The Effects of Inclusion of Students with Learning Disabilities on Urban Fourth-Grade General Education Students

Brenda E. Cox
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THE EFFECTS OF INCLUSION OF STUDENTS WITH LEARNING DISABILITIES ON URBAN FOURTH GRADE GENERAL EDUCATION STUDENTS

by

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B.A. June 1975, Old Dominion University
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A Dissertation Submitted to the Faculty of Old Dominion University in Partial Fulfillment of the Requirements for the Degree of DOCTOR OF PHILOSOPHY URBAN SERVICES

OLD DOMINION UNIVERSITY
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This study examined the impact of fully included students with learning disabilities on the academic achievement and classroom behavior of urban elementary fourth grade students. To achieve these purposes, data were collected by using the Iowa Tests of Basic Skills Multilevel Battery (ITBS) of general education students and students with at-risk profiles, Kaufman Tests of Educational Achievement (KTEA) of students with disabilities, completed Individualized Education Program (IEP) objectives of students with disabilities, report card grades of all students, and referrals to principal for inappropriate behavior of all students. Staff and parent surveys and student interviews were another source of data. Effect size, t-Test, percentages, and Wilcoxon signed-rank test were the data analysis techniques.

The independent variables were inclusion and no inclusion. Academic achievement and classroom behavior of individual students, as measured by the ITBS, KTEA, report card grades, completion of IEP objectives, referrals to principal, staff and parent surveys, and student interviews, were the dependent variables. The research design was quasi-experimental using a pretest-post test control group, because randomization was not possible. Except the interviews and surveys, data were collected twice, as a pretreatment measure and post-treatment measure of the outcome variables. The staff and parent
surveys and student interviews were completed only at the end of the study.

Participants included 68 general education students, 20 students with at-risk profiles, 12 students with disabilities, four general education teachers, one special education teacher and the special education teacher assistant. Fifty-two staff members, thirty-one parents of general education students, and 12 parents of students with disabilities completed a questionnaire that focused on the aspects of the program and student outcomes.

This study confirms much of the literature that inclusion should be one of many options for service delivery and contributes to the validation that general education students and students with at-risk profiles do better academically and behaviorally with students with disabilities included full time in their classroom. The research data revealed that the qualitative results support the quantitative findings. The neutral and positive feelings that the parents, staff, and students were having are supported by positive gains of the students. Implications, along with future avenues of research, are presented.
This dissertation is dedicated to

My Sister

Mary Louise Elliott, who has given me purpose.

My Boys

Will and Kevin, who have given me much joy and happiness.

My Parents

Mr. and Mrs. Charles and Mary Elliott, who have always been there for me.

My Husband

Dr. Beverly B. Cox, III, who has been so patient and understanding throughout this ordeal.
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CHAPTER I

INTRODUCTION

The Individuals with Disabilities Education Act of 1997* has had a tremendous impact on the delivery of special education services in the public school setting. Before this landmark legislation, most students with disabilities either were excluded entirely from public schools or, if they were educated in the public school system, were taught in segregated classrooms and facilities separate from general education students (Ainscow, 1991). In 1990, approximately 1,722,000 students with disabilities were in general education classes, while 2,919,000 were in separate special education programs (Snyder, 1993). The Individuals with Disabilities Education Act Amendments of 1997 (IDEA) seeks to include students with disabilities in general education, but does not mandate absolute inclusion and, in fact, sets out alternative placement options.

IDEA provides for a free appropriate public education (FAPE) for all children with disabilities in the least restrictive environment (LRE). The FAPE and the LRE mandates reveal the potential incompatibility between placement-integration and service-program factors (Siegel, 1994). Conflict has been created by this dual purpose of mandating comprehensive programs to meet individual needs while maximizing inclusive opportunities in general education (Weiner & Hume, 1987; Vaughn, Bos, & Schumm, 1997). IDEA requires that students with disabilities be mainstreamed or included, to the maximum extent possible, in the schools they would attend if not disabled. This law also

IDEA is often referred to as EAHCA, EHA, or Public Law Number, 94-142. Although it is acceptable to use any of these designations, the use of IDEA is incorporated throughout this text primarily because it is the significant portion of the EHA. Public Law 105-17, Amendments to the IDEA were enacted on June 4, 1997. All of the new requirements that affect local policy and procedures are in effect.
requires a continuum of placement alternatives, including separate classes, schools, institutions, and hospitals. Inclusion and mainstreaming are terms that refer to the practice of educating students with disabilities in general education classrooms (Gable, Korinek, & Laycock, 1993; Meyen, 1990). Other terms that refer to the practice of integrating students with disabilities will be defined later in this chapter.

As stated in the amended IDEA, the policy of student placement following the LRE principle is a significant reason for the exploration of the effects of inclusion on students without disabilities in this study. Academic skills and classroom behavior of general education students, students with at-risk profiles, and students with disabilities affected by participation in an inclusive classroom are investigated.

Rationale for the study lay in the need for research on the effects of educating students with disabilities in the general education classroom on urban elementary general education students. Chapter I will explore the significance of this study by showing the limited available research, problems associated with inconsistency in the definitions of including students with disabilities in general education, and varying opinions of educators and parents on the effects of and need for educating students with disabilities in general education classrooms. Significance and limitations of the study are examined. The conceptual framework of the study is presented, and the statement of the problem.

Background of the Study

Some authorities have questioned the appropriateness of segregating students with disabilities from their peers without disabilities. For example, Dunn (1968) raised the question of the negative impact that self-contained special education classrooms may have on students with mild disabilities. Dunn was concerned about the impact of self-contained
classrooms on the educational progress and civil rights of students with mild disabilities. Cannon, Idol, and West (1992) indicated that students with mild disabilities, and all other students educated in general education, benefit from similar, effective instructional practices. Deno, Maruyama, Espin, and Cohen (1990) and Goodlad and Lovitt (1993) suggested that students with disabilities do better both “behaviorally and academically” in integrated programs. According to Goor and Schwenn (1993), the interaction between students with and without disabilities enhances academic achievement for students with disabilities. Wall and Siegel (1994) questioned the appropriateness of segregating students with disabilities who can succeed academically in general education classrooms. However, according to Wisniewski and Alper (1994) the decision to integrate a student should not be based on capability to perform in the general education classroom. Instead, these authors stated that students with moderate to severe disabilities should not be segregated from their age peers without disabilities. Students with severe disabilities can acquire skills that allow them to benefit from a variety of normalized environments.

As stated in IDEA, the policy of placement following the LRE principle has been a significant reason for questioning the appropriateness of separate programming for students with disabilities. Proponents of student placement in the LRE emphasize the academic and behavioral advantages for educating students with disabilities in the general education environment (Esposito & Koorland, 1989; Green & Stoneman, 1989; Strain, 1989). Cook and Friend (1991) concluded that segregation was not necessary if integration in the general education classroom for students with disabilities included collaboration between the general and special education teachers. Bauwens, Hourcade, and Friend (1995) proposed that with a supportive learning environment separate
programming was not required.

Many terms refer to the evolutionary idea of educating students with disabilities in the general education setting. These terms include regular education initiative, mainstreaming, reintegration, and, more recently, inclusion. The "Regular Education Initiative" was first popularized by Will (1986), who served during the 1980s as Assistant U.S. Secretary of Education. She was in charge of programs of special education and rehabilitation. Her idea was to press for more accommodation of students with disabilities in general education classes and schools. Another movement of Regular Education Initiative (REI) urged a shared commitment by special and general education programs and staff, a partnership that cooperatively assessed the education needs of students with disabilities and developed effective education strategies to meet these needs. In addition, this REI movement affirmed the right of students with disabilities to participate fully in the school family alongside the students without disabilities who attended the school (Vanderhoof, York, & Forrest, 1989).

Inclusion, like mainstreaming, reintegration, and REI, has no universally accepted definition (Meyen, 1990). Mainstreaming and reintegration are educational terms that refer to the practice of returning students with disabilities to general education classes (Meyen, 1990). The terms imply that the student with disabilities must earn his or her way into an integrated setting by first functioning successfully in a segregated setting (National Association Secondary School Principals [NASSP], 1993).

Inclusion is the term given to the philosophy of educating students with disabilities in the general education environment. Unlike traditional "pull-out" programs that rely on segregated placements, inclusion is both a philosophical and programmatic orientation.
toward the student’s right to be educated in the general education classroom. The aim of inclusion is to integrate students with disabilities, with the support and resources they may need, into classrooms with peers without disabilities (Friend & Cook, 1993). In fully inclusive schools, special education services usually are offered within general education classrooms, in neighborhood schools, no matter the student's categorical label or extent of disability (NASSP, 1993).

Mounting sentiment in many quarters to include students with disabilities full-time in general education classrooms stems from a variety of sources. One source is the growing number of authorities voicing concern about the effectiveness of the traditional model of separate special education services. Critics assert that these separate special education service delivery models have failed to meet the educational and behavioral needs of all students with disabilities (Schnorr, 1990; Schulte, Osborne. & McKinney, 1990). Gable (1994) and Biklen and Zollers (1986) questioned the efficacy of pull-out programs.

A second group of supporters of inclusion hold that separate education for students with disabilities is not equal education. Leinhardt and Pallay (1982) argue that the separate delivery of services segregate students from their peers, stigmatizes students with disabilities, and provides programs not equal in opportunity to general education programs. These individuals state that it is the right of the student with a disability to be included fully in the general education program. IDEA states that public schools are obligated to attempt a general education placement with appropriate support and related services before a segregated setting becomes the educational placement of the student with a disability (Heumann & Hehir, 1993; Huefner, 1994; Rothstein, 1990; Weiner & Hume, 1987).
The Association for Retarded Citizens of the United States in its "Report Card to the Nation on Inclusion in Education of Students with Mental Retardation" found a compelling point of reference for placing students with disabilities in general education setting. The report quotes Brown v. Board of Education of Topeka (1954) that "[s]egregation is the way in which society tells a group of human beings that they are inferior to other groups of human beings in that society" (Davis, 1992, p. 4). The Brown (1954) decision recognizes that educating any child separately, even if done so in "equal" facilities, is inherently unequal because of the stigma attached to being educated separately and because of the deprivation of interaction with children of other backgrounds (Rothstein, 1990).

1. What are the academic benefits of placement full-time in the general education classroom for the student with disabilities?

2. What are the nonacademic benefits of placement full-time in the general education classroom for the student with disabilities?

3. What are the effects the student would have on the receiving general education teacher and students?

4. What is the cost of support and related services necessary to have the student in the general education classroom (Huefner, 1994, p. 42)?

A third group of supporters of inclusion has been educators concerned for the student at-risk population. Students with at-risk profiles experience significant academic difficulty, but do not qualify for special education services. With the number of students at-risk increasing, some authorities believe that these at-risk individuals are creating a hardship on general education teachers who are trying to meet the educational needs of all students (Cooper & Speece, 1990; Slavin, 1996). Lombardi, Odell, and Novotny (1990) advocate that special education services should be made available for students at-risk through inclusive schools. In an inclusive school, the special education teacher would be available for providing behavioral and academic assistance to students with at-risk profiles (Hardin & McNelis, 1996).

Research conducted on the efficiency of service delivery options for students with disabilities represents a fourth source of support for inclusion. Several recent studies have suggested that certain students with disabilities can make academic and behavioral progress when they participate in all activities of the total school environment. These studies support the idea of educating certain students with disabilities with age appropriate

According to Osborne and DiMattia (1994), inclusion has unified efforts to broaden educational opportunities for students with disabilities under two different federal laws. First, the language of IDEA supports the philosophy of educating students with disabilities in the general education environment. This legislation requires that students with disabilities be educated in the LRE. Whatever supplementary aids and services necessary will be used for the students to benefit from a setting that least limits or restricts their opportunities to be near and interact with peers without disabilities. While IDEA seeks to include students with disabilities in general education, it does not mandate absolute inclusion and, in fact, sets out a continuum of service delivery options. Second, the integration language of Section 504 of the Rehabilitation Act ensures equality of educational opportunities and equal protection under the law for students with disabilities. The mandates of these two federal laws advocate inclusive environments for students with disabilities.

Some authorities have expressed concern about the effect that inclusive environments will have on the general education of children of students without disabilities. Cosden, Pearl, and Bryan (1985) and Sharpe, York, and Knight (1994) have examined the impact of placement in an inclusive classroom on academic performance of students without disabilities. The findings shown that the benefits claimed for cooperative goal structures may not always be imminent, but will vary as a function of student and
partner characteristics (Cosden et al., 1985). Furthermore, Sharpe et al. (1994) found no statistically significant differences in the academic or behavioral performance of students who were members of classes that included students with disabilities and students who were members of classes that did not have students with disabilities included.

Through interviews and observations, Biklen, Corrigan, and Quick (1989) and Evans et al. (1992) have described the social relationships between students with disabilities and their peers without disabilities who have participated in integrated elementary classrooms. Their results show that the ability of students without disabilities to understand and care for others was enhanced by involvement with students with disabilities. In a related study by Peck, Donaldson, and Pezzoli (1990), nondisabled adolescents perceived that they benefitted from relationships with peers with disabilities. The areas the authors viewed as positively affected were: improved self-concept, social-cognitive growth, reduced fear of human differences, increased tolerance of other people, development of principles of personal conduct, and enjoyment of relaxed and accepting friendships. Staub and Peck (1995) also investigated how students with disabilities change behaviorally while attending an inclusive classroom. Their findings were supportive of Peck et al. (1990), students with disabilities made growth in social cognition and had improved self-concept.

Inclusion has sparked widespread, often controversial debate. The field is divided with some authorities voicing strong support (Fuchs & Fuchs, 1994) and others expressing opposition (Gable, Hendrickson, & Rutherford, 1991). Various authorities have voiced concern over inclusion as the only available service delivery option (e.g., Gable, 1994).
The issue of full inclusion versus a range of placement options was a topic of debate at the Council for Exceptional Children (CEC) 1993 Annual Convention, the National Joint Committee on Learning Disabilities (NJCLD, 1991), and the 1993 Conference of the Learning Disabilities Association of America (LDA). Support was not found for full inclusion or any policies that mandate the same placement, instruction, or treatment for all students with learning disabilities. These groups have underscored the fact that a continuum of services must be available to all students. The groups also expressed that students with disabilities should be served whenever possible in general education classrooms in inclusive neighborhood schools.

Albert Shanker, President of the American Federation of Teachers, has expressed strong opposition to full inclusion. He stated that placement of students with disabilities in general education classes, without regard to the nature or the severity of the disability of the student, would be detrimental to the general education student. According to Shanker, the Federation of Teachers has asserted that the impact of the special education student on the general education teacher and students must be a consideration in the placement practice of students with disabilities (Shanker, 1994).

The provisions of IDEA as amended in 1997 improve the educational opportunities for children with disabilities by aligning special education with the general education curriculum (LRP, 1997). The policy statements in the beginning of the statute underscore the desire Congress has that children with disabilities are not to be segregated from aspects of a normal life (IDEA, 1997).

IDEA 1997 states that students with disabilities must be educated with children who are not disabled to the maximum extent appropriate. Special classes, separate
schooling, or other removal of a child with a disability from the general educational environment occurs only when the nature or severity of the disability is such that education in general education classes with the use of supplementary aids and services cannot be achieved satisfactorily (IDEA, 1997).

In addition to the debate among authorities over inclusion, it is important to acknowledge the mixed reviews that inclusion has received from parents of students with disabilities (Fischer, 1993; Ho, 1994; Mann, 1994). Parents have voiced concern after attempts to start inclusive classrooms have run into difficulty resulting from poor application, lack of communication (Kauffinan, 1990), and insufficient support and related services (Billingsley, 1993). Like some educators, some parents fear that inclusive schooling is an attempt to decrease the cost of funding special education and to ignore the rights of students with disabilities (Fischer, 1993).

While the debate over the soundness of including students with disabilities with students without disabilities continues, the number of students with disabilities included in general education is growing. Cosden et al. (1985), Biklen et al. (1989), Peck et al. (1990), Sharpe et al. (1994), Evans et al. (1992) represent relatively little research conducted concerning the academic achievement and classroom behavior of the nondisabled students who have students with disabilities included full-time in their general education classroom.

Even with limited research and mixed reviews by parents and educators, inclusion must be considered as a service delivery option for every student with a disability (Ainscow, 1991). In the statute of IDEA, Congress stated that a disability is a natural part of the human experience and does not diminish the right of the individual to
participate in or contribute to society (IDEA, 1997).

Concern has been raised over the effects of inclusion of students with disabilities on students without disabilities. Unfortunately, scant research has been conducted on the behavioral benefits for nondisabled students who have the opportunity to interact with students with disabilities (Cosden et al., 1985; Giangreco, Edelman, Cloninger, & Dennis, 1993). In addition, little research is available on the effects of inclusion on the academic achievement of nondisabled students. Few available studies suggest that the benefits claimed for cooperative goal structures may not always be reflected in inclusive settings (Cosden et al., 1985; Sharpe et al., 1994). Biklen et al. (1989) found students without disabilities to have an enhanced understanding and caring about other students after having students with disabilities included in their general education classroom. Peck et al. (1990) found nondisabled adolescents perceived that they benefitted from relationships with peers with disabilities. Murray-Seegert (1989) found that inclusive settings are effective about conveying information, encouraging acceptance of, and increasing interactions between students with disabilities and students without disabilities. The study was not, however, successful at changing the social position of students with disabilities.

Significance of the Study

An exploration of the effects of inclusion on students without disabilities who have students with disabilities included full-time in their general education classroom was undertaken to provide insight into the academic and behavior impact on the general education student. As stated earlier, the effects of inclusion on general education students are virtually unexplored. Results of this study will contribute to the validation of the hypothesis: When students without disabilities have students with disabilities included
full-time in their general education classroom their academic achievement and appropriate classroom behavior will be increased significantly.

Accordingly, the efficacy of an inclusion classroom is of great interest to parents, teachers, and school administrators. Determining the effects of inclusion of students with learning disabilities on urban fourth grade general education students will provide further understanding of its impact on public education. The number of students with disabilities and students without disabilities being educated in an inclusion classroom is increasing (Snyder, 1993).

Knowledge of the effects of inclusion will aid urban school divisions in planning staff development and program development. Genuine revision of segregated classrooms requires a commitment to comprehensive education and to a rethinking of general education. Such a commitment must enlist teachers, parents, and students in the transformation of schools into inclusive settings. This study documents an attempt to include students with mild and moderate disabilities in general education at the elementary level and, therefore, can help urban local education agencies in the development, assessment, and implementation of inclusive classrooms.

Effects of inclusion during its first year of implementation, as documented by student test scores, report cards, completion of individualized education program (IEP) goals and objectives, referrals to principal, and teacher, parent, and student perceptions were investigated by this study. The rationale for the study lay in the need for research on the effects of inclusive schools on students without disabilities. A recent review of the education abstracts listed in the Dissertation Abstracts International from 1993 to 1995 reveals an increase in the number of studies investigating the effects of inclusion on
students with disabilities, but did not reveal a large number of studies investigating the effects on students without disabilities.

Conceptual Framework

This study examined the academic achievement and classroom behavior of students without disabilities who had students with specific learning disabilities included full-time in their urban elementary fourth grade classroom. For this research, the selected school was classified as urban because it was in a rapidly growing city of the Norfolk-Virginia Beach-Newport News Metropolitan Statistical Area (Norfolk MSA), as defined by the US Office of Budget and Management. The school was in the center of the city and served a student population comprised of 61% minority. Figures from the Virginia Outcome Accountability Project (VADOE, 1992) show that 62% of the students received free or reduced lunches and 38% of the students could have purchased lunches at full price.

A collaborative teaching model was used to facilitate learning for students with disabilities and students without disabilities. Students with disabilities were enrolled full-time in two fourth grade general education classrooms. General and special education teachers worked in a cooperative teaching arrangement, to teach jointly all students in the integrated educational setting (Friend & Cook, 1992). This cooperative teaching model had both general and special education teachers simultaneously present in the general education classroom, maintaining joint responsibilities for specified instruction. The use of the collaborative teaching arrangement was monitored through the completion of task logs by all staff involved and by administrative observation.

Academic achievement for students without disabilities was measured by the 1993-94 and 1994-95 Iowa Tests of Basic Skills Multilevel Battery (Appendix A), and 1993-94...
and 1994-95 final report card grades in reading, language, spelling, social science, science and mathematics. Academic achievement for students with disabilities was measured by the 1993-94 and 1994-95 Kaufman Test of Educational Achievement (Appendix B).

1993-94 and 1994-95 final report card grades in reading, language, and mathematics, and percentage of completed goals and objectives on their 1993-94 and 1994-95 IEPs. Staff and parents completed questionnaires to decide what they perceived to be the academic and behavioral effect of an inclusive classroom. Interviews were completed with the students to decide their perceptions of the academic and behavioral effect of an inclusive classroom.

Inappropriate behaviors were measured by formal referrals made to the principal for disruptive classroom behavior. Disruptive behavior was defined as any situation when the student was not engaged in task-oriented behavior and when this behavior led to the distraction or disruption of others. Disruptive behavior included being out of his or her seat (unless requested by the teacher), interfering with the work of others, inappropriate verbalizations, and aggression, such as hitting. Referrals were completed when students did not respond to teacher redirection.

The students who served as subjects of this study included 68 general education students, fifteen students with at-risk profiles, 12 students with specific learning disabilities, four fourth grade teachers, one teacher of students with learning disabilities and one (1) teacher assistant of students with learning disabilities.

Statement of the Problem

This study examined the question of the academic achievement and classroom behavior of students without disabilities who had students with specific learning disabilities
included full-time in their urban elementary fourth grade classroom. Haring et al. (1994) describe academic achievement via the questions:

1. How does the student compare with other students his or her age on grade-level proficiency tests?
2. What can the student do (and not do) in each basic academic skill area?
3. What is the potential of the student in each academic and extracurricular subject area at his or her grade level?

