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STUDENT AND TEACHER EFFECTS OF ELEMENTARY SCHOOL TRACKING: AN EXAMINATION OF A RURAL GEORGIA SCHOOL DISTRICT

David L. Strickland

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STUDENT AND TEACHER EFFECTS OF ELEMENTARY SCHOOL TRACKING: AN EXAMINATION OF A RURAL GEORGIA SCHOOL DISTRICT

by

DAVID L. STRICKLAND

A Thesis Submitted to the Faculty
of the College of Graduate Studies
Georgia Southern University
in Partial Fulfillment of the
Requirements of the Degree
Master of Arts

Statesboro, Georgia
1994

STUDENT AND TEACHER EFFECTS

OF ELEMENTARY SCHOOL TRACKING:

AN EXAMINATION OF A RURAL

GEORGIA SCHOOL DISTRICT

BY

DAVID L. STRICKLAND

Howard M. Kaplan

Howard M. Kaplan, Ph.D., Chairperson

Marilyn Morgan

Marilyn G. Morgan, D.S.W.

J Strickland

W. Jay Strickland, Ph.D.

Approved:

W. S. Bradshaw

Vice President and Dean,
College of Graduate Studies

11/21/94
Date

ABSTRACT

This study examines the effects of homogeneous and heterogeneous ability grouping on teacher and student performance within three elementary schools in a rural Georgia school district. Research methodologies included an analyses of standardized achievement test scores, a teacher questionnaire, and individual interviews with teachers. The analyses of standardized test scores revealed that 2nd grade students who were heterogeneously grouped performed significantly better on math and verbal skills than 2nd grade students who were homogeneously grouped. Teacher questionnaire responses did not reveal significant differences between homogeneous and heterogeneous years in student self-esteem, discipline, or classroom management. However, teachers who had formerly taught lower ability homogeneous classes, stated in interviews that discipline and student self-esteem was much improved for low ability students under heterogeneous grouping. Teacher questionnaire responses revealed that planning lessons and teaching the range of students were perceived to be more difficult under heterogeneous grouping than under homogeneous grouping. Effects of the grouping change upon teacher morale was also examined.

ACKNOWLEDGMENTS

This study was funded by the Bulloch County Board of Education through the Center for Rural Health and Research. The Center for Rural Health and Research, directed by Dr. Charlene M. Hanson, is part of the College of Health and Professional Studies at Georgia Southern University. The Board of Education collected scores from the Iowa Test of Basic Skills (ITBS) and arranged for the administration of the teacher questionnaires and interviews. Thanks all of the Board of Education staff, principals, instructional coordinators, school counselors, and teachers who participated in this study for their cooperation.

I greatly appreciate the contribution of my thesis committee. Dr. Howard Kaplan, chair of the committee, gave direction and guidance for the thesis. I am also indebted to him for the training in program evaluation I received in my graduate program. Dr. Marilyn Morgan conducted a conscientious review of the thesis and served as a member of my committee. Dr. Jay Strickland served as a member of the committee and contributed many hours of guidance and instruction far above the call of duty through each stage of

this research project. I am also indebted to her for the training in sociological theory and methods I received in my graduation program.

Portions of this thesis have appeared in a paper that was awarded "Best Graduate Student Paper" at the 1993 meeting of the Georgia Sociological Association. Dr. Strickland served as my sponsor in that competition and provided much support.

Rebecca Ryan, Coordinator of Research, Projects and Grants for the Center for Rural Health and Research, provided administrative leadership throughout this project and Dr. Jane Page, Chair of the Department of Educational Foundations and Curriculum and Professor of Educational Foundations and Curriculum, supplied many articles as well as unpublished documents, newspaper articles, and other media that were essential in researching the background for this study.

Finally, I wish to express deep gratitude to my wife, Jay, and my two daughters, Elisabeth Joy and Carla Marie Strickland. They have patiently provided much inspiration and encouragement throughout my degree program.

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CHAPTER I

BACKGROUND

This study examines student and teacher effects of ability grouping in elementary school. Chapter I describes the research question, the significance of the study, the historical context of the study, and the research process. An overview of the thesis organization is also presented in this chapter.

