have games or work on science experiments, things of that nature, but it still goes right back to you know, they have to produce, they have to be able to read and write.

[Yes. That is the bottom line.]

Exactly and you know it's like we're in a good place now that FCAT's over you can you know try, work on different things that you couldn't work on before. You know now it's not so much focus on you know FCAT writing, you know expository and narrative and things of that nature, now we can branch out. And now we're getting into more creative things with the children. They're going to be learning cursive writing, getting into creative writing skills, writing poems, things of that nature. So we're getting to them in many different ways.

Instructional Material

What types of supplemental materials are available or used?

When you say supplement, you mean in terms of teacher resources?

[Okay, at my school, which no longer uses SRA materials, a supplement might be an SRA Corrective Reading kit for those students that are having difficulties, or at a school that only uses a basal, a supplemental material might be a novel unit. With me, I only use the novel units.]

Going back to the computer, there's FCAT reading on the computer where they actually get to click on where it says FCAT reading and they go to there and are able to read passages and type in short and long answer responses and answer multiple choice questions.

What kinds of instructional materials have been used with accelerated students? Students with specific learning disabilities? Students with varying exceptionalities?

The beauty about going back to the direct instruction the kids are grouped according to ability. So, in terms of reading, children are out of the room, if they're on the higher level then they're with a different teacher. So, they're grouped according to ability. It's not the situation where you have, It's reading time! And you have different children on different levels. So, they are grouped according to their given ability.

Component 8: Informed Feedback

See Observational Record under Instructional Delivery

Component 9: Academic Engaged Time

If you notice that a student is off task, how do you redirect their attention?

We go back to positive reinforcement. I like the way so and so is doing his or her work or doing the right thing. Let me give so and so 10 points or 20 points and you get back to that. I try not to, even in school, if possible, single out a child or embarrass the child by saying, so and so, Sit up or why aren't you doing your work because you don't want to really embarrass that child, or shame, you know.

Component 10: Adaptive Instruction

If a student does not understand the assignment, despite several attempts to re-explain the task, what do you do?

Well, I am comfortable with the idea if something has been presented to the child in let's say two or three different ways, and the child is not comprehending what's going on then I'm comfortable with the idea of tabling it, putting it aside, because there are certain things in life for whatever the given reason that the child may not be able to master certain skills. And I'm comfortable that the child if in that given period of time and you know how the curriculum is set

up, and we have to touch on bench marks, if they don't get it at a given time then chances are that they'll get it. [Interruption] So many interruptions.

What provisions have you made in the physical arrangement of the classroom to accommodate learners with varying exceptionalities?

Ahhh, yes what I notice is that with some of these children proximity control really doesn't work so in terms of physical arrangement, in some cases if some children have to be moved from the other ones they're that disruptive and they're seeking attention, negative attention, things to that nature then in some cases we just have to move certain students for their own, I'm trying to look for the word, to benefit them. They can't handle working with others and they're going to be disruptive. It's better for them to be by themselves so they can concentrate on what they have to do.

Component 11: Progress Evaluation

Monitoring Student Progress

What kinds of records do you use to monitor students' progress in an inclusionary classroom?

Grade book, AYP's, IEP's.

Follow-up Planning

What do you plan to teach next?

In general? The sky's the limit. Now that this FCAT for this year, as I said earlier, we want to get more into creative things with the children. The students are doing something called, we've already taught them reflective essay writing, they love because you give them topics and they get to write whatever they think, whatever they want and they get to think about how they feel on a given topic. It starts off, surely everybody knows what chocolate is and they get to say, Chocolate is blah, blah, blah, whatever, they get to insert whatever they like. In s sense it's like journal writing. It's an outlet for them to be creative. They can say whatever they think or feel.

Anythnng Else?

[What is the most rewarding aspect of working as a collaborative team?]

It lightens the work load in a certain sense because we have two heads are better than one. Because we have as you see if I'm busy or I'm working on something then let's say in a parent conference or I have something going on then I have, she can, get other things done on another end. She can make copies, she can handle this, she can handle that. It's a wonderful partnership because it's an asset to the classroom to have two teachers instead of one.

[What is the most frustrating aspect?]

Believe it or not it may seem unbelievable as it may sound, no frustration. Not me. We connected from day one. It's like a marriage.

Is there anything else that you would like to share with me?

That's a loaded question. Inclusion is not for everyone. You have to, and I kid you not, between our students that are coming from ESE and are being mainstreamed into the quote unquote general ed classroom, and the ESOL students, and the students who are frustrated because they are repeating the grade level, which is a unique situation for us because we have three and four different things going on here, and then you have children that are emotionally um um disturbed and so I kid you not practically on a daily basis, I don't think that there's even one day that we can get by without having some situation involving a student from student to student, a student in this class or a student in another class or it's just that they have a lot of social problems that I notice. I guess it's because they have issues that are going on at home, they're coming from abusive situations, they're coming from broken home situations, and things of that nature, and their only outlet is to be who they are. They can only demonstrate what they have seen and what they learned from their home environment. It's sad but it's true. So, um, everyday, G and I joke that everyday we're like investigators. Everyday were recording down something, writing reports all the time. We're writing accident reports and we're writing referrals and we're calling parents constantly, and we're working on anecdotals for some children that we believe should be a part of ESE now.

[You still have a pull-out program, now]

Actually, what it is is that they're trying to do away with ESE on the whole. We're looking at in the near future, it may be sooner than we think, even the ones that you know, profoundly, I'm at a loss for some of the words, PMH. . . [Interruption: Concluded Interview.]