Behavioral competency is positive social interactions with peers. Behavioral incompetence is evidenced by students who rarely take part in play and other informal peer interactions and resist joining educational activities. Greenwood, Walker, and Hops (1977) described two variations:

1. Noninteractive students, who have poorly developed social skills and may fear interactions with others; and
2. Rejected students who do initiate social interactions but in such aggressive, immature, or otherwise inappropriate ways that their interactions are avoided or ignored by other children.

The following research questions guided this study in examining the academic achievement and classroom behavior of students without disabilities who had students with specific learning disabilities included full-time in their urban elementary fourth grade classroom.

1. How will the academic achievement of general education fourth grade students of average ability be affected given instruction under the inclusion model that integrates students with specific learning disabilities?
2. How will the academic achievement of fourth grade students with at-risk profiles be affected given instruction under the inclusion model that integrates students with specific learning disabilities?

3. How will the academic achievement of students with learning disabilities be affected given instruction under the inclusion model that integrates them into a general education classroom?

4. How will the classroom behavior of general education fourth grade students of average ability be affected given instruction under the inclusion model that integrates students with specific learning disabilities?

5. How will the classroom behavior of at-risk fourth grade students be affected given instruction under the inclusion model that integrates students with specific learning disabilities?

6. How will the classroom behavior of students with learning disabilities be affected given instruction under the inclusion model that integrates them into a general education classroom?

Results of this study will contribute to the validation of the hypothesis: When students without disabilities have students with disabilities included full-time in their general education classroom their academic achievement and appropriate classroom behavior will be increased significantly.

Definition of Terms

Definition of Inclusion

The terms LRE and mainstreaming are related but different concepts. LRE refers to the legal principle that students with disabilities are to be educated as close as possible
Mainstreaming and integration are educational terms that refer to the practice of placing students with disabilities in general education classes. Mainstreaming is a means of meeting the LRE requirement of IDEA (Meyen, 1990).

Neither the Virginia Department of Education nor the Federal Office of Education has established an official definition of inclusion. The State Special Education Advisory Committee (SSEAC) presented their definition to the State Board of Education during its regular session on June 23, 1993. The SSEAC defined inclusion as:

Opportunities for all students with disabilities to have access to and participate in all activities of the total school environment, both academic and social, curricular and extracurricular; students would be educated, with support and adaptations, with peers without disabilities who are age-appropriate, in general education settings, and whenever possible, in their home school (SSEAC. 1993, p. 7).

Based upon extensive study of inclusive programs and consultation with educational leaders, the National Center on Educational Restructuring and Inclusion (NCERI, 1994) has developed the following working definition:

Providing to all students, including those with significant disabilities, equitable opportunities to receive effective educational services, with needed supplementary aids and support services, in age-appropriate classes in their neighborhood schools, to prepare students for productive lives as full members of society (p. 3).

Inclusion is used to refer to the commitment to educate each child, to the maximum extent appropriate, in the school and classroom he or she would otherwise attend. It involves bringing the support services to the student, rather than having the
student "pulled-out" for the support services (Rogers, 1993).

According to Adams (1993), unlike segregated "pull-out" practices, inclusion is both a philosophical and programmatic orientation toward the student's right to be educated in the general education classroom. With inclusion, special education services are offered within general education classrooms, in neighborhood schools, no matter the student's categorical label or extent of disability (Padeliadu & Zigmond, 1996). Researchers have shown that certain students with disabilities can be provided effective special services in general education (Alper & Ryndak, 1991; Berres & Knoblock, 1987; Brinker & Thrope, 1984; Giangreco, Edelman, Dennis, Cloninger, & Fox, 1989; Giangreco & Putman, 1991).

Keenan (1994) and Walther-Thomas and Carter (1993) found inclusionary schools to have common attributes. One common attribute is adequate support for teachers and students (Cheney, 1994). Ensuring this planned effort to support teachers and students requires a team approach (Schnepf & Kleinle, 1994). Other common attributes are the local education agency (LEA) and school take ownership and develop its own definition and mission statement (Guettel, 1993). An additional attribute is collaborative decision making (Gable, 1994).

**Definition of Specific Learning Disabilities**

The definition of specific learning disabilities as stated in the Virginia State Department of Education Regulations Governing Special Education Programs for Children with Disabilities in Virginia (VDOE, 1994a) is the U.S. Office of Education definition of specific learning disabilities. For this study, this definition of specific learning disabilities will be employed:
Specific Learning Disabilities means a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which may manifest itself in an imperfect ability to listen, think, speak, read, write, spell or to do mathematical calculations. The term includes such conditions as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. The term does not include children who have learning problems that are primarily the result of visual, hearing, or motor disabilities, of mental retardation, of emotional disturbances, or of environmental, cultural, or economic disadvantage (VDOE, 1994a pp. 10-11).

**Definition of Student with At-Risk Profile**

Evolving service options for students with disabilities represent one change impacting on schools. Another is the increasing number of students who fail to qualify for special education services, but who exhibit serious learning and adjustment problems (Schrag, 1990). The Commission on Educational Opportunity for All Virginians (Wilder, 1991) acknowledged the students who are educationally at-risk due to family circumstances related to poverty (Wilder, 1991). Research for the Commission found that measures of student educational success, including all student achievement test scores, percent of students retained in grade, and average daily absenteeism are related strongly to disparity of student circumstance based in family poverty. Indigent students, particularly those in areas with high concentrations of poverty, require special services if they are to be given an equal educational opportunity (Spagnolo, 1991).

Support for inclusion is coming from educators concerned with the student at-risk population. Students with at-risk profiles experience academic difficulty, but do not
qualify for special education services. With the number of students at-risk increasing, some authorities believe it is creating a hardship on general education teachers who are trying to meet the education needs of all students (Cooper & Speece, 1990: Lombardi et al., 1990). Cooper and Speece (1990) and Lombardi et al. (1990) advocate that special education services should be made available for students with at-risk profiles through inclusive schools.

According to IDEA 1997, the special education teacher would be available for providing assistance to students at-risk. IDEA provides that special education and related services and supplementary aids and services will be provided in a general class to a child with a disability in accordance with the individualized education program (IEP) of the child, even if one or more nondisabled child benefit from such service.

For this study, a student with an at-risk profile means a student who is academically functioning in the fourth quartile on the Iowa Tests of Basic Skills Multilevel Battery (ITBS). The student comes from an urban area where the percentage of the families below the federal poverty level is higher than the percentage of the families below the federal poverty level for the state, as reported by the 1990 U.S. Census. The percentage of students in the school with approved applications for free and reduced price lunch during the 1994-95 school year is higher than the state average, as reported by the Outcome Accountability Project (OAP) Report. The educational level of the community is lower than the educational level of the state, as reported by the 1990 U.S. Census. The 1993 Median Adjusted Gross Income is lower than the Median Adjusted Income of the state, as reported by the Virginia Department of Taxation (VDOE, 1996).
Limitations of the Study

This study was limited in scope, in that it examined a single urban elementary school from one LEA of the Norfolk-Virginia Beach-Newport News Metropolitan Statistical Area (Norfolk MSA). Only those elementary teachers using a collaborative teaching method in an inclusion model were represented. The students with disabilities followed in this study presented identified, specific learning disabilities only.

The public school setting did not permit random assignment of subjects. The experimental and control group comprised students whose placement was determined by building administration. Despite the participation of all fourth grade students, it is possible that the subjects in the experimental group—because they were placed by administration—possess different traits from the subjects in the control group.

Summary

This chapter has provided an overview of the study and has presented the need for researching the effects of inclusion as one important to education. This chapter has provided background for this research project. It has introduced and explored arguments supporting and opposing inclusion of students with learning disabilities in general education. The significance and limitations of the study also have been presented in Chapter I.

Chapter II provides the theoretical framework for the study. The chapter will present a review of the literature that addresses this complex and important issue more thoroughly. The review of the literature is presented in five major sections: a history and overview of the federal special education regulations, recent interpretations of IDEA, a review of traditional service delivery models, attributes of an effective inclusive school,
and general education concerns.

Chapter III includes a discussion of the research design, description of the sample, methodology, data gathering procedures, and data analysis. Chapter IV presents the results of the study. Conclusions and recommendations for future research are addressed in Chapter V.
CHAPTER II
REVIEW OF THE LITERATURE

This chapter will provide the theoretical framework for this study. Review of the literature will be presented in five major sections:

1. History and Overview of the Federal Special Education Regulations;
2. Interpretations of the Individuals with Disabilities Education Act Amendments of 1997;
3. Review of Traditional Service Delivery Models;
4. Attributes of an Effective Inclusive School;
5. General Education Concerns.

In the first section of this chapter, a brief history of the development of federal special education regulations is given. Included is a review of the literature, which indicates that the educational philosophy and regulations for students with disabilities attending public school occur in several phases. Also, included in the first section of this chapter is an overview of federal laws regulating special education services in public school settings. The enactment of IDEA and Section 504 mandate significant changes in the education of individuals with varying disabilities. Each state education agency and LEA must prove annual compliance assurances to the federal office of education.

In the second section of this chapter is a review of case law that has changed the interpretations of IDEA. Court decisions are suggesting a trend of greater inclusion of students with disabilities in general education classrooms. The language of IDEA suggests that Congress envisions an educational system by which all students, no matter the severity of their disabilities, will be educated in an environment as close as possible to
students without disabilities (Osborne, DiMattia, & Curran, 1993). The third section of this chapter reviews the models of service delivery for students with disabilities which evolved out of the original Education of the Handicapped Act of 1975. This section examines how IDEA establishes a continuum of alternative services and placements to the general education classroom for students with disabilities (IDEA, 1975, §§ 300.551).

In the fourth section of this chapter an examination of researchers' views of attributes of an effective inclusive school is given. In the final section of this chapter is a discussion of the concern about the possible impact of inclusion of students with disabilities on general education teachers and students. Administrators, teachers, and parents have raised important questions about areas in which little research has been conducted. This section will reveal the significant division between general and special education professionals in support for and against inclusion. This division is also found between general and special education parents.

History and Overview of Federal Regulations

Rothstein (1990) stated that the philosophy affecting special education regulations has evolved in several phases. The first phase, evident in the late 1800s, was a philosophy of relieving pressure on the teacher and other students by removing students with disabilities to separate, special education classes and facilities. The segregationist perspective continued in later years, but the underlying emphasis was to avoid the general education classroom pressure on the student with the disability. Eventually, educational programming was provided in the segregated setting in diluted academic and manual training (Haring, McCormick, & Haring, 1994).

The second phase emerged in the mid-1900s with the recognition of the worth and
dignity of the student with a disability. Educational leaders recognized that separation in the educational process was usually inherently negative. As a result, students with disabilities were integrated back into general education classrooms in areas of their strength (Rothstein, 1990).

It is the Brown v. Board of Education (1954) case that forcefully states the philosophy of integration. This decision is based on the federal constitutional principle of the fourteenth amendment, which provides that the state may not deprive anyone of "life, liberty, or property, without due process of law" nor deny anyone "equal protection of the law" (U.S. Constitutional Amendment, XIV). Education is not a federally protected right, but when the state undertakes to provide education, a property interest is created by the state (U.S. Constitutional Amendment, X). The Brown (1954) decision recognizes educating African-American children separately, even if done so in "equal" facilities, is inherently unequal because of the stigma attached to being educated separately and because of the deprivation of interaction with children of other backgrounds (Rothstein, 1990).

Educating students with disabilities in the general classroom, parallels the movement away from racial segregation. Application of the principles set forth in the Brown (1954) decision culminates in landmark decisions for special education in 1972. In the Pennsylvania Association for Retarded Children (PARC) v. Pennsylvania (1972) and Mills v. Board of Education (1972) cases, district courts approved consent decrees that enjoin states from denying education to students with disabilities without due process. The Mills (1972) decision mandates that due process include procedures relating to the labeling, placement, and exclusionary stages of decision making. The basic framework set
out in the Mills (1972) decision is incorporated into the Education for All Handicapped Children Act (presently known as IDEA).

In the evaluation of what is meant by "equal," the Supreme Court traditionally applies differing degrees of scrutiny in its examination of the practices of governmental entities. If the individual affected by the practice is a member of a "suspect class" such as a racial minority, or if the right at issue is a "fundamental right" such as privacy, the practice will be scrutinized strictly. Where the classification is not a specially protected class, or if the right is not an important one, the practice will usually be upheld if any rational basis exists. Students with disabilities have not been held to be members of a suspect class (City of Cleburne v. Cleburne Living Center, 473 U.S. 432 [1985]), but education has been recognized as deserving of "special constitutional treatment," and an intermediate test of heightened scrutiny has been applied (Plyler v. Doe, 457 U.S. 202 [1982]).

The Education for All Handicapped Children’s Act (EAHCA) is technically an amendment to the 1970 Education of the Handicapped Act (EHA). The EAHCA amends Part B of the EHA, and is significant because it provides the important elements of procedural safeguards and integration. The underlying principles of EAHCA are:

1. All students with disabilities must be given an education.
2. This education must be provided in the least restrictive environment.
3. This education must be a free appropriate public education.
4. Procedural protections are required to ensure that the substantive requirements are met (Rothstein, 1990).

Most states have adopted the federal regulations in IDEA as framework. Many
have expanded on these regulations and have provided more detailed or additional requirements for special education programming. The Virginia Department of Education has expanded many areas of the federal special education requirements. For example:

1. Expand the age mandate,
2. Include other categories of disabilities.
3. Allow for additional procedural safeguards.
4. Provide for licensing of teachers.
5. Develop program standards, and

The Virginia Department of Education ensures that all persons with disabilities from two to twenty-one, inclusive, residing in the Commonwealth of Virginia are identified, evaluated, and have available a free and appropriate public education. The provisions set forth in VDOE (1994a) apply to all public and private schools and agencies in Virginia that provide special education and related services to children with disabilities.

In essence, all LEAs in Virginia have adopted the federal law and regulations in IDEA through the adoption of the Regulations Governing Special Education Programs for Children with Disabilities in Virginia, Effective January 1994. (Virginia State Department of Education [VDOE], 1994a). Just as many state education agencies (SEAs) have, many LEAs have expanded on these regulations and have provided more detailed or additional requirements for special education programming. These additional requirements at the SEA and LEA are resulting in inconsistencies in the eligibility and programming for students with disabilities between LEAs and SEAs.

which includes Section 504 (Section 504). That section requires that: "No otherwise qualified individual with handicaps . . . shall solely by reason of his handicap, be excluded from the participation in, be denied the benefits of, or be subject to discrimination under any program or activity receiving Federal financial assistance" (Section 504, 1973, § 104.4).

Section 504 does not grant funds to the states to provide education for students with disabilities. The law does make it illegal for any programs receiving federal funding to discriminate against an individual based on disability. IDEA mandates that a substantial amount of subsidization will take place to ensure that students with disabilities not only receive educational services, but also benefit from this education. The fact that Section 504 is not a funding statute and IDEA is a funding statute creates a problem with Section 504 as a source of ensuring education services. Section 504 case law indicates that some reasonable accommodation must be provided to meet the nondiscrimination standard; however, accommodation being provided in public education under IDEA goes beyond what is required in Section 504. The passage of Section 504 came in 1973, before the 1975 EAHCA. However, the finalization of the regulations under Section 504 came in 1978 and until this date the framework for public schools was limited. Section 504 does not provide as much protection both in terms of substantive requirements and procedural safeguards. Section 504 regulations are much less detailed than IDEA regulations and procedural safeguards for Section 504 are available under IDEA regulations.

Interpretations of IDEA

IDEA requires all SEAs and LEAs to educate students with disabilities in the least restrictive environment (LRE). Explicitly, IDEA states that the LRE provision applies
across the continuum of alternative services and placements to the general education classroom. IDEA mandates all SEAs and local LEAs establish procedures assuring that students with disabilities are educated to the maximum extent appropriate with students without disabilities. The use of special classes and separate facilities or other removal from the general education environment may occur only when the nature or severity of the student's disability precludes satisfactory instruction in general education classes, even with supplementary aids and services (Dubow, 1989).

The LRE provision has been cited frequently by courts in the provision of FAPE for students with disabilities decisions. Frequent questions courts have addressed regarded the meaning of the continuum of alternative placements, FAPE, LRE, and mainstreaming (Hartmann v. Loudoun County Board of Education (1997); Oberti v. Board of Education of Borough of Clementon School District, (1993); Greer v. Rome city School District, (1991); Daniel R. R. v. State Board of Education (1998).

LRE and mainstreaming are related terms that have different concepts. The legal principle that students with disabilities are to be educated as close as possible to the general education environment is called LRE (IDEA, 1975, §§300.550 [b] to §§300.550[d]). Mainstreaming is an educational term that refers to the practice of integrating students with disabilities in general education classes with appropriate instructional support. Mainstreaming is a means of satisfying the LRE requirement of IDEA (Meyen, 1990).

Many court decisions (Rothstein, 1990) in the years immediately after the passage of IDEA in 1975 addresses the LRE mandates in terms of the degree to which a given student should be mainstreamed (Greer & Brown, 1991). Many courts have held the LRE
mandate secondary to the provision of an appropriate instructional program (Johnston \textit{v.} Ann Arbor Public Schools, 1983). In its landmark \textit{Board of Education of Hendrick Hudson Central School District \textit{v.} Rowley} (1982) opinion, the U.S. Supreme Court stated that to be "appropriate," a special education program must be provided in the LRE (Osborne, 1992). Several courts have weighed the benefits of providing more specialized services in a segregated setting against the LRE mandate (Bonadonna \textit{v.} Cooperman, 1985).

Courts have had to determine if recommended services warranted removal from the general education environment or if they could be provided in a less restrictive setting. Many early court decisions have said that the LRE requirement could not be used to preclude a placement in a segregated setting if that setting is required to provide the appropriate education mandated by IDEA (\textit{Board of Education of East Windsor \textit{v.} Diamond}, 1986; \textit{Matthews \textit{v.} Campbell}, 1979). When LEAs prove that a satisfactory education could not be provided in a less restrictive setting, even with supplementary aids and services, courts have approved placement in a more restrictive environment (Johnston \textit{v.} Ann Arbor Public Schools, 1983; Lachman \textit{v.} Illinois State Board of Education, 1988; Wilson \textit{v.} Marana Unified School District, 1984).

To strike the balance between the benefits of mainstreaming and specialized educational services, some courts have approved a trade off in favor of mainstreaming only if it is shown clearly that the student would benefit from the socialization available in a mainstreamed setting. Sacrificing a degree of academic quality for the sake of socialization has been appropriate (Bonadonna \textit{v.} Cooperman, 1985; Roncker \textit{v.} Walter, 1983). One of the early court decisions on LRE allowed placement in segregated settings
(Plyler v. Doe, 1982). The legal principles that emerged from this case help to establish the foundation for recent courts to order inclusive placements. This opinion has given school officials additional guidance on meeting their obligations under the LRE mandate. In more recent cases, the courts have deviated from previous case law and favored inclusive programming for students (Rothstein, 1990).

The LRE mandate does not require LEAs to place students in their neighborhood schools in all situations. For greater efficiency, many LEAs have centralized many special education services. The courts have upheld this practice (Barnett v. Fairfax County School Board, 1991; Schuldt v. Mankato Independent School District, 1991).

The Fifth Circuit Court of Appeals has provided significant guidance on the LRE issue. In Daniel R. R. v. State Board of Education, (1989), the three-judge panel of this appeals court has stated that students with disabilities may be removed from the general education environment when they cannot be satisfactorily educated in that setting. The court found that LEA’s proposal for a separate class placement for this student does not violate the LRE requirement of IDEA.

To assist lower courts with LRE decisions, the appeals court has created a test for determining when a LEA has met its obligation to mainstream students with severe disabilities. Borrowing language from IDEA, the appeals court has stated that district courts should determine first whether education in the general classroom, with supplementary aids and services, can be achieved satisfactorily. Second, when it cannot, and special education must be provided, the court has instructed lower courts to decide whether the LEA has mainstreamed the student to the maximum extent appropriate. To decide the answers to this two-prong test, lower courts are instructed to analyze:
1. A student's ability to grasp the general education curriculum;
2. The nature and severity of the disability;
3. The effect the student's presence would have on the functioning of the general education classroom;
4. The student's overall experience in the mainstream; and
5. The amount of exposure the student with disabilities would have to students without disabilities (Alper & Ryndak, 1991, p. 377).

The Fifth Circuit's two-prong test has become the benchmark by which LRE cases in the past seven years have been decided. In some of these decisions, courts have used the test to order inclusive placements (Kubicek, 1994).

In Greer v. Rome City School District, (1991), the Eleventh Circuit Court of Appeals has adopted the Fifth Circuit's LRE test and has upheld the district court's decision. The appeals court has stated that a LEA must consider a complete range of supplemental aids and services before it can determine a student with disabilities cannot be educated in a general education setting. This determination must be made during the development of the IEP. The court did acknowledge that FAPE and LRE are often at odds in mainstreaming cases and that the former does limit and qualify the latter (Huefner, 1994).

Courts in Oberti v. Board of Education of the Borough of Clementon School District, (1992), and Board of Education, Sacramento City Unified School District v. Holland, (1992) ruled that LEAs have an affirmative obligation to consider placing students with disabilities in general education classrooms with the use of supplementary aids and services before they explore other alternatives. Citing the Fifth Circuit's test, the
court stated that LEAs must maximize mainstreaming opportunities. The court has declared that the preference for mainstreaming can only be rebutted by the LEA's proving that the disability is so severe that:

1. The student will receive little or no benefit from inclusion in the classroom;

2. The student is so disruptive that the education of other students is impaired; or

3. The cost of providing supplementary services will have a negative effect on other students (Siegel, 1994).

In the Oberti case (1992), the court held that IDEA requires LEAs to supplement and realign their resources to move beyond the systems, structures, and practices that tend to segregate students with disabilities unnecessarily. The court has realized that including the student in this case in a general education classroom clearly would require a modification of the curriculum. Strongly stating that inclusion is a right, not a privilege for a few, the court placed ultimate responsibility on the LEA to show that the student could not be educated in a general education setting with supplementary aids and services (Huefner, 1994). The Third Circuit Court of Appeals affirmed the district court's ruling but uses different reasoning. The court stated that the right to associate with peers without disabilities is a fundamental value of the right to public education and the fact that a student with disabilities may learn differently from his or her education within a general education classroom does not justify exclusion from that setting (Huefner, 1994).