The Research Question

This study examines the effects of homogeneous and heterogeneous ability grouping on teacher and student performance in grades one through five within three elementary schools in Statesboro, Georgia. The study examined two primary elementary schools containing grades one and two (Sallie Zetterower Elementary School and Mattie Lively Elementary School) and one upper elementary school containing grades three to five (Julia P. Bryant Elementary School). These are hereafter referred to as the target schools. Under homogeneous grouping, each classroom

consists primarily of above average, average, *or* below average students. Under heterogeneous grouping, students are not tracked by ability. Rather each heterogeneously grouped classroom includes students of above average, average, *and* below average academic ability and performance. The primary independent variable in this study is type of grouping. Relevant dependent variables include both student and teacher effects. Student effects include achievement and self-esteem. Teacher effects include difficulty of instructional planning, difficulty of lesson preparation, difficulty of maintaining discipline in the classroom, difficulty of overall classroom management, and professional morale.

Significance

This study has applied, theoretical, and empirical significance. The study serves as a formative evaluation for the Bulloch County Board of Education to measure progress and improve instruction within the school district. It also adds to the sociological body of knowledge related to labeling and achievement.

Applied Significance

Prior to fall, 1991, elementary classrooms in the three target schools were organized according to *homogeneous* ability grouping. This means that each classroom was comprised of primarily above average, primarily average, *or* primarily below average students. Beginning fall, 1991, classroom assignment was no longer based on academic ability. Under the new program of *heterogeneous* ability grouping, each classroom included students of above average, average, *and* below average academic ability and performance.

The Board of Education instituted this change in order to comply with state regulations regarding racial integration (Page & Page, 1993). Homogeneous grouping in Bulloch County schools had resulted in *de facto* racial segregation because lower ability grouped classrooms were comprised mostly of minority children and children from lower social-economic class homes.

Many teachers and parents in Bulloch County opposed the academic, racial, and socioeconomic integration brought about by heterogeneous grouping. The change was accompanied by heated debates at School Board meetings and letters to the editor of the local newspaper. Due to the sensitive and controversial nature of the grouping change,

the Board of Education solicited this independent analysis of student and teacher effects by the Center for Rural Health and Research. The Center for Rural Health and Research is a unit of the College of Health and Professional Studies of Georgia Southern University.

Conducting the survey and interviews appeared to help some teachers work through the process of the organizational change. Many teachers welcomed the chance to voice their opinions and concerns to an independent researcher. They wanted their opinions to be represented in the summary report that would be presented to the School Board. Public dissemination of the positive findings regarding the student scores on achievement test served to validate the changes that had been made and reassure parents that their children would not suffer academically due to the new grouping arrangement.

General Theoretical and Empirical Significance

This study contributes to the theory and empirical research within the sociology of education. The findings of this study help to explain how the tracking and labeling of elementary students can affect the self esteem of students and the professional morale of teachers. It contributes empirical data to the body of research that

demonstrates how labeling theory and the concepts of the looking-glass self and self-fulfilling prophecy explain the tracking dynamic.

A unique feature of this research is that it examines the effects of grouping in the specific educational subculture of a rural, south Georgia school district. This study is valuable for comparison to studies of grouping effects in other educational subcultures. The study may also be used as a foundation for a longitudinal study of heterogeneous grouping effects on this specific population.

Historical Context

This section examines the historical context of the tracking issue in Bulloch County and the research procedures used to conduct this study.

The Tracking Issue in Bulloch County

All elementary classes in Bulloch County were heterogeneously grouped and segregated by race before 1970 (see Page & Page, 1993). In 1971, Bulloch County schools were reorganized and integrated in order to comply with a court order issued as a result of "United States vs. Board of Education, Bulloch County" (*United States vs. Board of Education, Bulloch County*, 1971). During that same school

year (1971-72), school officials instituted a modified form of ability grouping. Modified grouping gradually evolved into strict tracking where placement into distinct levels was based on standardized achievement test scores and teacher recommendations. The first grade became so finely tracked that ten classrooms reflected ten discrete ability groups.

During the 1991-92 school year, the Bulloch County Board of Education conducted a study to determine the feasibility of heterogeneous grouping methods as an alternative to strict tracking. Central office staff members of the Bulloch County Board of Education conducted a review of the literature on tracking that focused on the achievement of students in different grouping structures and the social implications of tracking. Their findings were summarized in an unpublished paper titled "Classroom Assignment by Ability" (Bulloch County Schools, 1991).

This initial effort at laying the groundwork toward heterogeneous grouping was prompted by four social and/or legal stimuli: (1) accreditation reports from the Southern Association of Colleges and Schools, (2) teacher recommendations from a 1989 inservice meeting concerning "Meeting the Needs of At-Risk Students," (3) a report from a group of primary teachers called "Committee of Concerned

Educators Against Homogeneous Grouping at Sallie Zetterower Primary School," and (4) an investigation by the Office of Civil Rights (Page & Page, 1993).

In the July 9, 1991 School Board meeting, the Board elected to adopt a *heterogeneous cluster grouping* procedure in the primary schools beginning with the 1991-92 school year. Heterogeneous grouping refers to assigning above average, average, and below average ability students to each classroom. Heterogeneous *cluster* grouping is a form of heterogeneous grouping in which the range of ability for any given classroom is limited so that students with very high ability are not placed in the same classroom as students with very low ability.

Although the grouping change was not publicized through the media, some parents noticed the change at the beginning of the school year and formed an opposition group. Fourteen couples who were opposed to heterogeneous grouping organized the "Citizens for Better Education" group and hired legal representation (Milner, 1991). At the October 8, 1991 meeting of the Board of Education, a large number of parents and educators, some in favor of and some opposed to the organizational change, made presentations to the Board.

Proponents of heterogeneous grouping focused on the need for equity in education and the redistribution of power in the community (Lee, 1991). Many of these proponents, especially those who were African-American, viewed tracking as a form of racial segregation. They felt that this type of discrimination restricted access for some students to the type of education they need to succeed in the adult world. An African-American teacher made the following representative remarks at the meeting (Lee, 1991).

> No matter how you slice it, people, grouping is wrong. We've had twenty years of grouping and we're more segregated now than ever before. . . . students were tracked long before they reached high school. They were tracked from the eighth day of kindergarten. That's when the teacher decided who would be successful and who would not, from the eighth day of kindergarten! . . . It segregates, it destroys, we have no cooperation within the system or in society. I have felt the rejection that these students in low levels are feeling each and every day. I requested the higher level classes several times. I watched as white teachers new and old entered the system and were selected over me.

Opponents of heterogeneous grouping emphasized traditional norms of individualism and achievement and focused on meeting differing educational needs through stratification (Page & Page, 1993). One opponent's comments in an editorial letter to the local newspaper is

representative of the focus of the pro-tracking (Riggs, 1991).

> We have had achievement grouping in our school for more than twenty years. Our Board Members' children were educated this way. We know it works. . .There have always been children who were more motivated to learn than others and some who learn quicker. . . .There is no reasonable explanation to change the system that is proven and works well for all children.

During the October 22, 1991 meeting, the Board of Education formed a committee to study the effects of the grouping changes that were made in the primary schools and make recommendations. Both teachers who were for and those who were against tracking were represented on the committee. After several months of study, the committee recommended and the Board approved that the two primary schools (grades 1 and 2) continue heterogeneous cluster grouping and that the upper elementary school (grades 3-5) adopt this organization during the next school year (1992-93).

In May of 1992, an Office of Civil Rights (OCR) representative met with the Bulloch County Board of Education and the School Board attorney to discuss the findings from the 1991 OCR investigation and to inform the Board that the OCR would conduct another investigation during the 1992-93 school year (Page & Page, 1993). A news release, originating from the Bulloch County School

Superintendent (Bice, 1992), explains the OCR findings and the resolve of the school district.

> Regarding the initial data analysis, it looks as though racially identifiable groups existed in all six schools studied during the initial review in January 1991. Some of these groups have been eliminated as a result of the recent change in grouping practices at Mattie Lively and Sallie Zetterower. The local district will conduct an in-depth review of the data from the other four schools and recommend appropriate adjustments to the Board of Education. Throughout this process, administrators and teachers will be involved in developing these recommendations and the Board of Education will continue to communicate proposed changes to its constituents.
>
> The Bulloch County School System is committed to resolving these issues. Failure to do so would result in loss of federal funds. In addition, the school system is still under a 1971 court order which required OCR to forward their findings and recommendations to the Justice Department for appropriate action. Finally, the local Board simply must adhere to the law.

The necessary modifications were made at all identified schools in compliance with the Office of Civil Rights guidelines.

In response to the concern parents expressed about the grouping change, the Board of Education promised to monitor the changes and the effects it may have on the students (Page & Page, 1993). The Board employed the Center for Rural Health and Research to conduct this independent study of the effects of the change to heterogeneous grouping. This study was conducted in April and May of 1993. At the

time of the study, the primary schools (grades 1-2) had been heterogeneously grouped for nearly two years and the upper elementary school (grades 3-5) had been heterogeneously grouped for almost one year.