The district court in Board of Education, Sacramento City Unified School District v. Holland, (1992) stated that IDEA's presumption in favor of mainstreaming requires placement in a general education classroom if the student can receive a satisfactory
education there, even if it is not the best academic setting for the student. Referring to
Greer (1991) and Daniel R. R. (1989) decisions, the court has emphasized that a student
can be placed in a special education class only if the student cannot receive a satisfactory
education in the general education class with appropriate support services. The Ninth
Circuit Court of Appeals has upheld the decision, adopting the district court’s analysis.
Taken together these court cases offer four factors that should be considered in LRE
decisions:

1. The educational benefit a student will derive from placement in a general
   education environment;
2. The nonacademic benefits of placement in a general education setting;
3. The effect the student will have on other students in the class; and
4. The cost of supplementary aids and services (Siegel, 1994, p. 45-51).

IDEA and its amendments, along with many court decisions, are having a
significant impact on the delivery of services to students with disabilities (Osborne et al.,
1993). The early emphasis on the development of separate programs and facilities for the
delivery of an appropriate education is giving way to the philosophy of integrating
students with disabilities in the general education classroom, or LRE (Ainscow, 1991).
Unfortunately, little empirical data are available concerning the academic achievements
and classroom behavior of the student without disabilities who have students with
disabilities included full-time in their general education classroom.

Inclusion is the term given to the philosophical and programmatic integration of
students with disabilities into the general education classroom with their peers, with the
needed specialized support and services (Cannon, Idol, & West, 1992; Deno, Maruyama,
Espin. & Cohen, 1990; Evans, Salisbury, Palombaro, Berryman, & Hollowood, 1992; Fuchs, Fuchs, & Bahr, 1990; Goor & Schwenn, 1993; Haring et al., 1992; Putnam, 1993; Walther-Thomas & Carter, 1993). This integration is viewed as a right and not a privilege (Heumann & Hehir, 1993; Huefner, 1994; Rothstein, 1990; Weiner & Hume, 1987). A LEA must consider a complete range of supplemental aids and services before it can determine that a student with disabilities cannot be educated in a general education setting (Oberti v. Board of Education of the Borough of Clementon School District (1992). This represents a recent development in the evolution of the doctrine LRE.

Review of Service Delivery Models

Historically, general education teachers have depended on special education teachers to remove students with disabilities from their classrooms. In this "refer and remove" model general education teachers did not get involved in the development or implementation of the individualized education program (Goldstein, Strickland, Turnbull, & Curry, 1980). Students with disabilities have had to "earn" the privilege of participating in integrated settings, a privilege a student can lose if he or she does not learn or behave in that setting. Students with disabilities have been mainstreamed by their special education teacher selectively into their more capable subject areas. The learning problem has belonged to the student, and the student with a learning problem has belonged to special education (National Association of Secondary School Principals [NASSP], 1993).

IDEA amended in 1997 states that the LRE provision applies across the continuum of alternative placements and services to general education classrooms. This is a move away from the "refer and remove" model. The definition of a continuum of alternative placements (IDEA, 1975, §§300.551) as stated in the VDOE (1994a) is a version of the
federal Office of Education definition. For this study, the definition of a continuum of alternative placement in the Virginia Regulations (VDOE, 1994a) will be employed:

1. The continuum must include the alternative placements listed in the definition of special education (i.e., instruction in regular classes, special classes, special schools, home instruction, and instruction in hospitals and institutions). The continuum must arrange for supplementary services (such as resource room or itinerant instruction) to be provided with regular class placement. The continuum should include integrated service delivery, that is, where some or all goals and objectives of the student's Individualized Educational Program are met in the general education setting with age-appropriate peers.

2. No single model for the delivery of services to any specific population or category of children with disabilities will be acceptable for meeting the requirement for a continuum of alternative placements (e.g., resource classes as the only option for children who need a self-contained placement or a separate faculty as the only alternative placement for students with disabilities). All placement decisions must be based on the individual needs of each child (VDOE, 1994a, p. 21).

While the continuum of services model, which provides for pull-out options, has been successful in creating access to special education services, some authorities question the overall appropriateness of separate programs. For example, Cannon et al. (1992) believe that students with mild disabilities benefit from similar, effective instructional practices, just as all other students educated in general education. In support of this
opinion, Deno et al. (1990), and Goodlad and Lovitt (1993) found that students with disabilities do better both behaviorally and academically in integrated programs. According to Goor and Schwenn (1993), it is the interaction between students with and without disabilities that enhances academic achievement for students with disabilities. Wall and Siegel (1994) question the need for separating students with mild disabilities who can academically perform in general education classrooms. According to Wisniewski and Alper (1994) the decision to include students with disabilities should not be based on capability to perform in the general education classroom.

Criticism of "pull-out" programs has been mounting, citing that separate special education has failed to meet the educational and social needs of all students with disabilities (Schulte, Osborne, & McKinney, 1990; Schnorr, 1990; Slavin, 1996). Leinhardt and Pallay (1982) argued that the separate delivery of services segregated students from their peers, stigmatized students with disabling labels, and provided programs not equal in opportunity to general education programs.

Hill and Kimbrough (1981) suggest that students receive less instruction with pull-out programs. In some supplementary programs, students, pulled out for extra support, miss class so frequently that the general education teacher offers them fragments of what the other students receive. Graves, Graves and Braaten (1996) report that even when instruction is coordinated and both teachers support each other, incompatible teaching methods and different materials may confuse students.

Attributes of an Effective Inclusive School

Since no official definition of "inclusion" has been established by the Virginia Department of Education or the Federal Office of Education, the State Special Education...
Advisory Committee (SSEAC, 1993) definition will be used for this study. The SSEAC defined inclusion as:

Opportunities for all students with disabilities to have access to and participate in all activities of the total school environment, both academic and social, curricular and extracurricular; students would be educated, with support and adaptations, with peers without disabilities who are age-appropriate, in general education settings, and whenever possible, in their home school (SSEAC, 1993, p. 7).

The term inclusion is used to refer to the commitment to educate each student, to the maximum extent appropriate, in the school and classroom he or she would otherwise attend. It involves bringing the support services to the student, rather than the student going to the support services (Rogers, 1993). Unlike "pull-out" segregated practices, inclusion is both a philosophical and programmatic orientation toward the student’s right to be educated in the general education classroom (Kovaleski, Tucker & Stevens, 1996). With inclusion, special education services are offered within general education classrooms, in neighborhood schools, no matter the student’s categorical label or extent of disability (Adams, 1993). Indeed, researchers have shown that certain students with disabilities can be provided effective special services in general education (Farlow, 1996; Slavin, 1996). Belief in the principle of normalization, the zero-reject policy, and the principle of partial participation have led Alper and Ryndak (1991), Berres and Knoblock (1987), Brinker and Thrope (1984), and Guetzloe (1993) determine that certain students with severe disabilities can be integrated into general education classrooms with supplementary aids and supports.

In an inclusive school, student need determines placement in the curriculum.
(Warger & Pugach, 1996). The issues become appropriateness and necessary curriculum adaptations. Achievement or lack of achievement within the classroom generates increased or decreased services. Individualized education programs (IEPs) are referenced to the general education curriculum (IDEA, 1997; Slavin, 1990; Thousand & Villa, 1991).

Services provided to the special education students can be available to all students (Hardin & McNelis, 1996; Slavin, 1996). Inclusive instructional models foster diversity and support multiple levels of learning and student abilities (Graves et al., 1996). Cooperative learning is one of the most frequently recommended strategies for effective inclusion of students with disabilities in general education classroom programs (Stainback & Stainback, 1992).

Walther-Thomas and Carter (1993) recommend a task force model at school and district levels for LEAs initiating the inclusion model. The task force initially agrees upon certain basic goals and premises, but then is empowered to develop specific plans as a group effort. This task force must adopt nine critical elements for their inclusive environments:

1. Shared Vision and Commitment
2. Mutual Respect and Acceptance
3. Ongoing Administrative Support and Involvement
4. Clear Student Goals and Objectives
5. Adequate Staff Development
6. Realistic Professional Caseloads
7. Adequate Team Planning Time
8. Collaborative Decision Making


**Shared Vision and Commitment**

The philosophy statement and objectives that relate to inclusion should reflect the school's commitment to meeting the individual needs of all students in age-appropriate integrated school settings. The school should provide opportunities for students to develop a sense of responsibility and self-reliance through age-appropriate activities such as peer tutoring/mentoring, student government, and participation in decision making about important school issues (Giangreco, 1996). Families should be provided with frequent opportunities regularly to communicate with school staff on topics important to both the family and the school (Fox & Williams (1990).

**Mutual Respect and Acceptance**

According to Ayres and Hedeen (1996) and Thousand (1990), an inclusive school provides opportunities that build mutual respect and acceptance in students with disabilities, students without disabilities, and teachers and other school personnel. Three critical descriptors are identified:

1. All students are educated together in groups where the number of those with and without disabilities approximates the natural proportion.

2. Students participate in shared educational experiences at the same time. Though students are involved in the same activities, their learning objectives are individualized and, therefore, may be different.

3. The classroom shows an individualized balance between the academic/functional and social/personal aspects of schooling.

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Several studies show that the attitude of students without disabilities toward their peers with disabilities improves as they have increased opportunities to interact (Biklen, Corrigan, & Quick, 1989; Peck, Donaldson, & Pezzoli, 1990; Sasso, Mitchel, & Struthers, 1986; Voeltz, 1984). In these studies interactions increased between students with and without disabilities when systematic opportunities were provided through changes in curriculum (Sasso et al., 1986), peer tutor programs (Donder & Nietups, 1981; Sasso et al., 1986), or "special-friends" programs (Hamre-Nietups, Hendrickson, Nietups, & Sasso, 1993; Voeltz, 1984).

Ongoing Administrative Support and Involvement

According to Capper (1990), the building administrators must have a knowledge and understanding of the structural, human resource, political and a symbolic framework of an inclusive school. They cannot view their school from narrow and limited perspectives when giving support and being involved. Furthermore, a decision making structure must be in place to define current practices and outline future goals with a vision that encompasses all students regardless of differences in learning.

Building administrators must cultivate a school climate which signifies that all students belong at the school site. They must continually redefine the role of both the general education teacher and the special education teacher based on previous inclusion successes and emerging student needs. The sharing of fears and concerns must be promoted. An open door policy must be in effect for teachers, students, and parents (Capper, 1990).
Clear Student Goals and Objectives

According to IDEA 1997, the IEPs for students with disabilities are to be written and carried out by both the general and special education teachers. Collaborative teaching is one way to support these goals and objectives for students with disabilities in the general education classroom (Hunt & Farron-Davis, 1992). If the student with disabilities has an identified weakness in an academic area, the objectives for that subject must be written as behavioral-measurable terms. Under an inclusion option goals and objectives for individual student needs should be developed by adjusting the general education curriculum (Clark, Chaffin, Meyen, Harrod, Neilson, Rodriguez, Tollesfson, & Whalen, 1991; Graves et al., 1996).

Adequate Staff Development

Lack of adequate training to accommodate students with disabilities has been an ongoing complaint of many general educators (Gable & Hendrickson, 1993). General education teachers have stated lack of knowledge regarding planning for individual differences (Schmaltz, 1982) and training to develop group-individual instruction as a significant problem to inclusive schools (Baker & Zigmond, 1990; Brown, Gable, Hendrickson, & Algozzine, 1991; Fuchs, Fuchs, & Bishop, 1992).

In recognition of this obstacle, Bradley and West (1994) developed a plan of inservice training for inclusion staff that included the following components:

1. Instructional Strategies
2. Program Modification and Adaptation
3. Working with Others and Team Problem Solving
4. Student Grouping for Instruction
5. Expectations for Included Students with Disabilities
6. Monitoring and Evaluating of Student Learning
7. Knowledge of Specific Disabilities
8. Attitudes of Educators
9. Parent Involvement
10. Background of Inclusion (p. 125)

When educators are given opportunities to contribute recommendations for staff development that grows out of their specific experiences and concerns, they help make the training process for the inclusion of students with disabilities relevant and useful to them. Educators become empowered when their ideas are incorporated into training programs that prepare them to educate the diversity of students they find in their classroom. Empowerment encourages them to engage in instructional practices that prepare their students to function in a diverse and inclusive society (Bradley & West, 1994).

Realistic Professional Caseload

A review of the literature has been conducted by the Virginia Department of Education to determine a basis for the reduction of class sizes in general education when students with disabilities are mainstreamed. Thurlow, Ysseldyke and Wotruba (1988) suggest that extremely small student-teacher ratio (1:1 through 3:1) allow for more active academic responses and engaged time. However, little research exists to suggest that lower student-teacher class size ratios have an impact on either academic success or attainment of IEP goals and objectives for students with disabilities (Virginia State Board of Education, 1991).

Despite the information regarding the effects of decreased class sizes, the Virginia
Board of Education literature review revealed that student-teacher ratios are frequently reduced to improve student performance (Achilles, 1996). Therefore, it remains a common perception among teachers, parents, and administrators that reduced class sizes will increase student performance (Vaughn, Schuum, Jallad, Slusher & Saumell, 1996). This perception is supported by Billingsley and Cross (1989) who surveyed teachers in Virginia who has exited special education to enter general education. The presence of "too many students on a caseload" was cited by 23% of 286 respondents and was cited the most frequently as the deterrent to returning to special education (Virginia State Board of Education, 1991).

The Virginia Department of Education Special Education Program Standards (VDOE, 1994b) does not directly address a standard for caseloads for special education teachers in an inclusive school. It does address the caseloads for teachers of the learning disabled using the continuum of alternative placement model:

1. Combined self-contained/resource means programs where some students receive special education services 50 percent or more of the day and some students receive services less than 50 percent of their instructional day (excluding lunch).

The maximum caseload is 20 weighted points per teacher of the learning disabled. If the teacher has a teacher assistant, each resource student counts as one point and each self-contained student counts as two points. If the teacher does not have a teacher assistant, each resource student counts as one point and each self-contained student counts as two and a half points.
2. **Resource** means programs where students receive special education services less than 50 percent of their instructional school day (excluding lunch).

The **maximum caseload is twenty-four students to one teacher of the learning disabled.**

3. **Self-contained** means programs where students receive special education services 50 percent or more of their instructional day (excluding lunch).

The **maximum caseload is eight students to one teacher of the learning disabled or ten students to one teacher of the learning disabled and one teacher assistant (VDOE, 1994b, pp. 1-2).**

**Adequate Team Planning Time**

According to Bauwens and Hourcade (1991) and Johnson and Johnson (1987), to be successful, inclusive schools must afford collaborative teacher time for planning.

Pugach and Johnson (1995) observed that the routine practice of shared program planning offers the greatest possibility of assuring adequate support for regular classroom teachers to face the challenge of educating students with disabilities.

Four elements for effective team functioning (Thousand & Villa, 1990):

1. **Face-to-face interaction on a frequent basis**

2. An "all for one, one for all" feeling of positive interdependence

3. A focus on the development of small-group interpersonal skills in trust building, communication, leadership, creative problem solving, decision making, and conflict management.

4. Regular assessment of the team's functioning and goal setting for
improving relationships and task achievement (p. 9).

**Collaborative Decision Making**

Collaboration is a style for interaction between at least two-equal parties voluntarily engaged in shared decision-making as they work toward a common goal (Friend & Cook, 1996). The expertise of each individual educator, whose training and experience is very different, is combined to create a high quality instructional team (Kovaleski et al., 1996). The special education teacher is the process expert, bringing knowledge of learning implications, task analysis, diagnostic-prescriptive teaching, behavior modification, alternative curriculum strategies, and remedial instruction. The general educator generally is the content expert, bringing knowledge of general education curricula, management strategies for large group instruction, and an objective view of academic and social development (Bauwens, Hourcade, & Friend; 1989). According to Cook and Friend (1991), teachers who have success using a collaboration model have seven attributes:

1. Those involved must be voluntary participants.
2. They share professional goals that are specific.
3. Each must believe that he or she has something to contribute to the collaborative process and that his or her contributions will be valued by other members of the team.
4. They all share decision making.
5. After sharing responsibility for decisions, each shares accountability for the outcome of those decisions.
6. They are willing to share resources.
7. They portray trust, belief that the time and effort put in the program is worthwhile, and respect for one another.

Many arrangements have been identified under the term of teacher collaboration: team teaching, complementary instruction, supportive learning environment, collaborative consultation, intervention assistance, child study/resource teams, teacher assistance teams, behavioral consultant and peer collaboration (Friend & Cook, 1996; Graden, Casey, & Christenson, 1985; Pugach & Johnson, 1995; Warger & Pugach, 1996). Some forms of collaboration/consultation boast a more substantial research base than others, namely, teacher assistant teams (Chalfant & Pysh, 1989) and behavioral consultation (Polsgrove & McNeil, 1989). Still, the bulk of the accumulated literature on teacher collaboration is descriptive in nature—focusing on technical or procedural aspects of the collaborative process (Rosenfield, 1991).

**Appropriate Materials, Methods, and Evaluation Procedures**

Assurances must be given that resources will be available to carry out the integration program within integrated educational facilities. The provision of paraprofessionals in the classroom, consultation and/or direct services from special education resource teachers, and the availability of special needs materials will all serve to insure that the individual needs of each child can be adequately met (Evans, Bird, Ford, Green, & Bischoff, 1992). Students with disabilities are often unskilled at standardized testing. Cooperative learning structures can give students the opportunity to practice monitoring their own learning and can give teachers group opportunities to monitor individual progress (Goor & Schwenn, 1993).
General Education Concerns

A study of inclusion indicates that it has received mixed reviews from parents of students with disabilities (Fischer, 1993; Ho, 1994; Mann, 1994). That is, some parents voiced concern about inclusion after hearing stories of attempts that have run into significant difficulty because of poor application, lack of faculty communication (Kauffman, 1990), and insufficient administrative support and related services (Billingsley, 1993). In addition, some parents and educators fear that initiating inclusive schools is an attempt to decrease the cost of funding special education and to eliminate the rights of students with disabilities (Fischer, 1993).

Although many teachers support the inclusion of most students with disabilities in general education classes (Reynolds, Wang, & Walberg, 1987), some question the appropriateness of inclusion of all students with disabilities (Cohen, 1994). Some teachers are skeptical of inclusion because they do not feel that they can meet the varying needs for all students that are being assigned to their classrooms. Teachers express fear over a lack of preparedness to teach students with disabilities and opportunities to collaborate with special education staff (Friend & Cook, 1993; Schumm & Vaughn, 1995).

Albert Shanker, President of the American Federation of Teachers, warns against total inclusion. He stated that placement of students with disabilities in general education classes, without regard to the nature or the severity of the disability of the student, would be detrimental to the general education student. Shanker said that the impact of the special education student on the general education teacher and student must be a consideration in the placement practice of students with disabilities (Shanker, 1994).

Part of the concern over inclusion relates to questions between parents and
educators about the effects of inclusion on students without disabilities (Cosden, Pearl, & Bryan, 1985). Unfortunately, scant research has been conducted on the social benefits for students without disabilities who have the opportunity to interact with students with disabilities (Bilken et al., 1989; Murray-Seegert, 1989; Peck et al., 1990). Little research is reported on the effects of inclusion on the academic achievement of students without disabilities. The few available studies are inconclusive and suggest a need for further investigation of the specific benefits to students without disabilities because of their participation in relationships with peers who have disabilities.

Despite the limited research and mixed reviews by parents and educators inclusion cannot be ignored. LEAs will experience significant consequences if found in noncompliance with IDEA or Section 504, according to recent judicial interpretations that mandate inclusion for students with disabilities in general education environments. Consequences could include, but are not limited to, an extensive formal complaint process involving the "Virginia State Education Agency" (SEA), an elaborate due process and appeals system involving the Supreme Court of Virginia, lawsuits involving private attorneys, investigations by the federal Office of Civil Rights and possible reduction or loss of federal and state funding (VDOE, 1994a). For these reasons, the development of an inclusion program that can be academically beneficial to students with disabilities and students without disabilities should be foremost in the minds of public school administrators. An inclusion program that meets the educational needs of students with disabilities without slighting the education of students without disabilities is the objective.

Chapter II has provided a review of the literature on special education law and inclusion. A review of traditional service delivery models was included, as well as
attributes of an effective inclusive school. Chapter III includes a discussion of the research
design, description of the sample, and method of gathering data for this study. Chapter IV
presents the results of the research. Conclusions and recommendations for future research
are addressed in Chapter V.
CHAPTER III
RESEARCH METHODOLOGY

This study examines first the academic achievements and behavior of students without disabilities who have had students with specific learning disabilities included full-time in their urban elementary fourth grade classroom. Second, this study examines the academic achievements and classroom behavior of a subgroup of students without disabilities, students with at-risk profiles. A third purpose of the study is to decide the academic achievements and classroom behavior of students with specific learning disabilities who have been included full-time in urban elementary fourth grade classrooms.

The purpose of this chapter is to present the research methodology of the study including the research design, legal constraints of the experiment, description of the sample, materials used, and methods of gathering and analyzing the data. Quantitative and qualitative research methodologies were used to analyze the data.