The Research Process

Representatives from the Center for Rural Health and Research and the Board of Education met and discussed the focus and scope of this research project in order to insure that it would meet the needs of the Board of Education. Multiple methodologies--including a brief review of the literature, an analysis of the students' Iowa Test of Basic Skills (ITBS) scores, a survey of teacher opinion, and in-depth personal interviews with teachers--was recommended and implemented. David Strickland was selected as Project Director.

A draft version of the teacher survey was designed and presented to Board of Education representatives for approval. It was then edited, and final copies were reproduced. Special care was given to preserve the anonymity of respondents in each phase of the research. The teachers' names were not recorded on the questionnaire, and the identity of teachers who were selected for in-depth interviews was not recorded on the interview schedule or

published at any time. The Board of Education provided anonymous copies of ITBS scores for analysis. First and second grade scores were matched, but student names were not available to the researchers.

Findings of the study were presented first to Board of Education representatives in private and then to the entire Board of Education in a public meeting. An executive summary report was distributed to all Board members and central office staff and a fully detailed report was presented to the Chairperson of the Board, the Superintendent of Schools, and the central office.

Thesis Organization

Chapter I addresses the research question, the significance of the study and the historical context in which the study was conducted. Chapter II summarizes the theoretical perspectives from which the research is approached. Chapter III describes the triangulated research design, including a statistical analysis of student test scores, survey research, and in-depth personal interviews. Chapter IV summarizes quantitative and qualitative research findings, and chapter V includes discussion of the study, strengths and weakness of the study, and recommendations for future research.

Chapter Summary

This chapter presents the background for the study. The purpose of this research is to examine the effects of ability grouping on students and teachers in the Bulloch County school district. The applied and theoretical significance of this research is explained, and a summary of the historical context in which the study was conducted is presented. An overview of the thesis organization is also presented.

CHAPTER II

LITERATURE REVIEW

Equity in education has been a major concern of educational theorists since the 1960s (see Ogletree, 1968; Sarthory, 1968). The role that ability grouping, also called tracking, plays in promoting inequity in education received nationwide attention in the seventies, resulting in an organizational change to heterogeneous grouping for most school districts. However, some areas of the deep South, including Bulloch County, Georgia, were resistant to this type of systemic organizational change. The Bulloch County Board of Education began to embrace this body of research in the 1990s as guidance for the grouping changes that needed to be made (Page & Page, 1993). Following is a summary of the educational research that informed the implementation of heterogeneous grouping in Bulloch County.

Research on Grouping

Existing research on ability grouping has found that homogeneous grouping fails to enhance achievement as had

been generally assumed, further promotes inequity in education, and has a harmful effect on the self-esteem of students placed in the lower academic tracks. The following four points summarize these findings.

(1) *Homogeneous grouping does not enhance achievement.*

The traditional view of tracking by ability grouping is that the segregation of students according to ability level contributes positively to the academic progress of all students. However, empirical research has not supported this view. In an extensive survey of research, Slavin (1987) noted that evidence from 17 comparisons in 13 matched equivalent and one randomized study clearly indicated that assigning students to homogeneous classes did not enhance student achievement in elementary school. A study based on a large national sample of schools in Great Britain found that grouping did not increase achievement test performance, except among students in the highest ability groups (the top 3 percent) (Kerckhoff, 1986).

(2) *Homogeneous grouping cheats students in "below average" and "average" classrooms.*

Oakes (1988) observed, "One fact is unequivocal: tracking leads to substantial differences in the day-to-day learning experiences students have at schools." Oakes described the ways that the learning experiences of children

in "below average" and "average" groups are inferior to the learning experiences of children in "above average groups." The specific differences Oakes described (Oakes, 1988) are listed in Table 1. Oakes (1988) concluded that, by the end of elementary school, much of the difference in student achievement is the result of different "learning experiences" rather than innate ability.

In addition, a review of 400 studies concluded that teachers' expectations directly impact student achievement regardless of actual student ability (Page & Rosenthal, 1990). Teachers have lower expectations of students labeled "below average," communicate lower expectations to these students, and do not invest as much in these students. Conversely, teachers have higher expectations of students labeled "above average," communicate their high expectations to these students, and invest much more in their students. These studies show that labeling students and classrooms by "ability level" has a deleterious effect on many students.