Quantitative Research Methods

Quantitative research refers to investigations rooted in a positivistic approach to scientific inquiry. Positivism is a system of philosophy that excludes everything from its consideration except natural phenomena and their interrelationships. Most educational research is of this type (Borg & Gall, 1989). Researchers using quantitative methods of research attempt to keep themselves from influencing the collection of data. Instruments with established standardized properties are used to collect data. Statistical methods are used to analyze the data and draw conclusions (Borg & Gall, 1989).

Quantitative methodologies were employed to analyze the standardized data for significant changes that resulted from instruction being provided in an inclusive option.
Instruments were established and standardized observation schedules were used to collect data. Statistical methods were used to analyze the data and draw conclusions. Conclusions drawn are felt to be objective and independent of the bias, values, and idiosyncratic notions of this researcher. This could be an important element for research conducted on inclusion, since inclusion is such a controversial subject.

Qualitative Research Methods

Erickson (1986) defines qualitative field research as involving (a) intensive, long-term participation in a field setting; (b) careful recording of what happens in the setting by writing field notes and interview notes and by collecting other kinds of documentary evidence; (c) analytic reflection on the documentary records obtained in the field; and (d) reporting the results by means of detailed descriptions, direct quotes from interviews, and interpretative commentary. While not all qualitative researchers hold the same perspective, most do believe that people interpret and give meaning to their experiences and to events in their environment (Jacob, 1988).

The characteristics of qualitative research are commonly accepted by researchers in the various disciplines who employ the naturalistic inquiry perspective (Borg & Gall, 1989; Stainback & Stainback, 1988; Taylor & Bogdan, 1984). Three characteristics of qualitative research that most readily distinguish it from quantitative research are (a) that it involves holistic inquiry carried out in a natural setting, (b) that it uses inductive analysis procedures, and (c) that its theory is "grounded in the data" (Borg & Gall, 1989).

The "grounded theory" approach is a qualitative research method that uses a systematic set of procedures to develop an inductively derived grounded theory about a phenomenon. Often called the "constant comparative method of analysis," the "grounded
theory" method emphasizes two basic analytic procedures: (a) asking questions about the data and (b) making comparisons for similarities and differences between each incident concerning the phenomena being studied (Glaser & Strauss, 1967). Theoretical sensitivity is a personal quality or ability of questioning beyond who, what, when, where, and how of a phenomenon to gain deeper insights into the real meaning behind words and behaviors. Strauss and Corbin (1990) suggest several techniques to enable the researcher to become increasingly sensitive to what he or she perceives, which include using the following background sources: (a) literature, (b) professional experiences, and (c) personal experiences. Additionally, the analytic processes become a source of theoretical sensitivity.

In this researcher attempts to develop theoretical sensitivity by reflecting on her own experiences, both positive and negative, with various service delivery options. Additionally, the review of the literature conducted for this study provides insight into the pros and cons of various service delivery options. However, the researcher came to understand the importance of theoretical sensitivity while listening to the general and special education staff selected for inclusion who openly shared, on the one hand, their enthusiasm or, on the other hand, their frustration with implementing inclusion as a service delivery option.

The qualitative researcher can consider behavioral facts or social phenomena that exercise an external influence on people (Taylor & Bogdan, 1984). Theory validation and theory development are suited to qualitative methods and are particularly appropriate in the educational setting. Beginning in the 1960s, there has been growing interest in the potential contributions qualitative research could make to scientific/scholarly inquiry in
general education (Guba & Lincoln, 1985). This interest has begun to spill over into special education (Stainback & Stainback, 1984).

Stainback and Stainback (1988) suggest that qualitative methods seek answers to “What is happening in the field setting?” and “What does the happenings mean to the people involved?” These two questions are critical to this study, one major component of which is the investigation of parents, teachers, administrators, and students’ perspectives on the effectiveness of inclusion on academic achievement and behavioral competency of students.

Participant observation usually is considered the basic method of qualitative research. However, most researchers advocate data collection by more than one method, which is called data triangulation. The use of triangulation helps to prove validity and open new perspectives about the topic under investigation (Borg & Gall, 1989).

The participant observer, by virtue of being involved actively in the situation being observed, often gains insights and develops interpersonal relationships that are virtually impossible to achieve through any other method. The researcher may function primarily as an observer but may participate enough to gain rapport with the group and develop a better understanding of the group’s functions and relationships. Although in the past data has been almost entirely quantitative, a trend in educational ethnography today is to collect both qualitative and quantitative data (Borg & Gall, 1989). Quantitative data can provide the basic research evidence while the qualitative data can be used to round out the picture and provide examples (Denham & Lieberman, 1980).

Both qualitative and quantitative research have philosophical foundations, characteristics, and techniques that make them well suited to the exploration of some
questions and inadequate for the investigation of others (Dobbert, 1982). Perceptions of the qualitative versus the quantitative research paradigms range from assertions that the two approaches are incompatible and in direct conflict (Lincoln & Guba, 1985) to a more moderate position that each model is best suited to certain research questions and often a combination of the two approaches is superior to either (Reichardt & Cook, 1979).

Research Design

The following leading and auxiliary questions have been used to guide the research: What are the academic achievements and classroom behavior of students without disabilities who have had students with specific learning disabilities included in their urban elementary fourth grade classroom?

1. How will the academic achievements of general education fourth grade students of average ability be affected given instruction under the inclusion model that integrates students with specific learning disabilities?

2. How will the academic achievements of academically at-risk fourth grade students be affected given instruction under the inclusion model that integrates students with specific learning disabilities?

3. How will the academic achievements of students with learning disabilities be affected given instruction under the inclusion model that integrates them into a general education classroom?

4. How will the appropriate behavior of general education fourth grade students of average ability be affected given instruction under the inclusion model that integrates students with specific learning disabilities?

5. How will the appropriate behavior of academically at-risk fourth grade
students be affected given instruction under the inclusion model that integrates students with specific learning disabilities?

6. How will the behavior of students with learning disabilities be affected given instruction under the inclusion model that integrates them into a general education classroom?

The data base for this study included the 1993-94 and 1994-95 Iowa Tests of Basic Skills Multilevel Battery (ITBS), 1993-94 and 1994-95 final report card grades, and 1993-94 and 1994-95 referrals to principal for inappropriate behavior of students without disabilities and students with disabilities. The 1993-94 and 1994-95 Kaufman Test of Educational Achievement (KTEA) and completed goals and objectives on the 1993-94 and 1994-95 individualized education programs (IEPs) of students with disabilities were used. Teacher and parent surveys and student interviews were another source of data. The completion of task logs by all teachers and the teacher assistant involved in the inclusive model along with periodic direct observation by a trained observer were methods of gathering data to exercise experimental control over various instructional arrangements to which the students were exposed. The independent variables are (a) inclusion, and (b) no inclusion. The dependent variables were the academic progress and classroom behavior of the students without disabilities and the academic progress and classroom behavior of the students with disabilities.

Because the study was a quasi-experimental research design, using a pretest-post test control group, assigning subjects to the treatment and control groups randomly was not possible. Except the interviews and surveys, data was taken twice, once during the 1993-94 school year as a pretreatment measure of the outcome variable, and secondly...
during the 1994-1995 school year as a post-treatment measure of the outcome variable. The staff and parent surveys and student interviews were completed at the end of the 1994-95 school year. Academic achievement and classroom behavior of individual students, as measured by the ITBS, KTEA, end of the year report card grades, completion of IEP goals and objectives, referrals to principal, staff and parent surveys, and student interviews, were the dependent variables (Borg & Gall, 1989).

Permission was obtained from the superintendent of schools, building principal, and local educational agency (LEA) research committee to use faculty, students, and parents in the research project. This process included submitting a copy of the prospectus with the written request to conduct the study. A meeting was conducted with the division research committee to discuss the purpose and importance of the study, and how the results of the research apply directly to Elephant's Fork Elementary School and Suffolk Public Schools.

The researcher of this study was an employee of the Suffolk Public Schools and therefore exempted from the written consent requirement of the Family Educational Rights and Privacy Act of 1974. However, written consent was obtained from the parents of students included in the study. A copy of the letters of explanation and consent forms are included in Appendices C and D. Permission also was obtained from the parents for the children with disabilities and children without disabilities to be included in the research. This study involved minimum risk and did not use procedures for which written consent is normally required under the National Research Act of 1974. However, "informed consent" of parents for their children to participate in the research was obtained. A copy of the letters of explanation and consent forms can be found in Appendices C and D.
Besides the written information parents were given the opportunity to attend a Parent Teacher Association (PTA) meeting to hear an oral presentation on details of the study. The building principal, coordinator of special education services, and teachers involved in the inclusion service delivery option also met with parents to discuss their individual questions and concerns.

Once the research data were collected, the principal and researcher made certain that no one had access to the data except the researcher. The names of the students were removed from data-collection instruments and replaced by a coded number. Confidentiality of the research data was guarded by using a linkage system. The names of the students were substituted with numbers, so that only the principal had access to a closely guarded key that could identify data for a specific subject. Since this was a longitudinal study where data were gathered on the same subjects over a two year period, much valuable information would have been lost if the responses of specific subjects could not be identified. Similarly, data were gathered from a variety of sources. This data needed to be linked to have a clear picture of the phenomena being studied.

Description of the Sample

This relevant study has been conducted at Elephant's Fork Elementary School, Suffolk, Virginia. Suffolk is a part of the Norfolk-Virginia Beach-Newport News Metropolitan Statistical Area (Norfolk MSA), as defined by the United States Office of Budget and Management. Norfolk MSA is the twenty-eighth largest Metropolitan Statistical Area (MSA).

The urban designation is based on the percentage of the total population of the city designated as urban or rural by the 1990 Census. The following definitions from the 1990
Census of Population are included for clarity:

1. **Urbanized Area** - An urbanized area is an area consisting of a central city or cities, and surrounding closely settled territory. An urbanized area comprises an incorporated place and adjacent densely settled surrounding areas that together have a minimum population of 50,000.

2. **Urban Population** - The urban population comprises all persons living in urbanized areas and in places of 2,500 or more inhabitants outside urbanized areas.

For this study, Elephant's Fork Elementary School is classified as an urban school because it is in the center of the city of Suffolk, serving students from the inner city and surrounding area of the school. It has 681 students, 61% minority and 38% majority. Sixty-two percent of the students are receiving free or reduced lunches.

All 1994-95 fourth grade general education students attending Elephant's Fork Elementary School were subjects in the study. This decision was made by the building principal and special education coordinator. Teachers who had volunteered to work in an inclusive setting were either teaching fourth grade or were willing to be transferred to fourth grade. The number of students with learning disabilities per grade level in grades kindergarten through third grade were too small for the experiment. Since fifth grade was leaving for a middle school setting for the 1995-96 school year, it was felt that an additional year would be needed to prepare a middle school for an inclusive setting. Therefore, the fourth grade was chosen as the experimental grade level.

For purposes of the study, the **Regulations Governing Special Education Programs for Children with Disabilities in Virginia, Effective January 1994** (Virginia State...
The Department of Education [VDOE], 1994a) definition of specific learning disabilities has been used:

"Specific learning disabilities" mean a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which may manifest itself in an imperfect ability to listen, think, speak, read, write, spell or to do mathematical calculations. The term includes such conditions as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. The term does not include children who have learning problems that are primarily the result of visual, hearing, or motor disabilities, of mental retardation, of emotional disturbance, or of environmental, cultural, or economic disadvantage (p.11).

For this study, a student with an at-risk profile is a student who is academically functioning in the fourth quartile on the ITBS. The student comes from an urban area where the percentage of the families below the federal poverty level is higher than the percentage of the families below the federal poverty level for the state of Virginia, as reported by the 1990 U.S. Census. Percentage of students in the school with approved applications for free and reduced price lunch during the 1994-95 school year is higher than state average, as reported by the Outcome Accountability Project Report (VDOE, 1996). The educational level of the community is lower than the educational level of the state, as reported by the 1990 U.S. Census. The 1993 Median Adjusted Gross Income is lower than the median Adjusted Income of the state of Virginia, as reported by the 1990 U.S. Census.

A general education student is any student who is not disabled and not identified as
at-risk. This student falls within the first, second, or third quartile as defined by their 1993-94 ITBS scores. The number of students without disabilities was 68. Placement in the control and experimental classroom groups was decided by reading level as shown in the Silver Burdett and Ginn basal reader at the end of the 1993-94 school year and scores received on the 1994 ITBS.

Students without disabilities were placed in eight groups, numbered 1 to 8. Group 1 had the highest achievement in reading and ITBS scores and group 8 had the lowest achievement in reading and ITBS scores. Groups 1 and 5 were in control classroom A. groups 2 and 6 were in control classroom B, groups 3 and 7 were in experimental classroom A, and groups 4 and 8 were in experimental classroom B. This was an established school board policy carried out by the building principal. One control classroom had thirty-two students without disabilities and the other control classroom had thirty-one students without disabilities. Thirteen of the students transferred during the two-year experiment resulting in incomplete data and two parents refused permission for their child’s information to be used in the research. Therefore, a total of forty-eight students in the control classrooms participated in the research.

Fifty-six students participated in the experimental classrooms. Twenty students did not have any disabilities, fifteen students had at-risk profiles, and twelve students had learning disabilities. Nine students transferred during the two-year experiment resulting in incomplete data and were not included in the research. No parents refused permission for information on their child to be used in the research.

Two control classrooms did not have fully included students with disabilities. All parents wanted their child to participate in the experimental model. Therefore, having
students with disabilities mainstreamed in one of the two control classrooms was not necessary.

Each experimental classroom had six students identified as having a specific learning disability. One consulting, three resource, and two self-contained students with learning disabilities were included in each experimental classroom. Each student's participation in the model was determined by the June 1994 Individualized Education Plan (IEP) Interdisciplinary Committee.

The two control group classrooms received the fourth grade education curriculum, materials, teaching methods that were standard for Suffolk Public Schools. One fourth grade teacher was assigned to each of the two groups of thirty-five students without disabilities.

Two fourth grade teachers, one special education teacher of students with learning disabilities, and one special education teacher assistant were assigned to the experimental groups. This staff volunteered to participate in the study.

Each class was self-contained with twenty-nine students without disabilities, six students with learning disabilities, and one general education teacher. Each of the two classrooms used the fourth grade education curriculum, materials, and teaching methods. The equipment, materials, and teaching supplies used in special education resource and self-contained classrooms were integrated into the classroom for the use by all students enrolled in the experimental classrooms.

A direct collaborative teaching model was used in the experimental classrooms. In this model the special education teacher not only planned with the general educator, but also worked in the actual classroom with both the general education teacher and the
students having difficulty. The specific direct collaboration option used was cooperative teaching (Bauwens, Hourcade, & Friend, 1989).

Cooperative teaching was described by Bauwens, Hourcade, and Friend (1995) as an educational approach in which general and special educators work in a co-active and coordinated fashion to teach heterogeneous groups of students in educationally integrated settings. Both general and special education teachers are simultaneously present in the general classroom, maintaining joint responsibilities for specified education instruction that is occurring within that setting.

Cooperative teaching is an inherently flexible structure. This flexibility made it possible to implement cooperative teaching in a variety of potential instructional formats, with varying combinations of educators. Three arrangements used were (a) team teaching, (b) complementary instruction, and (c) supportive learning activities (Bauwens, Hourcade, & Friend, 1989). While the three formats are listed individually for the sake of clarity of presentation, they should not be seen as mutually exclusive. At any given time in the classroom, several of these approaches were used together. Specific implementation procedures evolved naturally out of the close planning and professional working relationship between the general and special services providers in the proposed cooperative teaching arrangement.

General and special education teachers teamed together to instruct all students within a general education environment. This arrangement combined the general and special education teacher expertise, in that the general education teacher had knowledge of the content area and management strategies for large group instruction. The special education teacher had the knowledge of student learning style, remedial instruction and
alternate curriculum strategies, and task analysis. The use of the collaborative teaching arrangement was monitored through the completion of task logs by all staff involved and by ongoing observations conducted by trained staff unfamiliar with the exact nature of the study.

The special education teacher and assistant rotated between the two self-contained experimental classrooms on opposite schedules. During the reading and language arts block, the special education and the general education teacher worked collaboratively. During the math, science, and social studies block the general education teacher and the special education assistant worked together.

Training and preparation for the staff of the experimental classrooms included on-site visits to other urban inclusive schools during the 1993-94 and 1994-95 school years. Inservices on inclusion, collaborative teaching, cooperative learning, and specific learning disabilities were conducted during the 1993-94 and 1994-95 school years. Workshops on legalities of inclusion, characteristics of students with learning disabilities, developing IEPs, making accommodations for Attention Deficit with Hyperactivity Disorder were conducted.

Three additional days were planned in the late summer to allow the general and special education teachers to plan units and lesson plans for the upcoming school year. Monthly meetings with the principal were held to discuss students, scheduling, and instruction. Meetings were held regularly throughout the year with the principal and coordinator of special education to discuss progress of students, success of the program and concerns. Throughout the year the inclusion team had common planning time three days a week.
Phone calls and letters to parents were done routinely throughout the year to keep them up to date on their child's progress. The Inclusion Task Force met three times to receive updates on the success of the program and the need for program adjustments and expansion.

Method of Gathering Data

Quantitative Methods

ITBS for Students Without Disabilities

The eighty-three (83) students without disabilities took the appropriate grade level assessment of the ITBS in March 1994 and March 1995 during their third and fourth grade learning experience. The ITBS scores of the forty-eight students without disabilities in the control classrooms and the thirty-five students without disabilities in the experimental classrooms the school year before this study and the year of this study will provide information for analysis. This data will be used as one measurement of the academic achievement of the experimental group is affected by the presence of the twelve students with disabilities.

The ITBS provides for comprehensive and continuous measurement of growth in the fundamental skills: vocabulary, reading, the mechanics of writing, methods of study, and mathematics. These skills are crucial to current day-to-day learning activities to further educational development (Appendix A). The control group, students without disabilities taught in a noninclusive environment and the experimental group, students without disabilities taught in an inclusive environment are measured on the ITBS in March 1994 and March 1995. The difference between the ITBS scores were analyzed with a t-Test to determine if academic achievement was affected.
KTEA and Students With Disabilities

The twelve students with disabilities took the Kaufman Test of Educational Achievement in March 1994 and March 1995 during their third and fourth grade learning experience. These KTEA scores will provide information for analysis. This data is helping to determine if the academic achievement of the students with disabilities is affected by the presence of the students with disabilities.

Effect size was selected as the appropriate data analysis technique for the KTEA scores. The effect size is a qualitative way of describing how well the average student who received the intervention performed relative to the average student who did not receive the intervention. The effect size is computed by subtracting the mean score of the control group on the dependent variables from the experimental group mean and dividing by the control group standard deviation. An effect size of zero means that the average student receiving the intervention did no better or worse than that of the average student not receiving it. The larger the effect size, the more powerful is the intervention. Researchers consider effect sizes larger than .33 to have practical significance; that is, the effect is large enough to make a worthwhile difference in the outcome. Negative effect sizes mean that the average student receiving the intervention did less than the average student not receiving it (Borg & Gall, 1989).

Final Report Card Grades

The final report card grades for the 1993-94 and 1994-95 school year were recorded for all students. The areas on the report card recorded for this study were reading, language, spelling, mathematics, social studies, science, and health.

Final letter grades were converted to a numerical number for each student for each
report card of the 1993-94 and 1994-95 school year. An A was converted to a four, a B was converted to a three, a C was converted to a two, a D was converted to a one, and an F was converted to a zero. All of the numbers for each of the six subjects were added for each student.

Effect size was used to analyze the repeated measures used in the experiment. The control group, students without disabilities taught in a noninclusive environment and the experiment group, students without disabilities taught in an inclusive environment are measured on their 1993-94 and 1994-95 report card grades.

IEPs of Students With Disabilities

The individualized education program (IEP) for students with disabilities in the experimental classrooms are developed from the educational assessment, Kaufman Test of Educational Achievement (KTEA) (Appendix B). The IEP goals and objectives were then cross-referenced to the Virginia Department of Education Standards of Learning (SOL) (Appendix E). Individual student progress and mastery of IEP and SOL objectives also were analyzed. This assessment has been completed the spring before the development of the 1993-94 and 1994-95 IEP. This data was used to decide if the inclusion model is supported the academic achievement of the students with learning disabilities. The percentage of IEP goals completed during the year before inclusion and the percentage of IEP goals completed during the year of inclusion were compared. The Wilcoxon Signed-Ranks Test was used to determine if there was a significance difference between the percentages of goals completed before and after being involved in inclusion.

Referrals to the Principal for Inappropriate Classroom Behavior

Referrals of disruptive students to the principal by the education staff were
recorded. Disruptive behavior is recorded responses where the student (a) was not engaged in task-oriented behavior and (b) this behavior led to the distraction or disruption of others. Disruptive behavior included being out of seat (unless requested by the teacher), interfering with the work of others, inappropriate verbalization and aggression (e.g., such as hitting). Referrals were completed when students failed to respond to teacher redirection. The number of referrals for students in the inclusion model was compared with the number of referrals for students in the noninclusive model.

**Qualitative Methods**

In the literature, the term triangulation means the combination of methods or sources of data in a single study (Denzin, 1978; Patton, 1980; Taylor & Bogdan, 1984). Although file notes based on first-hand experience in a setting provide the key data in participant observation, other methods and approaches can and should be used with fieldwork. Triangulation often is thought of as a way of guarding against researcher bias and assessing accounts from different informants. By drawing on other types and sources of data, observers also gain a deeper and clearer understanding of the setting and people being studied (Taylor & Bogdan, 1984). Participant observation usually is considered the basic method of qualitative research. However, most researchers advocate the strategy of using several different kinds of data collection instruments to explore a single issue, which as stated earlier is called triangulation of methodology. The use of triangulation helps to build confidence in the research findings regardless of whether qualitative or quantitative methodology has been employed (Borg & Gall, 1989).

The participant observer, by virtue of being involved actively in the situation being observed, often gains insights and develops interpersonal relationships that are virtually
impossible to achieve through any other research method. The researcher may function primarily as an observer, but may participate enough to gain rapport with the group and develop a better understanding of the group's functions and relationships.

**Surveys of Staff and Parents**

Initially, the researcher contacted the school principal to request permission to conduct the study in the school. The principal granted the requested permission, agreed to distribute and return the completed surveys to the researcher. An example of the surveys can be found in Appendix F.

Parent survey packets were sent to each participating teacher with instructions for distribution to the families participating in their program. A letter was sent to the parents requesting their cooperation and explaining the importance of the study. An example of the letter sent to parents can be found in Appendix C. The parents of all students in the inclusive classrooms were requested to complete a questionnaire. If the parent returned the questionnaire, the child received a free pencil. After the completed materials were returned to the researcher, the researcher wrote follow-up letters to the parents to encourage completion of the materials to parents who had not returned their questionnaire by the first due date and to thank parents for their cooperation.

A two-page questionnaire was developed to examine teacher attitudes and judgements about teaching children with disabilities fully included in a general education classroom. Instructions included a description of the survey's purpose. The questionnaire, as described below, consisted of a combination of items created specifically for this study.

Because survey research often involves interpretation of single items, reliability
must be addressed through item construction (Alreck & Settle, 1995; Fowler, 1993). In developing items for the questionnaire, staff members from the school district were consulted to ensure the applicability of questions for teachers both within and outside inclusive classrooms. Drafts of the questionnaire were reviewed by district supervisory staff members and teachers for clarity of items and for sources of bias in instrumentation and response formats. Several iterations of review and revisions were conducted before distributing the questionnaire.

All staff of the school was asked to complete a questionnaire. A letter requesting their cooperation that explained the importance of the study was sent, and was accompanied by a candy bar. The school principal distributed the letter, instrument, and attachment. After the completed materials were returned to the researcher, the researcher wrote follow-up letters to the staff to encourage completion of the materials that had not been returned by the first due date and to thank staff for their cooperation. A nonparametric method of data analysis was selected as the appropriate data analysis technique for the parent and staff surveys and student interviews. The percentages of positive and negative responses were calculated.

**Interviews of Students**

A consent form for interviewing their child was sent to parents. This request for consent was explained in the letter that accompanied the parent questionnaire. If the parent returned the consent form, the child received a free ice cream.

Interviews conducted by quantitative researchers are classified as structured, in which the interviewer closely follows an interview guide, or semistructured, in which some deviation from the interview guide is permitted. An example of the interview form is
found in Appendix G.

Two forms of a student interview were developed to assess student feelings/perceptions about themselves, their perception of their classmates' and teachers' attitudes toward them, and their view of special education services being provided. Each interview form was subjected to formative review by a panel of learning disabilities teachers and school psychologists.

Table 1

<table>
<thead>
<tr>
<th>Instruments Used for Data Collection</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Instrument</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Iowa Test of Basic Skills</td>
</tr>
<tr>
<td>Final Report Card Grades</td>
</tr>
<tr>
<td>Kaufman Test of Educational Achievement</td>
</tr>
<tr>
<td>IEP Objectives</td>
</tr>
<tr>
<td>Referrals to Principals</td>
</tr>
<tr>
<td>Staff Survey</td>
</tr>
<tr>
<td>Parent Survey</td>
</tr>
<tr>
<td>Student Interview</td>
</tr>
</tbody>
</table>

Data collected for this study included the 1993-94 and 1994-95 ITBS scores of the general education students and students with at-risk profiles, 1993-94 and 1994-95 KTEA scores of the students with disabilities, completed goals and objectives on the 1993-94 and
1994-95 IEPs of the students with disabilities, 1993-94 and 1994-95 referrals to principal for inappropriate behavior for all students. Additional data was collected with staff and parent surveys, and student interviews. Data collection and analysis procedures are summarized in Table 1.

**Time Logs of Inclusion Staff and Observations**

The inclusion team completed periodic task logs, as a means to exercise experimental control over the various instructional arrangements to which all students were exposed. A time log was developed to identify the activities the teachers engaged in throughout the day. An example of a time log can be found in Appendix H. The following activities served as points of reference on a time log:

1. Individual professional planning;
2. Direct teaching of students;
3. Miscellaneous school duties (e.g., lunch room duty, bus duty, playground duty);
4. Meetings with other school professionals;
5. Meetings with parents;
6. Miscellaneous paperwork (e.g., filling out report cards, attendance forms);
7. Monitoring students as they worked independently (e.g., in cooperative learning activities, at independent seat work);
8. Evaluation of students (e.g., grading tests, calculating report card grades);
9. Changing the classroom's physical environment (e.g., change bulletin boards, rearranging student desks);
10. Intervening in inappropriate student behavior; and
11. Referral paperwork.

Data collected were analyzed for trends and reported in narrative form.

A second means of control was the use of psychologists as trained observers who were not familiar with the exact nature of the study. These observations occurred once per six weeks. Times for observations were staggered throughout the school day and did not last more than three hours an observation.

Data Analysis

After much consideration, the researcher determined that a combination of qualitative and quantitative research methods best supported the purposes of this study that was to gain insight into the effects of inclusion on students without disabilities and students with disabilities. This chapter has outlined the research method employed to investigate the academic achievement and classroom behavior of students without disabilities who had students with specific learning disabilities included full-time in their urban elementary fourth grade classroom. The research design, quantitative and qualitative research methods, data gathering procedures and data analyses were discussed. The results of the analyses are discussed in Chapter IV.
CHAPTER IV

ANALYSIS OF DATA

Quantitative and qualitative methods were used to develop and answer six questions on the impact of fully included students with disabilities on the academic achievement and classroom behavior of urban elementary fourth grade students. This study first examined the academic achievements and classroom behavior of students without disabilities who had students with specific learning disabilities included full-time in their urban elementary fourth grade classroom. Second, this study examined the academic achievements and classroom behavior of a subgroup of students without disabilities, students with at-risk profiles. Third, the study was to decide the academic achievement and classroom behaviors of students with specific learning disabilities who had been fully included full-time in urban elementary fourth grade classrooms.

Effect Size and t-Test statistical techniques directed the analysis of the quantitative data and percentages guided the analysis of the qualitative data on the six questions:

1. To what degree was the academic achievement of general education fourth grade students of average ability affected given instruction under the inclusion option that integrated students with specific learning disabilities?

2. To what degree was the academic achievement of academically at-risk fourth grade students affected given instruction under the inclusion option that integrated students with specific learning disabilities?

3. To what degree was the academic achievement of students with learning disabilities affected given instruction under the inclusion option that integrated them into a general education classroom?
4. To what degree were the classroom behaviors of general education fourth grade students of average ability affected given instruction under the inclusion option that integrated students with specific learning disabilities?

5. To what degree were the classroom behaviors of academically at-risk fourth grade students affected given instruction under the inclusion option that integrated students with specific learning disabilities?

6. To what degree were the classroom behaviors of students with learning disabilities affected given instruction under the inclusion option that integrated them into a general education classroom?

The results of this study will be presented in the following order. First, the student demographic data will be provided. Second, quantitative and qualitative findings will be summarized for each of the six questions. Third, the observations and time logs of inclusion staff will be discussed. Fourth, a summary of the results and findings will be presented and discussed.
Table 2

**General Education Students in the Control and Experimental Classrooms**

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Control</th>
<th>Experimental</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>48%</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>52%</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>African-American</td>
<td>62%</td>
</tr>
<tr>
<td></td>
<td>White</td>
<td>38%</td>
</tr>
</tbody>
</table>

**Student Demographic Data**

Ninety-five students participated in this study, 48 general education students in the control classrooms and 20 general education students, 15 students with at-risk profiles, and 20 students with disabilities in the experimental classrooms. Table 2 provides the demographic data in percentages of the general education students in the control and experimental classroom.

Table 3 indicates the demographic characteristics of the students in the experimental classrooms. In this research model these students were compared with themselves during a two year period.
Table 3
Demographic Data of Students in Experimental Classrooms

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Education Students</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>45%</td>
</tr>
<tr>
<td>Female</td>
<td>55%</td>
</tr>
<tr>
<td>African American</td>
<td>60%</td>
</tr>
<tr>
<td>White</td>
<td>40%</td>
</tr>
<tr>
<td>Students with At-Risk Profiles</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>75%</td>
</tr>
<tr>
<td>Female</td>
<td>25%</td>
</tr>
<tr>
<td>African American</td>
<td>85%</td>
</tr>
<tr>
<td>White</td>
<td>15%</td>
</tr>
<tr>
<td>Students with Disabilities</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>67%</td>
</tr>
<tr>
<td>Female</td>
<td>33%</td>
</tr>
<tr>
<td>African American</td>
<td>42%</td>
</tr>
<tr>
<td>White</td>
<td>58%</td>
</tr>
</tbody>
</table>

Data for this study was collected by using the 1993-94 and 1994-95 ITBS scores of the general education students and students with at-risk profiles, 1993-94 and 1994-95 KTEA scores of the students with disabilities, completed goals and objectives on the 1993-94 and 1994-95 IEPs of the students with disabilities, 1993-94 and 1994-95 final report grades for all students, 1993-94 and 1994-95 referrals to principal for inappropriate behavior for all students. Additional data was collected with staff and parent surveys, and student interviews. Data collection and analysis procedures are

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summarized in Table 4.

Table 4

Data Collection Analysis

<table>
<thead>
<tr>
<th>Question</th>
<th>Sample</th>
<th>Instrument</th>
<th>Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>General Education Students</td>
<td>ITBS</td>
<td>t-Test</td>
</tr>
<tr>
<td>2</td>
<td>Students with At-Risk Profiles</td>
<td>ITBS</td>
<td>Effect Size</td>
</tr>
<tr>
<td>1</td>
<td>General Education Students</td>
<td>Final Report Card Grades</td>
<td>Effect Size</td>
</tr>
<tr>
<td>2</td>
<td>Students with At-Risk Profiles</td>
<td>Final Report Card Grades</td>
<td>Effect Size</td>
</tr>
<tr>
<td>3</td>
<td>Students with Disabilities</td>
<td>Final Report Card Grades</td>
<td>Effect Size</td>
</tr>
<tr>
<td>3</td>
<td>Students with Disabilities</td>
<td>KTEA</td>
<td>Effect Size</td>
</tr>
<tr>
<td>3</td>
<td>Students with Disabilities</td>
<td>IEP Objectives Completed</td>
<td>Chi-square</td>
</tr>
<tr>
<td>4</td>
<td>General Education Students</td>
<td>Referrals to Principal</td>
<td>Percentage</td>
</tr>
<tr>
<td>5</td>
<td>Students with At-Risk Profiles</td>
<td>Referrals to Principal</td>
<td>Percentage</td>
</tr>
<tr>
<td>6</td>
<td>Students with Disabilities</td>
<td>Referrals to Principal</td>
<td>Percentage</td>
</tr>
<tr>
<td>1,2,4,5,6</td>
<td>Staff</td>
<td>Survey</td>
<td>Percentage</td>
</tr>
<tr>
<td>1,3,4,6</td>
<td>Parents of Students without Disabilities</td>
<td>Survey</td>
<td>Percentage</td>
</tr>
<tr>
<td>1,3,4,6</td>
<td>Parents of Students with Disabilities</td>
<td>Survey</td>
<td>Percentage</td>
</tr>
<tr>
<td>1,3,4,6</td>
<td>Students without Disabilities</td>
<td>Interview</td>
<td>Percentage</td>
</tr>
<tr>
<td>1,3,4,6</td>
<td>Students with Disabilities</td>
<td>Interview</td>
<td>Percentage</td>
</tr>
</tbody>
</table>

A current trend in education ethnography is to collect both qualitative and quantitative data (Guba & Lincoln, 1985). Quantitative data provides the basic research evidence while the qualitative data rounds out the picture and provides examples (Taylor...
This dual approach to analyses is important in reviewing the effects of inclusion. Previous research has viewed inclusion programs as successful if actual significant changes resulted from the inclusion option, if staff and parent disposition toward inclusion was positive, and if they believed inclusion to be successful (Davis & Maheady, 1991; Janey, Snell, Beers, & Raynes, 1995; Minke. Bear, Deemer, & Griffin, 1996; Stainback & Stainback, 1991).

Quantitative methodologies were employed to analyze the standardized data for significant changes that resulted from the inclusion option of instruction. The researcher attempted to keep from influencing the collection of data. Instruments were established and standardized observation schedules were used to collect data. Statistical methods were used to analyze the data and draw conclusions. Conclusions drawn are felt to be objective and independent of the bias, values, and idiosyncratic notions of this researcher.

In contrast, qualitative methodologies were employed to analyze the perceived effects of inclusion by staff, parents, and students. These methodologies relied heavily on the feelings, impressions, and judgements in collecting data. Findings were often reported in the verbal description rather than as quantitative summaries of the type yield by statistical analysis. Content analysis was completed on three sources of data including parent surveys, staff surveys, and student interviews. Consistencies in the data, recurring themes in the responses and specific comments were coded and grouped into conceptual categories and patterns for interpretation. Each of the three sources of data is discussed separately under the analysis of each question.

This researcher often interacted closely with those involved in the study. The qualitative research data arose out of these interactions to reveal what people believed
about the success of inclusion. The reason is that most of the phenomena of interest in inclusion are internal events such as perceptions and feelings about student progress and actual student progress. To get an accurate understanding of these internal states, surveys, interviews, observations and regular meetings were held with the inclusion staff and the researcher. In fact, those being studied were included as participants in the design of the study and interpretation of the study. Torbert (1981) called this process “collaborative inquiry” and argued that it improved the validity and usefulness of a study’s findings.

Quantitative and qualitative analyses will be reviewed for each of the six questions. Findings will be provided for each question. The specifics of any differences and similarities will be summarized.

Question One

Question One asked: How will the academic achievements of general education fourth grade students of average ability be affected given instruction under the inclusion model that integrates students with specific learning disabilities?

Both quantitative and qualitative methodologies were employed to assess the academic achievement. Effect size and t -Test guided the analysis of the quantitative data gathered on the ITBS scores and final report card grade of the general education students. Data collected from staff surveys, parent surveys, and student interviews were guided using percentages of responses.

ITBS

Administration of the ITBS was given at the end of the third and fourth grade level to all students without disabilities. This battery was used to report student progress in
learning the basic skills (Hieronymus, Hoover, & Lindquist, 1988). The ITBS was
discussed thoroughly in the previous chapter and in Appendix A. To address question a
the t-Test was employed to compare over time mean scores on the ITBS for students
without disabilities.

The t-Test is a quantitative method of analyzing the differences between two
means. Three assumptions about the scores obtained were made by the t-Test. First,
scores were assumed to form an interval or ratio scale of measurement. Second, scores in
the populations under study were normally distributed. Third, score variances for the
populations under study are equal (Borge & Gall, 1989).

The t-Test was used to determine just how great the difference between two
means must be for the results to be judged significant, that is, a significant departure from
differences, which might be expected by chance alone. A difference might be observed
between the two ITBS scores recorded on the group of students without disabilities
before and after the inclusion option was used with the experimental group. This
difference might be statistically nonsignificant and attributable to change (Borge & Gall,
1989).

ITBS data for the 1994 and 1995 school years analyzed by the t-test showed
significant gain in test scores for the students without disabilities in the control classrooms.
The difference in the ITBS scores were statistically significant, $X^2 (1, N 48) = 17.95027, p$
$= < .05$. Table 5 summarizes the ITBS scores of the general education students in the
control classroom for the 1994-95 school year.
Table 5

**ITBS Means, Standard Deviations, and Mean Differences for Students without Disabilities in the Control Classrooms**

<table>
<thead>
<tr>
<th>Test</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Mean Difference</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITBS 1994</td>
<td>107.10417</td>
<td>11.28214</td>
<td></td>
<td></td>
<td></td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>ITBS 1995</td>
<td>119.60417</td>
<td>11.78304</td>
<td>-12.5</td>
<td>17.95027</td>
<td>(47)</td>
<td>&lt;0.05</td>
</tr>
</tbody>
</table>

The 1994 and 1995 ITBS scores showed significant gain for students without disabilities in the experimental classrooms. The difference in the ITBS scores were statistically significant, $X^2 (1, N 19) = 8.81268, p = .05$. Table 6 summaries the ITBS means, standard deviations, and mean differences of the general education students in the experimental classroom for the 1994-95 school year.

Completion of an independent group t-Test on the ITBS 1994 data for the students without disabilities in the control and experimental classrooms revealed no significant difference between the two means. The ITBS scores of the experimental classroom students without disabilities were not significantly higher than control classroom students without disabilities.
Table 6

ITBS Means, Standard Deviations, and Mean Differences for Students without Disabilities in the Experimental Classroom

<table>
<thead>
<tr>
<th>Test</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>t</th>
<th>(df)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITBS 1994</td>
<td>101.55</td>
<td>7.05971</td>
<td>-9.45</td>
<td>8.81268</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>ITBS 1995</td>
<td>111.0</td>
<td>8.58395</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The 1994 ITBS data for the nondisabled students revealed no significant difference between the two groups before being presented with the two options of program delivery. Since the p-value for equality of variance was low, (less than 0.05) the unequal variance t-test results were used. The difference in the ITBS scores was not significant at the .05 p-value. Table 7 summaries the ITBS means, standard deviations, and mean differences of the general education students in the experimental and control classrooms for the 1993-94 school year.

Completion of an independent group t-Test on the ITBS 1995 data for the students without disabilities in the control and experimental classrooms revealed a significant difference between the two means. The ITBS scores of the experimental classroom students without disabilities were significantly better than control classroom students without disabilities.
Table 7

ITBS Means, Standard Deviations, and Mean Differences for Students without Disabilities in the Experimental and Control Classroom in 1994

<table>
<thead>
<tr>
<th>Class</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Mean Difference</th>
<th>t</th>
<th>(df)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>106.9167</td>
<td>11.4257</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5.3667</td>
<td>2.35</td>
<td>56.1</td>
<td>0.022</td>
</tr>
<tr>
<td>Experimental</td>
<td>101.55</td>
<td>7.0597</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The 1995 ITBS data for the nondisabled students in the experimental classroom showed a significant difference than those scores of the nondisabled students in the control classroom. The difference in the ITBS scores were statistically significant. $X^2 (N = 66) = 2.95, p < .05$. Table 8 summaries the ITBS means, standard deviations, and mean differences of the general education students in the experimental classrooms for the 1994-95 school year.

Table 8

ITBS Means, Standard Deviations, and Mean Differences for Students without Disabilities in the Experimental and Control Classroom in 1995

<table>
<thead>
<tr>
<th>Class</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Mean Difference</th>
<th>t</th>
<th>(df)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>119.6042</td>
<td>11.783</td>
<td></td>
<td>8.642</td>
<td>2.95</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>Experimental</td>
<td>111.0</td>
<td>8.58395</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Final Report Card Grades of General Education Students

Final report card grades for the general education students also were analyzed to decide validity of question one further. Grades in reading, language, spelling, math, social science, and science were compared for the 1993-94 and 1994-95 school year. Final letter grades in reading, language, spelling, math, social science, and science were converted to a numerical number for each general education student for each report card of the 1993-94 and 1994-95 school year. An A was converted to a four, a B was converted to a three, a C was converted to a two, a D was converted to a one, and an F was converted to a zero. All of the numbers for each of the six subjects were added for each student.

Effect size was employed to compare mean scores on the 1994-95 final report card grades for general education students with students with disabilities fully included in their classroom and general education students without students with disabilities fully included in their classroom. As stated previously, an effect size is a quantitative method of describing how the typical student who received an intervention did relative to the typical student who did not receive the intervention. An effect size of zero would mean that the typical student receiving instruction in the inclusion option did no better or worse than the typical student not receiving the intervention. Positive effect sizes would mean the typical student in an inclusive option did better than the average student not receiving the option. The larger the effect size, the more powerful the intervention. Negative effect sizes would mean that the typical student receiving the inclusion option did not do as well as the typical student who did not receive the option. Researchers consider effect sizes larger than .33 to have practical significance (Borge & Gall, 1989).

A negative effect size of -.2537423 was produced by the final report card grades.
provided by the general education students in the control and experimental classrooms and was not significant. Typical general education students without students with disabilities in their classroom did not do better than the typical general education student with students with disabilities in their classroom. Table 9 summaries the final report grades for students without disabilities.

Table 9

Final Report Card Grades of General Education Students in the Control and Experimental Classes

<table>
<thead>
<tr>
<th>Group (N=)</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental-95</td>
<td>2.37</td>
<td>.878437</td>
<td>-.2537423</td>
</tr>
<tr>
<td>Control-95</td>
<td>2.58</td>
<td>.827611</td>
<td></td>
</tr>
</tbody>
</table>

A negative effect size of -.2693747 was produced by the 1993-94 and 1994-95 final report card grade scores received by the general education students in the experimental group. Therefore, the average general education student did not do better the year the students with disabilities were fully included than they did the year the students with disabilities were not fully included. Table 10 summarizes the final report card grades of the general education students in the experimental class.
Table 10
Final Report Card Grades of General Education Students in the Experimental Classes

<table>
<thead>
<tr>
<th>Group (N=)</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental-95</td>
<td>2.37</td>
<td>.878437</td>
<td>-.2693747</td>
</tr>
<tr>
<td>Experimental-94</td>
<td>2.61</td>
<td>.890952</td>
<td></td>
</tr>
</tbody>
</table>

Staff Survey

Staff questionnaires from the faculty of Elephant's Fork Elementary School contained guided questions that focused on the aspects of the program and academic outcomes of students. Staff members also were requested to give their recommendations and general comments. A sample of the staff survey is shown in Appendix F. The sixty-five staff members given the survey represented the entire administrative, teacher, and teacher assistant staff of Elephant's Fork Elementary School. Fifty-two staff members returned their surveys, providing a return rate of 80%. Staff receiving candy bars, ink pens, and other reinforcers for completing and turning in their survey. Identifying themselves on the survey was not necessary for the staff.