(3) *Homogeneous grouping may not promote democratic principles.*

Many researchers have suggested that the most compelling argument against ability grouping may be that it goes against our democratic ideals (Braddock & Slavin, 1994; Oakes, 1982; Oakes, 1985). Because ability groups often parallel social class and ethnic groupings, the use of

Table 1

Consequences of Homogeneous Ability Grouping for Different Groups

"Above Average" Groups	"Average" & "Below Average" Groups
More topics	Fewer topics
Broader range of topics	Narrower range of topics
Greater depth of topics	Shallower treatment of topics
Higher achievement expectations	Lower achievement expectations
Emphasis on learning	Emphasis on behavior
Teacher more positive	Teacher less positive

ability groups may serve to increase divisions along class, race, and ethnic lines (Slavin, 1987).

In Keeping Track: How Schools Structure Inequality, Jeannie Oakes devoted an entire chapter to constitutional questions (Oakes, 1985). She points out that in the tracking process the odds are not quite equal.

> Those children who seem to have the least of everything in the rest of their lives most often get less at school as well. . . . Those at the bottom of the social and economic ladder climb up through twelve years of "the great equalizer," Horace Mann's famous description of public schools, and end up still on the bottom rung. (Oakes, 1985: 4)

Slavin (1987) concludes that all students need opportunities to interact with a wide range of peers.

(4) *Homogeneous grouping has a negative effect on the self-esteem of students placed in the lower tracks.*

Ability grouping involves certain predictable characteristics that tend to contribute to lower self-esteem for students placed in the lower tracks. Oakes (1985: 3) describes some of these characteristics.

> First, students are identified in a rather public way as to their intellectual capabilities and accomplishments. . . . Second, these groups are labeled quite openly and characterized in the minds of teachers and others as being of a certain type--high ability, low achieving, slow, average, and so on. Clearly these groups are not equally valued in the school. . . . Third, individual students in these groups come to be defined by others--both adults and their peers--in terms of these group types. In other words, a student in a high-achieving group is seen as a high-achieving

> person, bright, smart, quick, and in the eyes of many, good. And those in the low-achieving groups come to be called slow, below average, and--often when people are being less careful--dummies, sweathogs, or yahoos.

Pool and Page (1994) identified the destruction of student dreams and the production of low student self-esteem as evils of tracking. In a recent study, Braddock and Slavin (1992, 1994) found that students placed in the low track have significantly lower self-esteem than low achievers in mixed-ability classes. Numerous earlier studies have found, even when controlling for actual achievement, that students in low tracks report low self-esteem and feelings of inferiority, shame, and anger (Oakes, 1982; Ogletree, 1968; Persell, 1977; Rosenbaum, 1976; Sarthory, 1968; Schafer & Olexa, 1971). The following quote from Ollie Taylor, an eleven-year old African-American boy who had been recently been assigned to the low track in his school, vividly illustrates this point (see Braddock and Slavin, 1994: 10).

> The only thing that matters in my life is school, and there they think I'm dumb and always will be. I'm starting to think they're right. Hell, I know they put all the black kids together in one group if they can, but that doesn't make any difference either. I'm still dumb. Even if I look around and know that I'm the smartest in my group, all that means is that I'm the smartest of the dumbest.

Recommendations from Research on Grouping

Existing research suggests that, in most cases, students should remain in heterogeneous classes and that students' primary identification should be with a heterogeneous class (Slavin, 1987). Small group and individual instruction may also be necessary within heterogeneously grouped classrooms. After considering the extensive body of existing research, Slavin (1987) recommends the following five guidelines for small group teaching within the heterogeneous classroom.

1. Group students homogeneously only when skill levels are critical (e.g., math).
2. Assignment to small groups should be based on specific skill level, not on general IQ or overall achievement.
3. Teachers should adjust level and pace to the skill level of each group.
4. Ability groups should be small.
5. The assignment of individual students to groups should be reassessed regularly. This allows students to progress from group to group as changes in their skill warrants.

Theoretical Perspective

Educational research is replete with studies that show how ability grouping affects student achievement and student self-esteem and promotes inequity in education. Social scientists and educational researchers often draw upon labeling theory and the concepts of the looking-glass self and self-fulfilling prophecy to explain this dynamic.

Labeling Theory

The symbolic interaction perspective is useful for explaining how labeling students with regard to academic ability can affect their academic performance. According to the symbolic interaction perspective, humans assign meanings to objects in their environment and interact on the basis of these symbols and shared meaning (see Turner, 1991). W. I. Thomas (1928: 527) observed, "If men define situations as real, they are real in their consequences." In other words, once meanings or labels are attached to objects, including people, individuals act as if the meanings are true. Merton (1957: 421-22) clarified this point.

> Men respond not only to the objective features of a situation, but also and at times primarily to the meaning this situation has for them. And once they have assigned some meaning to the situation, their consequent behavior and some of the consequences of that behavior are determined by the ascribed meaning.