Of those teachers that responded the students without disabilities were affected, the responses were 100% positive. These responses showed feelings by staff that general education students had increased ability in study skills, better organizational skills and more opportunity to receive extra assistance in academic areas of difficulty. No negative effects were mentioned for academic achievements of general education students.

Parent Surveys

Parent questionnaires of students without learning disabilities contained guided
questions that focused on the aspects of the program, behavior of students, academic outcomes of students, parent knowledge of the program, and their recommendations and general comments. A copy of the survey used with parents of students without disabilities is shown in Appendix F. The thirty-five parents of nondisabled students represented the entire parent population of the nondisabled students in the experimental classroom. Thirty-one parents returned their surveys, providing a return rate of 89%.

This high return rate was attributed to the students. Students who were successful in encouraging their parent to return the survey received a free ice cream from the cafeteria. The students displayed a high interest in receiving the coupon for a free ice cream.

Of the 31 parents who returned their survey, 34% were unsure if inclusion was successful for students without disabilities. Ten percent reported it was unsuccessful for students without disabilities. Fifty-six percent reported it was a successful program for students without disabilities.

Of those that responded the students without disabilities were affected, the responses were 63% positive and 15% negative. Eight percent of the responses were mixed and 15% percent of the responses were of a nature that could not be determined negative, positive or mixed. Specific positive comments concerning the effect on academic performance for students without disabilities stated that parents felt the students were studying more alone without help. Students were learning organizational skills that carried over into the home. Specific negative comments were made for separating the student with a learning disability from general education students. These parents felt that the academic needs of students with disabilities slowed the academic progress of general
education students. Concern also was expressed that students with disabilities had more behavior problems than other students.

The parent questionnaires of students with disabilities sample contained guided questions that focused on the aspect of the program. Behaviors of students, academic outcomes of students, parent knowledge of the program, and their recommendations and general comments. The twelve parents given the survey represented the entire parent population of students with disabilities in the experimental classroom. Twelve parents returned their surveys providing a return rate of 100 percent. Students received a colorful coupon for a free ice cream from the cafeteria if they returned the parent survey.

Eighty-nine percent of the parents of students with disabilities knew that their child was included fully in the general education classroom. Sixty-three percent of parents of nondisabled students knew that their child had students with disabilities fully included in a general education classroom. Twenty-two percent of the parents of students with disabilities were unsure if the program had been successful for students without disabilities. Seventy-two percent felt that it was successful for students without disabilities. However, no parent was confident to comment on how exactly general education students were affected academically. Table 11 summarizes the percentages of parental responses.
<table>
<thead>
<tr>
<th>Question</th>
<th>Parents of Students Without Disabilities</th>
<th>Parents of Students With Disabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are you aware that LD students were in the class?</td>
<td>63% 22% 15%</td>
<td>89% 11% 0%</td>
</tr>
<tr>
<td>Is the program successful for students without disabilities?</td>
<td>60% 3% 37%</td>
<td>72% 6% 22%</td>
</tr>
<tr>
<td>Is the program successful for LD students?</td>
<td>55% 10% 34%</td>
<td>83% 6% 11%</td>
</tr>
<tr>
<td>Are you aware of additional staff being in the classroom?</td>
<td>90% 3% 7%</td>
<td>100% 0% 0%</td>
</tr>
<tr>
<td>Should the program continue?</td>
<td>80% 9% 11%</td>
<td>94% 6% 0%</td>
</tr>
</tbody>
</table>

**Student Interviews**

Interviews with the students were conducted individually by an educational diagnostician. Sessions began by developing rapport with the students (e.g., talking about
subjects that student wanted to discuss). Guided questions that focused on the aspects of
the program, behavior of students, academic outcomes of student, and attitudes about the
students with disabilities being in their classroom were asked by the interviewer.
Appendix G includes a sample interview.

Written informed consent was obtained from the parents for the students without
disabilities to be interviewed. All thirty-five nondisabled students participated. Fifty-
seven percent said that students with disabilities were included in their class. Forty-three
percent said either they did not have students with disabilities included in their classroom
or they were not sure if they had students with disabilities included in their classroom.

Students who answered there were students with disabilities in their class were
asked to elaborate on how they knew students with disabilities were in their class. They
provided twenty answers that fell into four categories: 1) students went to some different
classes the year before, 2) students were physically different, 3) staff had told them the
students were different, or 4) action of the students. When asked how many students with
disabilities were in their classrooms, the answers ranged from one to six.

General education students were asked to name the students in the classroom who
had disabilities. Out of fifty-four responses, 65% were correct and 35% were incorrect.
Two students with disabilities were never named. Incorrect responses included students
with at-risk profiles, students with attention deficit hyperactivity disorder (ADHD) not
labeled special education, and students who were extremely quiet or acting out. Each
student with ADHD had a medical record kept by the school nurse that documented a
physician was treating the individual for ADHD.

Ninety-three percent of students interviewed believed having students with
disabilities included in their class was a good idea and 7% felt having them included was not a good idea. All of the positive responses seemed to display empathy, compassion, and support for the students with disabilities. Eighty percent of the students commented that they would like to have the students with disabilities in their class again the next year, while 20% said they were unsure. The response to an opened-ended question resulted in 75% positive comments and 25% percent negative comments about students with disabilities.

An educational diagnostician conducted a one on one interview with each of the twelve students with disabilities. The session began by developing rapport. The interviewer asked guided questions that focused on the aspects of the program, behavior of students, academic outcomes of student, and attitudes about being full time in general education. Students with Disabilities Consent and Interview forms are found in Appendices D and G.

Written informed consent was obtained from the parents for the students without disabilities to be interviewed. All twelve students participated. Eighty-eight percent said that they knew that they were attending general education full time. Eleven percent said that they did not know. Responses to an open-ended question about their nondisabled classmates ended in no comments about academic achievement. All of the comments were of a social nature that will be discussed under question four and question six.

Question Two

Question Two asked: How will the academic achievement of fourth grade students with at-risk profiles be affected given instruction under the inclusion model that integrates students with specific learning disabilities? Both quantitative and qualitative
methodologies were employed. The analysis of the quantitative data was guided by effect size and the analysis of the qualitative data was guided by percentages.

**ITBS**

All students with at-risk profiles were administered the ITBS at the end of the third and fourth grades. The ITBS battery is used to report student progress in learning the basic skills (Hieronymus, Hoover, & Lindquist, 1988). To address question two effect size was employed to compare mean scores on the ITBS for students with at-risk profiles. A full discussion of effect size was provided in question one.

An effect size of .71729774 was produced by the ITBS scores provided by the students with at-risk profiles in the experimental group. Effect sizes larger than .33 have been considered to have practical significance. Therefore, the average student with an at-risk profile did better the year the students with disabilities were fully included than they did the year the students with disabilities were not included fully. Table 12 summarizes the ITBS scores of the students with at-risk profiles in the experimental class.

**Final Report Card Grades of Students with At-Risk Profiles**

Final report card grades for the students with at-risk profiles also were analyzed further to decide validity of Question Two. The final grade in reading, language, spelling, math, social science, and science were compared for the 1993-94 and 1994-95 school year.
Final letter grades in reading, language, spelling, math, social science, and science were converted to a numerical number for each student for each report card of the 1993-94 and 1994-95 school year. A full discussion of the numerical conversion is given in question one. All the numbers for each of the six subjects were added for each student.

To address question two, effect size was employed to compare mean scores on the final grades of the report card. Data revealed that students with an at-risk profile did worse on their report cards when students with disabilities were included full time in their general education classroom than when students with disabilities were not included fully. The effect size was significant at -.9297628. Table 13 summaries the final report card grades for students with at-risk profiles.

Staff Survey

Staff questionnaires from the faculty of Elephant’s Fork Elementary School contained guided questions as described in question one (Appendix F). The entire educational staff was given the survey. Fifty-two staff members returned their surveys, providing a return rate of 80%.
Table 13

Final Report Card Grades for Students with At-risk Profiles

<table>
<thead>
<tr>
<th>Group (N=)</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental-95</td>
<td>1.93</td>
<td>.609818</td>
<td>-.9297628</td>
</tr>
<tr>
<td>Experimental-94</td>
<td>2.51</td>
<td>.623815</td>
<td></td>
</tr>
</tbody>
</table>

Of the fifty-two staff members who returned their survey, 55% were unsure if the students with at-risk profiles were affected by having students with learning disabilities included full time in their general education classroom. Twenty-one percent felt the students were not affected and 23% felt the students were affected.

Of those that responded “yes” the students with at-risk profiles were affected, the responses were 100% positive. These positive responses suggested staff feelings that students with at-risk profiles had increased ability in study skills, better organizational skills and more opportunity to receive extra assistance in academic areas of difficulty. No negative effects were mentioned for academic achievement.

Question Three

Question Three asked: How will the academic achievement of students with learning disabilities be affected given instruction under the inclusion model that integrates them into a general education classroom? Quantitative and qualitative methodologies were employed. Effect size guided the analysis of the quantitative data gathered on the KTEA battery and final report card grades. Percentage guided the analysis of the staff surveys, parent surveys, and student interviews and IEP objectives completed.
**Final Report Card Grades of Students with Disabilities**

Final report card grades for the students with disabilities were analyzed to decide validity of question three. The final grade in reading, language, spelling, math, social science, and science were compared for the 193-94 and 1994-95 school year.

Final letter grades in reading, language, spelling, math, social science and science were converted to a numerical number for each student for each report card of the 1993-94 and 1994-95 school year. An A was converted to a four, a B was converted to a three, a C was converted to a two, a D was converted to a one, and an F was converted to a zero. All of the numbers for each of the six subjects were added for each student.

To address question three, effect size was employed to compare mean scores on the final grades of the report card. Effect size was previously discussed in question one. The effect size of -.8852704 was negatively significant for students with disabilities. The data contained on the 1993-94 and 1994-95 school year for students with disabilities reveals that students with disabilities did worse on their report cards in the year that they were fully included that the year that they were attending special education pull out programs. Table 14 summarizes the final report card grades for students with disabilities.
Table 14

Final Report Card Grades for Students with Disabilities

<table>
<thead>
<tr>
<th>Group (N=)</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental-95</td>
<td>1.88</td>
<td>.696116</td>
<td>-.8852704</td>
</tr>
<tr>
<td>Experimental-94</td>
<td>2.48</td>
<td>.677759</td>
<td></td>
</tr>
</tbody>
</table>

KTEA

Administration of the KTEA was given at the end of the fourth and fifth grade level to all students with disabilities. This battery is used to report student progress in learning the basic skills (Kaufman & Kaufman, 1983; Kaufman & Kaufman, 1985). The KTEA was discussed in the previous chapter and in Appendix B. To address question three effect size was employed to compare mean scores on the KTEA for students with disabilities.

Table 15

KTEA Scores of Students with Disabilities in the Experimental Group

<table>
<thead>
<tr>
<th>Group (N=)</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>4.329</td>
<td>2.159</td>
<td>.769</td>
</tr>
<tr>
<td>Group - 95</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental</td>
<td>2.457</td>
<td>1.024</td>
<td></td>
</tr>
<tr>
<td>Group - 94</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
An effect size of .769 was produced by the KTEA scores provided by the students with disabilities. Effect sizes larger than .33 have been considered to have practical significance. Therefore, the average student with disability did better the year he or she was fully included than the year he or she was not fully included. Table 15 summarizes scores on the KTEA.

**IEP Objectives Completed**

IEPs for the 1993-94 school year and 1994-95 school year were developed and written by the same teacher of the learning disabled. Different teachers taught the students with disabilities for the 1993-94 and 1994-95 school year.

Percentage of IEP goals and objectives mastered for the 1993-94 school year ranged from 1% to 83%. Percentage of IEP goals and objectives mastered for the 1994-95 school year ranged from 17% to 100%.

The Wilcoxon Signed-Ranks Test, a nonparametric test of statistical significance for related samples, was used to compare the percentages of completed IEP goals for the 1994 and 1995 school years. The lowest signed-ranks value, one, was the difference of the negative values. This rank was significant at the .005 level of significance for a one-tailed test. The critical value at that level was 7 for 12 pairs of scores. Since the results of the negative signed-ranks value was the lowest and significant at the .005 level the conclusion was drawn that the percentages of completed IEP goals were significant after the student attended the general education setting with the inclusion option.

**Staff Survey**

Staff questionnaires contained guided questions that focused on the aspects of the program, behavior of students, academic outcomes of students, demands placed on staff,
their recommendations and general comments. Question one fully discussed the staff questionnaire (Appendix F). Sixty-nine percent of the staff members who returned their survey were unsure if the academic outcomes of students with learning disabilities were affected by being included full time in the general education program. None of the staff believed the students with disabilities were not affected, leaving 31% to believe that the students were affected.

Of the staff that felt the students were affected, 56% felt it was a positive experience. Specifically mentioned were the test scores. Staff anticipated that students with disabilities would make higher scores on standardized testing. Forty-four percent felt it was a negative experience. Staff specifically mentioned concerns that inappropriate behavior of the students without disabilities would be encouraged by the general education students and would result in poorer academic performance. Also anticipated by staff was the need for more attention for the students with disabilities than the students could receive in an inclusive setting.

Staff members expressed concerns that there were too many slow learners and students with ADHD included in the classroom. These students had such academic needs that the teaching staff would have to spend less time with the students with disabilities, therefore, affecting the performance of the students with disabilities.

**Parent Surveys**

Parent questionnaires of students without learning disabilities sample contained guided questions that focused on the aspects of the program, academic outcomes of students, parent knowledge of the program, their recommendations and general comments (Appendix F). Of the thirty-one parents who returned their survey, 34% were unsure if
the inclusion program was successful for students with disabilities. Ten percent felt the inclusion program was not successful and 9% felt the program should not be continued. Fifty-five percent felt the option was successful and 88% felt it should continue.

Although most of the parents, were not opposed to the program or the presence of students with disabilities full time in general education. Twenty-three percent of the comments indicated that they felt the student with learning disabilities need lots of attention and may not be getting all of the attention they needed by being in a general education classroom.

Questionnaires for parents of students with disabilities contained similar guided questions as the questionnaires for parents of students without disabilities (Appendix F). Of the twelve parents who returned their survey, 11% were unsure if the inclusion program was successful for their child. 83% did feel their child benefitted. Based on the comments made on the questionnaire parents seemed reluctant to comment on academic progress and success of their child. Most comments were about self-esteem and social adjustment. These comments will be discussed under question six.

**Students Interviews**

Interviews were conducted with students without disabilities individually. The interviewer asked guided questions that focused on the aspects of the program, academic outcomes of students, and attitudes about the students with disabilities being in their classroom (Appendix G). Fifty-seven percent said that students with disabilities were included in their class. Forty-three percent said either they did not have students with disabilities included in their classrooms or they were not sure if they had students with disabilities included in their classroom.
The students noted that they saw academic changes in students with disabilities. Twelve comments were made by the students. Sixty-eight percent mentioned a positive observation and 8% mentioned a negative observation. Twenty-five percent said they could not tell if the students had made any academic changes.

Seventy-five percent of the staff members felt inclusion was academically a good idea for students with disabilities and 1% felt it was not a good idea. All of the positive responses seemed to show empathy, compassion and support for the students with disabilities. Eighty percent of the students commented that they would like to have them in their class again the next year, while 20% said they were unsure. The response to an opened-ended question resulted in 75% positive comments and 25% negative comments about students with disabilities. Guided questions that focused on the aspects of the program, academic outcomes of students, and attitudes about being in general education full time were asked by the diagnostician (Appendix G). All twelve students with disabilities participated in the interviews,

Eighty-eight percent of the staff members said they knew they were in general education full time. Eleven percent said that they did not know. One hundred percent said to attend the general education classroom, like the other students, was a good idea. Sixty-seven percent said that they had learned from being in their teacher’s classroom and 33% said they were not sure or they had not learned anything from being included. Of those that said “yes” they had learned something, 100% made positive comments about academic progress.
Question Four

Question Four asked: How will the behavior of general education fourth grade students of average ability be affected given instruction under the inclusion model that integrates students with specific learning disabilities? Quantitative and qualitative methodologies were employed.

General Education Student Referrals to Principal

Data were compiled on referrals to principals, number of days of suspension, and administrative hearings. Raw scores and percentages of behavior contacts for students (control and experimental classrooms) were identified for each class separately. A percentage of general education students within the control and experimental classrooms was determined by dividing the actual number of behavior contacts per category by the actual number of students in each classroom (e.g., referrals/general education students in control classrooms).

General education students in the control classrooms had students with disabilities in their classroom during the 1993-94 school year. This was the year before the inclusion option began. Students with disabilities were receiving resource pull out services. They were in the general education classroom less than 50 percent of the time. This was a traditional pull out model of delivery of special education services.

Students in the control classroom during the 1994-95 school year had no students with disabilities or students with at-risk profiles. All these students were in the experimental classrooms during the 1994-95 school year.

A general education student in the control group averaged .31 referrals to principals for inappropriate behavior during the 1993-94 school year. These referrals
resulted in a total of thirty days of suspension and no administrative hearings. The infractions ranged from being too playful in class, being disrespectful to the teacher, using inappropriate language to another student or a teacher, cursing, not following directions and hitting and fighting.

The general education student in the control group averaged .52 referrals to the principal for inappropriate behavior during the 1994-95 school year. These referrals resulted in a total of forty-four days of suspension and administrative hearing. The infractions ranged from being disrespectful to the teacher, using inappropriate language to another student or a teacher, cursing, not following directions and hitting and fighting. Additional infractions received during the 1994-95 school year that were not included in the 1993-94 school year were inappropriate touching of other students, intimidation of teachers, being a significant disruptive force in the classroom, pushing and shoving other students, throwing objects at other students and at a teacher, and other forms of aggression to other students.

This data reflects an increase in the number referrals from the 1993-94 school year. An increase in the total number days of suspensions and administrative hearings also was observed. Data appear to reflect an increase in the frequency and severity of the infractions. For example, during the 1993-94 school year three referrals were written for being disrespectful to the teacher and one for not following instructions. For the 1994-95 school year five referrals were written for being disrespectful to a teacher, four referrals for being uncooperative and not following instructions, one referral for attempting to intimidate a teacher and one for inappropriate language to a teacher.

The students in the experimental group during the 1993-94 school year were in a
traditional model of pull out services for the students with disabilities in their classroom. During the 1994-95 school year the experimental classroom was made up of general education students, students with disabilities, and students with at-risk profiles.

General education students in the experimental group averaged .30 referrals to principal for inappropriate behavior during the 1994 school year. These referrals resulted in a total of twelve days of suspension and no administrative hearings. The infractions ranged from inappropriate language with other students and a teacher, not following a teacher’s instructions, being a significant disruptive force in the classroom, being disrespectful to a teacher, cursing, leaving the classroom without permission, fighting and hitting, and other forms of aggression toward other students.

These same students averaged .15 referrals to principal during the 1994-95 school year, an experimental year. These referrals resulted in a total of eight days of suspension and no administrative hearings. The infractions ranged from inappropriate language with other students, not following a teacher’s instructions, being a significant disruptive force in the classroom, being disrespectful to a teacher, and fighting.

This data reflects a decrease in referrals from the 1993-94 to the 1994-95 school year. A decrease in the total number days of suspensions also was observed from 1993-94 to the 1994-95. This data reflects an increase in the number of referrals and suspensions from the 1993-94 to the 1994-95 school year for the control classes.

Staff Survey

Staff questionnaires from the faculty of Elephant’s Fork Elementary School contained guided questions that focused on the aspects of the program, behavior of students, their recommendations and general comments (Appendix F). Of the fifty-two
staff members who returned their survey. 31% were unsure if the students without disabilities were affected by having students with learning disabilities fully included in their general education classroom. Thirty-eight percent felt that the students without disabilities were not affected and 31% felt that the students without disabilities were affected.

Of those that responded that the students without disabilities were affected behaviorally, 60% felt the students had been affected positively. Students without disabilities were learning skills in helping others, working cooperatively with peers, and learning not to draw attention to differences of other. Forty percent of the staff felt the students had been negatively affected. They felt the students were more frustrated and displayed behavior problems because of the inclusion program.

Parent Surveys

Parent questionnaires of parents of students without disabilities contained guideline questions that focused on the aspects of the program, behavior of students, parent knowledge of the program, their recommendations and general comments (Appendix F).

Of the thirty-one parents who returned their survey, 11% were unsure if their child had been behaviorally harmed in any way by the program. Seventy-seven percent felt it had not harmed their child. However, 64% did not feel it had any effects beyond class time. Forty-six percent felt that the program had been positive behaviorally on their child. Interaction with students with disabilities was viewed as good for their child because they learned about different kinds of people. Parents of nondisabled students also mentioned that just because these children are disabled does not mean they are not fun associates of their child.
Parents of students with disabilities seemed unwilling to comment on the effects of inclusion on general education students. No parent commented on how they felt the general education student was behaviorally affected. A sample of the parent survey is in Appendix F.

**Student Interviews**

Individual interviews were conducted with students without disabilities. The session began by developing rapport with the students. The interviewer asked guided questions that focused on the aspect of the program, behavior of the students and attitudes about the students with disabilities being in their classroom (Appendix G). Fifty-seven percent said the students with disabilities were included in their class. Forty-three percent said either they did not have students with disabilities included in their classroom or they were not sure if they had students with disabilities included in their classroom.

Ninety-three percent felt behaviorally it was a good idea to have the students in their class and 7% felt behaviorally it was not a good idea to have the students in their class. All of the positive responses seemed to display empathy, compassion and support for the students with disabilities academically. Eighty percent of the students commented that they would like to have them in their class again the next year, while 20% said they were unsure. The response to an open-ended question resulted in 75% positive comments and 25% percent negative comments about students with disabilities.

Responses to an open-ended question about their nondisabled classmates ended in 80% percent negative comments about the behavior of nondisabled students. They commented generically about how the general education students call their classmates names, are mean and are bossy. Only, 20% commented that the general education
students were pleasant to be around. Appendix G contains a copy of the interview questions.

Question Five

Question Five asked: How will the behavior of at-risk fourth grade students be affected given instruction under the inclusion model that integrates students with specific learning disabilities? Both quantitative and qualitative methodologies were employed.

Students with At-Risk Profiles Referrals to Principal

Students with at-risk profiles were in the experimental group during the 1993-94 school year were in a general education classroom with a traditional model of pull out services for the students with disabilities in their classroom. During the 1994-95 school year the experimental classroom was made up of general education students, students with disabilities, and students with at-risk profiles with an inclusion option.

Students with at-risk profiles received .73 referrals per student during the 1993-94 school year. These referrals resulted in a total of thirty-two suspensions days. Infractions ranged from intimidating other students, not following the directions of a teacher, hitting and fighting with other students and other forms of aggression toward other students.

These same students received .40 referrals per student during the 1995 school year, an experimental year. These referrals resulted in a total of fifteen suspension days. Infractions ranged from disrespectfulness to a teacher, not following the directions of a teacher, hitting and fighting, and other forms of aggression toward other students.

This data reflects a decrease in the number referrals from the 1993-94 school year. A decrease in the total number days of suspensions was also observed from 1993-94 to 1994-95.
Question Six

Question six asked: How will the appropriate behavior of students with learning disabilities be affected given instruction under the inclusion option that integrates them into a general education classroom? Both quantitative and qualitative methodologies were employed.

Students with Disabilities Referrals to Principal

Students with disabilities during the 1993-94 school year were in a general education classroom with a traditional model of pull out services for the students with disabilities in need of resource services. Resource services are those special education services required 49 percent of the day or less. Self-contained settings were provided for students with disabilities who were in need of more than 50 percent. During the 1994-95 school year the experimental classroom was made up of general education students, students with disabilities, and students with at-risk profiles with an inclusion option.

During the 1993-94 school year, students with disabilities received .17 referrals per student. These referrals to the principal for inappropriate behavior resulted in a total of five suspension days. The infractions were fighting and other forms of aggression toward other students. These same students had an average of .08 referrals per student for the 1995 school year, an experimental year. These referrals resulted in a total of two suspension days. Infractions were fighting.

This data reflects a decrease in the number referrals from the 1993-94 school year. A decrease in the total number days of suspensions was also observed from 1993-94 to 1994-95.
Staff Survey

Staff questionnaires from the faculty of Elephant's Fork elementary School contained guided questions that focused on the aspects of the program, behavior of students, their recommendations and general comment (Appendix F). The sixty-five staff members given the survey represented the entire administrative, teacher, teacher assistant staff of Elephant's Fork Elementary School. Fifty-two staff members returned their surveys, providing a return rate of 80 percent.

Of the fifty-two staff members who returned their survey, 9% was unsure if the behavior of students with disabilities were affected by being included full time in the general education program. Eighteen percent of the staff felt the students with disabilities were not affected. Seventy-three percent felt the students with disabilities were affected behaviorally.

Of the 73% of the staff who felt the students were affected, 77% felt attending general education was a positive experience. Areas mentioned were the development of cooperation, appropriate behavior, self-esteem, friendships, ability to accept constructive criticism, organizational skills and taking responsibility. The staff specifically mentioned that they had concerns that the inappropriate behaviors of the students with disabilities were encouraged by the general education students. It also was felt that students with disabilities needed more attention that they could receive in an inclusive setting, therefore, resulting in frustration and disruptive behavior.

Parent Surveys

Parent questionnaires of parents of students without disabilities contained guided questions that focused on the aspects of the program, behavior of students, academic
outcomes of students, parent knowledge of the program, parent recommendations and
genral comments. The thirty-five parents given the survey represented the entire parent
population of students without disabilities in the experimental classrooms. Thirty-one
parents returned their surveys, providing a return rate of 89%.

Of the thirty-one parents who returned their survey, 46% of the comments
represented a feeling that the students with disabilities should have an opportunity to
interact with students without disabilities. They were concerned that the students might
feel resentment when things come easier to others and when they may receive fewer
rewards because they are unable to achieve in the same manner.

Questionnaires for parents of students with disabilities contained guided questions
that focused on the aspects of the program, behavior of students, parent knowledge of the
program, their recommendations and comments. The twelve parents given the survey
represented the entire parent population of students with disabilities attending the
experimental classrooms. Twelve parents returned their surveys, providing a return rate
of 100 percent. Of the twelve parents who returned their survey, 50% seemed to feel that
their students with disabilities were less frustrated, happier, and had higher self-esteem
than in previous school years without inclusion. An equal percentage felt that their
students with disabilities were more frustrated, less happier, and had lower self-esteem.

The parents of students with a learning disability commented on how their child
did not feel as if he had a learning problem when he was included in general education.
Elaborate comments were made by parents on how the students enjoyed schools, told
stories at home that reflected a higher comfort level and more enjoyment at being in
school. Some parents stated that their child was less anxious and wanted to go to school.
However, equal numbers of comments were made by parents of students feeling they were not understanding their assignments and teachers were not able to help them when they needed assistance. Comments were made about children being physically and emotionally hurt and picked on much of the school day.

**Student Interviews**

Interviews were conducted with students individually by an educational diagnostician. The session began by developing rapport. The interviewer asked guided questions that focused on the aspects of the program, behavior of students, and attitudes about the students with disabilities being in their classroom.

Written informed consent was obtained from the guardian/parent for the student without disabilities to be interviewed. Appendix D and G have copies of the consent forms and interview forms. All thirty-five nondisabled students participated. Fifty-seven percent said that students with disabilities were included in their class. Forty-three percent said either they did not have students with disabilities included in their classroom or they were not sure if they had students with disabilities included in their classroom.

When those students said yes were asked to elaborate on how they knew they gave twenty comments that fell into four categories: 1) the students went to some different classes the year before; 2) The students were physically different; 3) The teacher or other staff had told them the students were different, or 4) By the actions of the students.

When asked how many students with disabilities were in their classroom the answers ranged from one to six.

The students were asked to name the students in the classroom who had disabilities. Out of the fifty-four guesses, 65% were correct guesses and 35% were
incorrect guesses. Two students with disabilities were never named. Incorrect responses included students with at-risk profiles, students with ADHD not labeled special education, and students who were extremely quite or acting out. Seventy-five percent felt it was a good idea to have the students in their classroom and 1% felt it was not a good idea to have the students in their class. All of the positive responses seemed to show empathy, compassion and support for the students with disabilities. Eighty percent of the students commented that they would like to have them in their class again next year, while 20% said they were unsure. Response to an opened ended question resulted in 75% positive comments and 25% negative comments about students with disabilities.

Students noted that they saw behavior changes in students with disabilities. Sixteen comments were made by the students. Sixty-nine percent mentioned a positive observation and 6% mentioned a negative observation. Nineteen percent said they could not tell if the students had made any behavioral changes. One percent of the responses could not be interpreted.

Earlier in the discussion of data collected for question one, students without disabilities made 35% incorrect responses when asked to name the students in the classroom who had disabilities. Incorrect responses included students with at-risk profiles, students with ADHD not labeled special education, and students who were extremely quite or acting out.

An educational diagnostician conducted a one on one interview with each of the twelve students with disabilities. Guided questions were asked by the interviewer that focused on the aspects of the program, behavior of the students, and attitudes about being in general education full time (Appendix G).
Written informed consent was obtained from the parents for the students without disabilities to be interviewed (Appendix D). All twelve students participated. Eighty-eight percent said that they knew they were in general education full time. Eleven percent aid that they did not know. One hundred percent said to be fully included in the general education classroom was a good idea. No specific comments about improvement in their own behavior were given.

When asked to give specific names of students in their classroom with whom they were friends. Twenty-five responses were given. Forty percent of the responses indicated names of a general education student, 32% were names of students with at-risk profiles, and 24% were other students with disabilities. Four percent could not be interpreted.

Time Logs

The inclusion team completed periodic time logs, one before the program began and one during each six weeks. This was done as a means to exercise experimental control over the instructional arrangements to which all students were exposed. Data collected were analyzed for trends. A time log was developed to identify the activities the teachers engaged in throughout the day. An example of a time log can be found in Appendix H.

The time logs completed before the program began reveals that the inclusion team anticipated having approximately thirty minutes a day for individual professional planning. Two hours and a half to four hours and forty-five minutes a day were anticipated in direct teaching of students by the inclusion team. Forty-five minutes a day for miscellaneous school duties was anticipated by both the general education teachers. Forty-five minutes to an hour a day for meeting with other school professionals was anticipated by both the
general education and special education teachers. None of the teachers or the assistant anticipated any time for meeting with parents. Only the special education teacher anticipated fifteen minutes a day for miscellaneous paperwork. Four hours and forty-five minutes a day for monitoring students as they worked independently was anticipated by the special education teacher assistant. One general education teacher anticipated two hours a day of monitoring students as they worked independently a day. No one expected to spend any time evaluating students or changing the physical environment of the classroom. One general education teacher anticipated fifteen minutes a day intervening in inappropriate student behavior. No one expected to spend any time completing referral paperwork. All staff anticipated getting fifteen to thirty minutes for lunch each day.

One day each six weeks was randomly chosen by the research for the inclusion team to complete a task log at the end of the day. The task logs completed after the program began revealed that each teacher averaged nineteen minutes a day in individual professional planning, a difference of eleven minutes less than anticipated. Each teacher averaged close to three hours a day in direct teaching of students, falling within the range of anticipation by the teachers. Each teacher averaged thirty-six minutes of miscellaneous school duties a day, this was nine minutes less than the general education teachers had anticipated. More than three minutes and a half were spent a day per teacher meeting with parents. Twenty-three minutes were spent a day in miscellaneous paperwork by each teacher. Only the special education teacher had anticipated fifteen minutes a day. The special education teacher assistant had anticipated four hours and forty-five minutes a day in monitoring students as they worked independently. She averaged two hours and forty-
six minutes a day. Both general education teachers had anticipated two hours a day in monitoring students. Each teacher averaged one hour and thirty-nine minutes a day in monitoring students. Each teacher averaged twenty minutes a day in the evaluation of students. No teachers anticipated any time in evaluating students. Less than three minutes a day was spent on the physical environment of the classroom. Teachers had anticipated no time for physical environment. Less than one minute per day was spent on intervening in inappropriate student behavior by each teacher. None of the staff had anticipated spending any time on intervening in inappropriate student behavior. No time had been anticipated or used to complete referral paperwork by any staff. Each teacher averaged twenty-three minutes a day for lunch.

Observations

A second means to exercise experimental control over the instructional arrangements was the use of a trained observer who was not familiar with the exact nature of the study. These observations occurred five times per teacher and averaged one hour and a half to two hours in length. Times for observations were staggered throughout the school day. Each teacher received no notice of the observations in advance. The observations did not occur on days that the teachers were keeping a time log.

Each teacher averaged ten minutes a day in individual professional planning time. Two hours and twenty-five minutes per teacher were displayed in direct teaching of students. Twenty-five minutes a day were used for miscellaneous school duties by each teacher. Teachers were observed to spend fifty-five minutes a day to meet with other school professionals and ten minutes a day to meet with parents. Ten minutes a day was observed to be spent in miscellaneous paperwork per teacher. One hour and forty-five
minutes a day were spent in monitoring students as they worked independently. Thirty-five minutes a day per teacher was observed in evaluating student performance. No time was spent in changing the physical environment of the classroom or completing referral paperwork. Five minutes a day per teacher was observed in intervening in inappropriate student behaviors. Each teacher was observed to get fifteen minutes for lunch a day.

The teacher assistant was observed spending one hour and forty-five minutes a day on direct teaching of students, while one hour a day was spent on miscellaneous school duties. Sixty minutes was spent a day meeting with other school professionals. One hour and thirty minutes a day were spent on monitoring students as they worked independently and one hour a day was spent on evaluating students. Fifteen minutes a day was spent on changing the physical environment of the classroom. The teacher assistant had a thirty minute lunch break. Table 16 compares the time logs and observations of the inclusion team.
Table 16

Comparison of Task Logs and Observations of Inclusion Teachers

<table>
<thead>
<tr>
<th>Activities</th>
<th>Anticipated Time Logs # Minutes</th>
<th>Completed Time Logs Average Minutes</th>
<th>Observations # Minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning</td>
<td>30</td>
<td>19</td>
<td>10</td>
</tr>
<tr>
<td>Teaching</td>
<td>150 - 285</td>
<td>180</td>
<td>145</td>
</tr>
<tr>
<td>Misc. Duties</td>
<td>45*</td>
<td>36</td>
<td>25</td>
</tr>
<tr>
<td>Meeting with Staff</td>
<td>45 - 60</td>
<td>54</td>
<td>55</td>
</tr>
<tr>
<td>Meeting with Parents</td>
<td>0</td>
<td>3.5</td>
<td>10</td>
</tr>
<tr>
<td>Misc. Paperwork</td>
<td>15**</td>
<td>23</td>
<td>10</td>
</tr>
<tr>
<td>Monitoring</td>
<td>120**</td>
<td>100</td>
<td>105</td>
</tr>
<tr>
<td>Students</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluating</td>
<td>0</td>
<td>20</td>
<td>35</td>
</tr>
<tr>
<td>Students</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Changing</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Classroom</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intervening in Behavior</td>
<td>15***</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Paperwork</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lunch</td>
<td>15-30</td>
<td>23</td>
<td>15</td>
</tr>
</tbody>
</table>

* general education teachers only  ** a special education teacher only  *** a general education teacher only

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Summary

This chapter presented the quantitative and qualitative findings of the study. Qualitative methodology analyzed the perceived effects of inclusion by staff, parents, and students. The use of these techniques gave the researcher theoretical sensitivity necessary to see and interpret the relationships between the main ideas of this study. Quantitative methodology provided the basic research evidence. The standardized data for significant changes that resulted from the inclusion option of instruction was analyzed by quantitative methods.

Four major findings emerged from the study of how students without disabilities were affected by the inclusion of students with disabilities in their fourth grade general education classroom. First, qualitative data revealed few negative beliefs about the inclusion program. However, the program did not receive strong positive support. Seventy-three percent were unsure if the inclusion program was successful and 62% were unsure if the inclusion program should continue. Twenty-six percent reported the program was successful and 38% believed that the program should continue. Only 1% of the fifty-two staff members felt the inclusion program was not successful and should be ended.

Of the thirty-one parents of students without disabilities who returned their survey, 10% felt the inclusion program was unsuccessful and 34% were unsure if the inclusion program was successful. Fifty-six percent felt the program was successful. Of the twelve parents of students with disabilities who returned their survey, 6% reported the inclusion program was unsuccessful and 22% were unsure if the inclusion program was successful. Seventy-two percent reported the program was successful.
The negative feelings voiced by staff members and students about the success of the program could be traced back to nondisabled students. Frequently, when specific special education students were named, they were not students with learning disabilities. Students who were called disabled were usually students with at-risk profiles or students with ADHD not identified as disabled, or students who were behaviorally maladjusted. Students with disabilities were blamed frequently for things that the nondisabled students were doing/not doing.

Second, qualitative data revealed that staff concerns about inclusion were usually about general concerns or problems that were present before the inclusion program was introduced. For example, fifteen staff comments were concerning what was viewed as the most difficult aspect of the program. Twenty-seven percent of the fifteen comments felt that working closely with another adult must be the most difficult aspect. Twenty percent felt that the total number of general and special education students in the program was the most difficult aspect. Twenty percent felt that discipline and classroom management was the most difficult. Twelve percent felt that the diversity of problems, besides the special education students was the most difficult. One percent felt that keeping the staff in the classroom would be difficult. Specific recommendations given by staff and parents referred to a need for smaller class sizes and the interference of inappropriate behavior of nondisabled students.

Third, the students with disabilities seemed realistic about their academic expectations. They viewed being in general education full time as harder than being in general education part time with special education services being a pull out program. Nevertheless, the students with disabilities clearly preferred having the opportunity to be
with their peers full time. It also was recognized by the students with disabilities that the
general education students were frequently cruel to them about their academic
performance. However, they also mentioned that general education students were cruel to
general education students, as well.

Fourth, quantitative data showed that general education students did do better
with students with disabilities included full time in their classroom. The general education
students in the control and experimental classrooms made significant gains on their
standardized test scores. Students with at-risk profiles did do better on the ITBS with
students with disabilities included full time in their classroom. They did not do better on
their report card grades. In addition, students with disabilities did better on KTEA, but
did worse on their report cards.

The research data reported here have shown that the qualitative findings support
the quantitative findings. The neutral and positive feelings that the parents, staff, and
students were having are supported by positive gains of the students.

The discussion of the analyses and recommendations are given in Chapter V. Also
discussed are the implications of the study for reform in education, along with suggestions
for teachers, administrators, and LEAs. Suggestions for further research are included as
well.
CHAPTER V
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The use of inclusion is moving forward, based largely on philosophical beliefs rather than empirical data (Minke, Bear, Deemer, & Griffin, 1996; Vaughn & Schuur, 1995). Programs often are being implemented without benefit of sufficient attention to general education student outcomes (Bilken, Corrigan, & Quick, 1989; Cosden, Pearl, & Byran, 1985; Hock & Rogers, 1994; Peck, Donaldson, & Pezzoli, 1990). Some authorities have questioned the appropriateness of segregating students with disabilities from their nondisabled peers and believe that students with disabilities do better behaviorally and academically in integrated programs (Cannon, Idol, & West, 1992; Deno, Maruyama, Espin, & Cohen, 1990; Dunn, 1968; Fuchs & Fuchs, 1994; Goodlad & Lovitt, 1993; Goor & Schwenn, 1993). Previous research has shown that students with mild disabilities and all other students educated in general education, benefit from similar, effective instructional practices (Cannon et al., 1992; Goor & Schwenn, 1993). Deno et al. (1990) and Goodlad and Lovitt (1993) wrote that students with disabilities do better both behaviorally and academically in integrated programs.

The rationale for this study lay in the need for research on the effects of educating students with disabilities in the general education classroom on urban elementary general education students. The significance of this study is shown by the limited available research, inconsistency in the definitions of including students with disabilities in general education, and varying opinions of educators and parents on the effects of and need for educating students with disabilities in general education classrooms (Hunt & Goetz,
An exploration of the effects of inclusion on students without disabilities who had students with disabilities included full-time in their general education classroom was undertaken to provide insight into the academic and behavioral impact. Results of this study contributed to the validation that general education students and students with at-risk profiles did do better academically with students with disabilities included full time in their classroom. Qualitative data revealed there were few negative beliefs about the effect of inclusion on the general education student. However, the program did not receive strong positive support. Positive gains of the students support the neutral and positive feelings that the parents, staff, and students were having.

This study differs from other investigations of inclusion in several ways. First, studies most have often been conducted to decide the effects on students with disabilities rather than the effects on students without disabilities (Cosden et al., 1985; Biklen et al., 1989; Hunt & Goetz, 1997). This study assessed the standardized tests, final report card grades and discipline referrals of the general education student and the student with disabilities. Second, this study assessed the attitudes and perspectives of inclusion by general and special education staff, parents of general and special education students, and general education students and students with disabilities. Third, this study assessed the standardized tests, final report card grades and discipline referrals of students with at-risk profiles who had students with disabilities included full time in their general education classroom.

To achieve these purposes, data were collected for this study by using the 1993-94 and 1994-95 ITBS of the general education students and students with at-risk profiles.
1993-94 and 1994-95 KTEA of the students with disabilities, completed goals and objectives on the 1993-94 and 1994-95 IEPs of the students with disabilities, 1993-94 and 1994-95 final report card grades for all students, 1993-94 and 1994-95 referrals to principal for inappropriate behavior for all students. Additional data was collected with staff and parent surveys, and student interviews. Effect size, t-Test, percentages and chi-square were the primary data analysis techniques employed in this study. The effect size, a quantitative method of describing how the typical student who received instruction in the inclusion option did compare with typical students, who did not receive instruction in the inclusion option.

Investigation of the major research question resulted in the identification and study of six subsidiary research questions as to the effects of inclusion on the academic and behavioral performances of students without disabilities. Results of this study suggest that the use of inclusion does not negatively affect general education students. Their academic performance was affected significantly in a positive direction by the presence of students with disabilities full time in their general education classroom. For example, their standardized test scores showed significant gain during the experimental school year. They did not do well on their report cards, but neither did the control group during the same school year. Furthermore, their behavior may not be affected significantly by the presence of students with disabilities.

Results showed that the presence of students with disabilities may affect students with at-risk profiles positively. Their standardized ITBS test scores improved significantly and their referrals to the principal for acting out decreased significantly. It must be noted that their report card grades did not improve significantly. Staff mentioned no negative
effects on academic achievement. Staff comments suggested that students with at-risk profiles had increased ability in study skills, better organizational skills and more opportunity to receive extra assistance in academic areas of difficulty.

The findings presented in chapter IV suggest that staff, parents, and students did not have significant negative feelings about students with disabilities being fully included in general education. Only 1% of the staff members felt the inclusion program was not successful and should be discontinued. Of the parents of students without disabilities who returned their survey, 10% felt the inclusion program was unsuccessful. Moreover, the findings suggest that the staff, parent and student opinions were either positive or unsure about the effects on academic achievement and behavior of students. Seventy-three percent of the staff was unsure if the inclusion program was successful and 26 percent reported the program was successful. Thirty-four percent of the parents of nondisabled students were unsure if the inclusion program was successful and 56 percent believed inclusion was successful.

When staff and students were asked to name students with disabilities by name, students without disabilities were confused frequently with students with disabilities. The implication from the findings is that care must be taken to limit the number of students with academic and behavioral difficulties in an inclusion option.

Limitations

A major limitation of this study is that the qualitative research is dependent on the staff, parents, and students to be candid and forthright. I hope by providing anonymity for the respondents a true picture of instruction in the course would emerge. A further limitation was that although the return rates on the questionnaires were acceptable, it is
unknown whether teachers who are more or less positively disposed toward the option responded in different proportions.

Another limitation was the limited scope of the study. A single urban elementary school from one local educational agency was examined by the study. Only those elementary teachers using a collaborative teaching method in an inclusion model were represented. Students with disabilities followed in this study presented identified, specific learning disabilities only.

The setting did not permit random assignment of subjects or teachers. The experimental and control group comprised students whose placement was determined by the building administration. Despite the participation of all fourth grade students, it is possible that the subjects in the experimental group—because they were placed by administration—possess different traits from the subjects in the control groups. Finally, the present data were collected in a single school district that used a specific model of inclusion. This is not a full inclusion model. Rather, it provides a co-teaching setting for students with mild disabilities only. Thus, generalization of the findings to other settings may be limited. Still, the data generate insight into the attitudes of teachers, parents and students on the effects of and need for educating students with disabilities in general education classroom.

A significant strength of this study was in the use of triangulation, collecting data by more than one method. In the literature the term triangulation means the combination of methods or sources of data in a single study (Denzin, 1978; Patton, 1980; Taylor & Bogdan, 1984). Triangulation is often thought of as a way of guarding against researcher bias and checking out accounts from different informants. By drawing on other types and
sources of data, observers also gain a deeper and cleaner understanding of the setting and people being studied (Taylor & Bogdan, 1984).

Both quantitative and qualitative methodologies were employed to analyze the research data. Quantitative methods were used to keep from influencing the collection of data. Quantitative methods were used to interpret and give meaning to the results found in the quantitative methods.

Conclusions

This study confirms much of the literature that inclusion should be one of many options for service delivery (Fuchs & Fuchs, 1994; Kauffman, 1993; Kauffman, Gerber, & Semmuel, 1988). Inclusion should be an IEP committee decision for each individual student with a disability. Although the classes studied are not fully inclusive, they do contain many elements considered important for a successful inclusion model. That is, personnel from special education are integrated fully into the mainstream. The services of the special education staff are available to all students, not just those identified as requiring special education. Paraprofessional help, specialized instruction, and specific behavior management plans are used (Walther-Thomas & Carter, 1992).

The suggested improvements in the experimental model made by these teachers (e.g., greater attention to class composition and size, adherence to the model as intended, and more inservice training) show the need for great vigilance in implementation and continuous evaluation of results. Both supporters and opponents of inclusion efforts acknowledge that successful inclusion requires adequate training, support and assistance to teachers (Gable, Arllen, Bailey, & Hendrickson, 1994; Reynolds, Wang, & Walberg, 1987; Stainback & Stainback, 1984; Stainback & Stainback, 1991).
These findings are consistent with other studies showing that teachers’ attitudes toward inclusion of children with mild disabilities may be more positive than is commonly believed (Davis & Maheady, 1991). Further, they are consistent with studies investigating inclusion of students with disabilities showing that positive teacher attitudes are enhanced in the presence of sufficient resource support (Janney, Snell, Beers, & Raynes, 1995; Wolery, Werts, Cadwell, Snyder, & Lisowski, 1995).

These teachers’ views regarding inclusion were consistent to those in other recent surveys (Houck & Rogers, 1994; Janney et al., 1995; Vaughn & Schuem, 1995; Wolery et al., 1995), that is, teachers clearly viewed allocation of resources as a critical factor for effective inclusion. Successful classes were described as having adequately trained teachers with sufficient instructional aide time to fully individualize instruction. Teachers reported a need for more space, and planning time, and smaller class sizes. In part, dissatisfaction appeared related to the fear that inclusive classes are used as “dumping ground” for all children experiencing difficulties, despite their special education status and level of need. Teachers believed that a disproportionate number of students with learning and behavioral problems were assigned to the experimental classes. In this research, only children with mild disabilities were placed in integrated classes.

Recommendations

Three suggestions are offered that would increase the likelihood of successful inclusion options for general education students. First, great care and planning must occur to insure that all decisions must be made on an individual basis for students with disabilities. No one instruction delivery model will work for all students, a continuum of options is necessary to assure the provision of an appropriate education for all students.
with disabilities.

Second, preservice and inservice for staff and parents are needed to overcome misconceptions. The negative feelings voiced by staff members and students about the success of the program could be traced back to nondisabled students. When specific special education students were named on the student interview or parent and staff questionnaires, they were not students with learning disabilities. Usually, students with at-risk profiles or students with ADHD not identified as disabled or students who were socially maladjusted were named. Students with disabilities were blamed for the acting out of nondisabled students.

Third, inclusion of students with disabilities in general education classrooms does heighten the awareness of student differences. The students with disabilities seemed realistic about their academic expectations. They found being in the general education environment full time was harder than being in general education part time with special education services being a pull out program. It also was evidenced that the students with disabilities clearly preferred having the opportunity to be with their peers. The students with disabilities felt the general education students were frequently cruel to them about their academic performance.

The results of this study suggest that unexplored dimensions to the issue of inclusion exist. Further research is needed on the effects of inclusion on the education of students to balance important theory with pragmatic considerations of the day-to-day operation of a classroom. It is hoped that the findings of this study will serve as a catalyst for further research.

What is needed in special education is not a retreat from the basic principles that
support a continuum of services for students with disabilities, but rather a renewed
commitment to the thoughtful deployment of these ideas. Attention needs to be given to
the least restrictive environment, including a shared philosophy and commitment by
general and special educators will ensure that a variety of learning opportunities across
educational setting exist for all students. Use of technically adequate indicators of student
growth, when linked to evaluating instructional interventions, guarantees that effective
programs are used for students. Finally, IEPs that identify the unique needs of students,
specify appropriate instructional strategies that meet these needs, set realistic educational
goals for the students, and are adjusted in response to empirical analysis, create an
educational environment that significantly improves student achievement.
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APPENDIX A

Iowa Tests of Basic Skills Multilevel Battery

ITBS

Specific purposes that the Iowa Tests of Basic Skills Multilevel Battery (ITBS) serves:

1. To determine the developmental level of each student to adapt materials and instructional procedures more precisely to individual needs and abilities;

2. To diagnose specific qualitative strengths and weaknesses in a student’s educational development;

3. To indicate the extent to which individual students have the specific readiness skills and abilities needed to begin instruction or to proceed to the next step in a planned instructional sequence;

4. To provide information useful in making administrative decisions in programming to accommodate individual differences;

5. To diagnose strengths and weaknesses in a group performance which have implications for change in curriculum or instruction procedure or emphasis; and

6. To report progress in learning the basic skills to parents in objective, meaningful terms (Hieronymus, Hoover, & Lindquist, 1988).
APPENDIX B

Kaufman Test of Educational Achievement

The Kaufman Test of Educational Achievement (KTEA) is an individually administered measure of the school achievement of children and adolescents in grades 1 through 12. It offers age-based norms (6 years 0 months to 18 years 11 months) as well as grade-based norms, and comprises two separate and non-overlapping forms: A Brief Form that offers reliable standard scores in the global areas of Reading, Mathematics, and Spelling, and a Comprehensive form that provides reliable scores in the more specific domains of Reading Decoding, Reading comprehension, Mathematics applications, Mathematics Computation, and Spelling. Both forms offer norm-referenced assessment in the analysis of students’ errors in the various content areas.

In addition to the separate subtest scores, the Brief Form offers a highly reliable Battery Composite, and the Comprehensive form yields highly reliable scores in the following global areas:

1. Reading Composite
2. Mathematics Composite
3. Battery Composite

All standard scores provided by the two KTEA forms have a mean set at 100 and standard deviation set at 15 to facilitate comparisons with intelligence quotations (IQS) and standard scores yielded by intelligence tests such as the Wechsler Intelligence Scale for Children-Revised (WISC-R) and the Kaufman Assessment Battery for Children (K-ABC, Kaufman & Kaufman, 1983), and with standard scores offered by other tests of school achievement (Kaufman & Kaufman, 1985).

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APPENDIX C

Letters of Explanation
Dear Staff of Elephant's Fork Elementary School:

Last year, Suffolk Public Schools gave me permission to study the pilot inclusion program. In this program students with learning disabilities were included full-time in certain general education classrooms. The special education teacher and teacher assistant were in the classroom with the students offering assistance to all students. It is important to know if the program had a positive effect on the students with learning disabilities, as well as the other general education students.

I am interested in knowing how you felt about the program. It would be helpful if you could take a few minutes to answer the attached questionnaire. Should you like to make additional comments, feel free to use the back of the form.

I appreciate your taking the time to respond to the attached questionnaire and hope that you will accept the attached candy bar as a small token of my appreciation. Please return the questionnaire to the office counter by the end of the week. If you have any questions or would like to know the results of the survey, please contact me.

Sincerely,

Brenda E. Spain
Coordinator of Special Education Services

pc: Joyce H. Trump, School Superintendent
    Milton R. Liverman, Assistant Superintendent of Instruction
    Janice B. Holland, Principal of Elephant's Fork Elementary School
Dear Parents:

During the 1993-94 school year, Suffolk Public schools began preparing for an inclusion pilot program, "Teaching to Learn." This program will include fourth grade students in Mrs. Baker's and Mrs. Rapier's classes during the 1994-95 school year. We hope that the children in these classes will benefit academically, socially, physically and emotionally from the general and special education co-teaching model for learning. There will be two fourth grade teachers, one teacher of the learning disabled and one special education teacher assistant assigned to the two fourth grade classes.

It would be most helpful if you would agree for your child's Iowa Test of Basic Skills scores, Kaufman Test of Educational Achievement, report card grades, progress on IEP, and any formal referrals to the principal for misbehavior from the 1993-94 and 1994-95 school years to be analyzed to determine the success of the pilot program. All information will be handled in a manner that is confidential and will not be traceable to individual children.

Please complete the attached permission form and return to Elephant's Fork Elementary School in the attached self-addressed envelope. If you have any questions, please attend the open house on September 1, 1994, at 6:00 p.m. at Elephant's Fork Elementary School. Staff members will be available to answer your questions.

Sincerely,

Brenda E. Spain
Coordinator, Special Education

BES/jtf
re.ltr

Encls.

pc: Beverly B. Cox, III, Superintendent
   Joyce H. Trump, Asst. Superintendent
   Janice Holland, Principal-Elephant's Fork
Dear Parents:

Last year, Suffolk Public Schools gave me permission to study the pilot inclusion program. In this program students with learning disabilities were included full-time in certain general education classrooms. The special education teacher and teacher assistant were in the classroom with the students offering assistance to all students. It is important to know if the program had a positive effect on the students with learning disabilities, as well as, the other general education students.

I am interested in knowing how you felt about the program. It would be helpful if you could take a few minutes to answer the attached questionnaire. Should you like to make additional comments, feel free to use the back of the form.

It would be helpful to know what the students thought, if anything, of the program. I would like to have the staff interview your son/daughter about his/her opinion of the program. This interview would take approximately 15 minutes and would consist of similar questions as in your questionnaire. A permission form is attached to this letter.

I appreciate your taking the time to respond to the attached questionnaire and allowing your son/daughter to be interviewed. Please return the questionnaire and permission form to your child's teacher. If you have any questions or would like to know the results of the survey, please contact me.

Sincerely,

Brenda E. Spain  
Coordinator of Special Education Services

pc: Joyce H. Trump, School Superintendent  
Milton R. Liverman, Assistant Superintendent of Instruction  
Janice B. Holland, Principal of Elephant's Fork Elementary School

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APPENDIX D

Consent Forms
PILOT INCLUSION PROGRAM

PERMISSION FORM FOR INTERVIEWING STUDENTS

I GIVE PERMISSION for Suffolk Public Schools and Mrs. Brenda Spain, Coordinator of Special Education, to interview my child about the inclusion program for the purpose of analyzing its success. I understand that this information will be handled in a manner that is confidential and will not be traceable to my child.

______________________________
Name of Child

______________________________
Signature of Parent

______________________________
Date

I DO NOT GIVE PERMISSION for Suffolk Public Schools and Mrs. Brenda Spain, Coordinator of Special Education, to interview my child about the inclusion program for the purpose of analyzing its success.

______________________________
Name of Child

______________________________
Signature of Parent

______________________________
Date
I GIVE PERMISSION for Suffolk Public Schools and Mrs. Brenda Spain, Coordinator of Special Education, to use my child’s Iowa Test of Basic Skills scores, report card grades and conduct referrals for analysis of the inclusion program: "Teaching to learn." I understand that this information will be handled in a manner that is confidential and will not be traceable to my child.

______________________________
Name of Child

______________________________  ______________________________
Date  Signature of Parent

I DO NOT GIVE PERMISSION for Suffolk Public Schools and Mrs. Brenda Spain, Coordinator of Special Education, to use my child’s Iowa Test of Basic Skills scores, report card grades and conduct referrals for analysis of the inclusion program: "Teaching to Learn.

______________________________
Name of Child

______________________________  ______________________________
Date  Signature of Parent
I GIVE PERMISSION for Suffolk Public Schools and Mrs. Brenda Spain, Coordinator of Special Education, to use my child's Kaufman Test of Educational Achievement, report card grades, progress on IEP and conduct referrals for analysis of the inclusion program: “Teaching to Learn.” I understand that this information will be handled in a manner that is confidential and will not be traceable to my child.

________________________________________
Name of Child

________________________________________
Date

________________________________________
Signature of Parent

I DO NOT GIVE PERMISSION for Suffolk Public Schools and Mrs. Brenda Spain, Coordinator of Special Education, to use my child’s Kaufman Test of Educational Achievement, report card grades, progress on IEP and conduct referrals for analysis of the inclusion program: “Teaching to Learn.”

________________________________________
Name of Child

________________________________________
Date

________________________________________
Signature of Parent
APPENDIX E

Virginia Standards of Learning

SOL

The Virginia Board of Education adopted new Standards of Learning in four core subject areas: mathematics, science, English, and history and social science. The new Standards of Learning (SOL) set reasonable targets and expectations for what teachers need to teach and students need to learn. These academic standards let teachers know what is expected of students, and each student's performance and achievement can be measured against the standard. This requirement provides accountability on the part of the LEA.

Under the leadership of four LEAs beginning in April 1994, parents, teachers, principals, school board members, and community leaders reviewed and revised the SOLs. National experts were consulted. Public comment was reviewed by the Board of Education as the standards were developed (Standards of Learning, 1995).
APPENDIX F

Survey Forms
STAFF QUESTIONNAIRE
PILOT INCLUSION PROGRAM

Please check ONE sentence. If the sentence has a choice in parenthesis, circle the one that describes your involvement with inclusion.

__ I am a general education teacher (involved / not involved) with an inclusion program.
__ I am a special education teacher (involved / not involved) with an inclusion program.
__ I am a teacher assistant (involved / not involved) with an inclusion program.
__ I am a resource teacher.
__ I am an administrator.

1. Was the inclusion program successful? yes no unsure
2. Should the program continue? yes no unsure

If you were not involved in an inclusion program, skip to questions 12 and 13.

3. Why were you involved in the program? __________________________________________

4. What was the most difficult aspect of the program? ________________________________

5. What was the best aspect of the program? ________________________________________

6. Were social skills of the students with learning disabilities affected by being in the general education classroom full time? yes no unsure
   If yes, how were they affected? __________________________________________________

7. Were social skills of the students without disabilities affected by having students with learning disabilities fully included in their general education classroom? yes no unsure
   If yes, how were they affected? __________________________________________________

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8. Were academic outcomes of students with learning disabilities affected by being included full time in the general education program? yes no unsure
If "yes", how were they affected? _____________________________________

9. Were academic outcomes of students without disabilities affected by having students with learning disabilities included full time in their general education classroom? yes no unsure
If "yes", how were they affected? _____________________________________

10. Did the students with learning disabilities in the class put extra demands on the general education teacher's time? yes no unsure
If "yes", what were they? ____________________________________________

11. Were there affects beyond class time? yes no unsure If "yes", describe them. ____________________________________________________

12. What recommendations do you have? ______________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________

13. What guidelines should be included in the plan for next year? ______
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________

General Comments: _______________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
PARENT QUESTIONNAIRE

STUDENTS WITHOUT LEARNING DISABILITIES

PILOT INCLUSION PROGRAM

I am this child's
___ Mother          ___ Father
___ Grandmother     ___ Grandfather
___ Other (Explain) ______________________________

Circle a response to the following questions:

1. Are you aware that students with learning disabilities are in your child's class?  yes  no  unsure
2. Is the program successful for students with learning disabilities?  yes  no  unsure
3. Is the program successful for students without learning disabilities (general education students)?  yes  no  unsure
4. Has your child benefited by having students with learning disabilities in his/her class full-time?  yes  no  unsure
5. Has your child been harmed in any way by this program?  yes  no  unsure
6. Has there been any effects beyond class time? (If yes, use the space below to describe them.)  yes  no  unsure
7. Are you aware that there is an additional teacher or teacher assistant in the room for the majority of the day?  yes  no  unsure
8. Do you feel the program should continue?  yes  no  unsure

Effects beyond class time: __________________________________________________________

Recommendations/Comments: ______________________________________________________
PARENT QUESTIONNAIRE
STUDENTS WITH LEARNING DISABILITIES
PILOT INCLUSION PROGRAM

I am this child's
___ Mother ___ Father
___ Grandmother ___ Grandfather
___ Other (Explain) ______________________

Circle a response to the following questions:

1. Are you aware that your child is fully included in a general education classroom? yes no unsure

2. Is the program successful for your child? yes no unsure

3. Is the program successful for general education students? yes no unsure

4. Has your child benefited by being fully included in his/her general education classroom? yes no unsure

5. Has he/she been harmed in any way by being fully included in his/her general education classroom? yes no unsure

6. Are there any effects beyond class time? (If yes, use the space below to describe them.) yes no unsure

7. Are you aware that there is an additional teacher or teacher assistant in the room for the majority of the day? yes no unsure

8. Do you feel the program should continue? yes no unsure

Effects beyond class time: ____________________________________________

Recommendations/Comments: ________________________________________
APPENDIX G

Interview Forms
STUDENT WITHOUT DISABILITIES INTERVIEW
PILOT INCLUSION PROGRAM

Student _____________________ Date ___________________

1. Did you have students with learning disabilities included in your class?
   yes no unsure
   If yes:
   How did you know? ___________________________________________
   How many students with learning disabilities where in your class? ____
   Can you give their names? _____________________________________

2. Was it a good idea to have students with learning disabilities in your class?
   yes no unsure
   Why? _________________________________________________________

3. What changes have you noticed in these students? ________________

4. Why were they in your class? _______________________________________________________________________

5. Did you learn anything special by having them in your class this year?
   yes no unsure
   If yes, what? _________________________________________________

6. Are there other things that these students could do in our school or our city? _

7. Are any of these students your friends? yes no unsure

8. Would you like to have one of them in your class next year? yes no unsure

9. What do you plan to do when you grow up? ________________________________________________

10. Is there anything else you would like to say about these students? ________________

Other comments ____________________________________________
________________________________________________________________________
________________________________________________________________________

Interviewer comments ____________________________________________
________________________________________________________________________
________________________________________________________________________

Signature of Interviewer: ____________________________________________

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STUDENT WITH LEARNING DISABILITIES INTERVIEW
INCLUSION PROGRAM

Student __________________________ Date ___________________

1. Were you in (Give the general education teacher’s name) room all day, like the other students?
   yes  no  unsure

2. Was it a good idea to be in (Give the general education teacher’s name) room all day, like the other students?
   yes  no  unsure

3. Did you learn anything special by being in your class this year?
   yes  no  unsure
   If yes, what? ____________________________________________

4. What kind of things do you like to do after school? ____________________________

5. Who are some of your best friends? ____________________________

6. What do you plan to do when you grow up? ____________________________

7. Is there anything else you would like to say about the other students in your class?
   ____________________________________________

Other comments ____________________________

Interviewer comments ____________________________

Signature of the Interviewer: ____________________________
APPENDIX H

Time Log Form
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<th>Activity</th>
<th>Notes</th>
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</table>
VITA
Brenda Elliott Cox

B.A. June 1975, Old Dominion University
M.A May 1980, Old Dominion University

Brenda Elliott Cox was born June 3, 1953, in Norfolk, Virginia. She is an administrator with twenty-four years of teaching and administrative experience in special education in the public school, private school, public residential, and private residential settings in Norfolk, Virginia Beach, Chesapeake, Franklin, and Suffolk, Virginia. She has taught students with mental retardation, severe and profound disabilities, developmental delays, severely emotionally disturbance, and who have been medically fragile.

She is employed by the Norfolk Public School System in Virginia where she is serving as the Senior Director of Special Education. She has served as the Coordinator of Special Education Services for Suffolk City Schools for nine years and the Supervisor of Special Education Services for Franklin City Schools for eight years. Her responsibilities include developing and implementing policies and procedures, supervising the evaluation, identification, and education of students with disabilities, and coordinating special education placements.

She has been a mentor in Project Special Education Administrator Mentor (Project SEAM) for special education directors of other school systems, a facilitator for Project Search Out and Reach (Project SOAR) for the training of special education teachers, a member of the Virginia State Department of Education Council of Special Education Director, the Region II Special Education Director for two terms, a member of the Occupational and Physical Therapy Committee for the Virginia State Department of
Education, and a member of the Norfolk Interagency Council.

Additionally, she has been a member of the National and Virginia Council of Special Administrators and National and Virginia Council for Exceptional Children.