According to labeling theory, when a human behavior, condition, or social position is labeled, it can become internalized by those who are labeled and result in actions that fulfill the expectations associated with the label. Labeling usually involves the acquisition of a stigma, "a powerfully negative label that radically changes a person's social identity and self-esteem" (Macionis, 1994: 127). This theory helps to explain why children who were labeled low ability performed more poorly on standardized tests than their control group counterparts in numerous education research studies (see Slavin, 1987; Eder, 1981).

The Looking-Glass Self

Sociologists define self-esteem as the sum total of an individual's beliefs about his or her own personal attributes. Charles Horton Cooley (Cooley, 1902), one of the fathers of symbolic interactionism, viewed the self as the product of the process in which an individual sees him or herself as an object in their social environment, interacts with others, interprets the gestures of others, and sees themselves from the viewpoint of others (see Turner, 1991). He called this process the looking-glass self (Cooley, 1902). George Herbert Mead (1934) added that

the self-esteem is continually developed as individuals imagine how significant others view them and incorporate those perceptions into self-esteem.

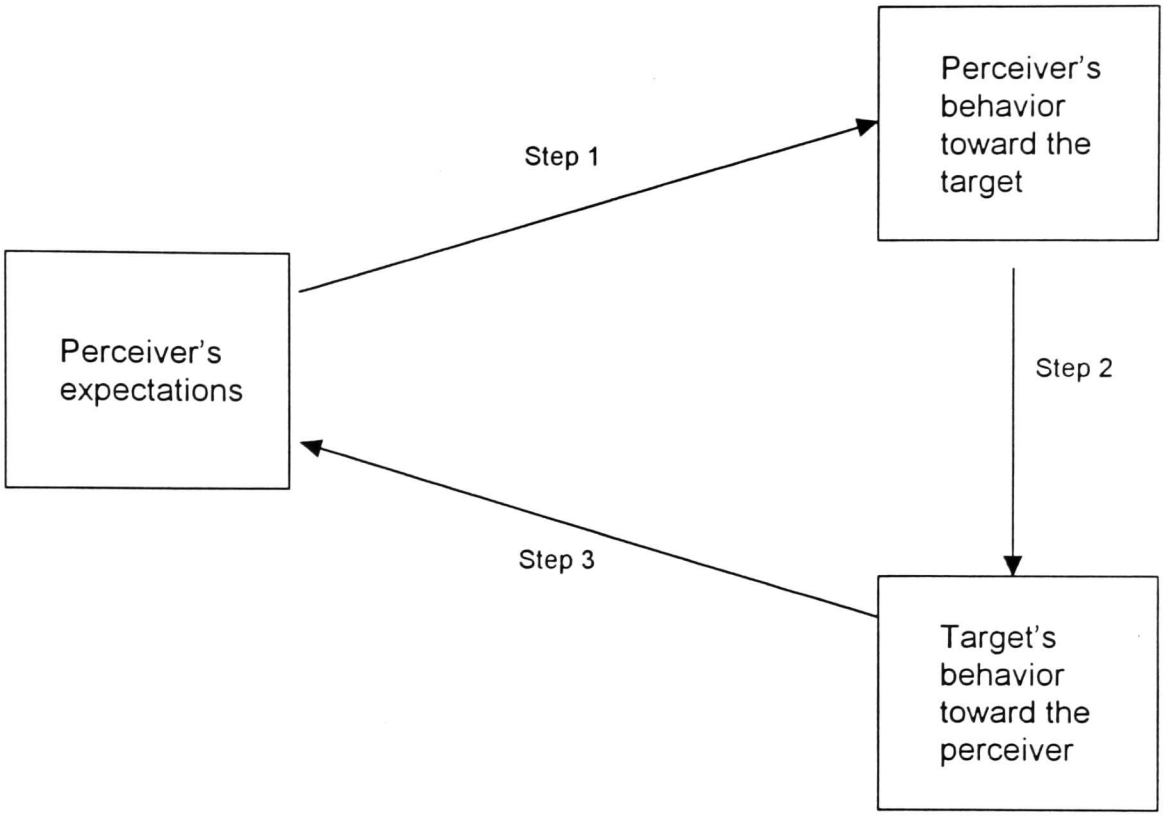
Many social and educational theorists believe that the looking-glass self explains how children who have been labeled low ability in a very public way through the tracking process develop negative self-esteem. In the context of the homogeneously grouped classroom, school authorities, such as the teacher, serve as significant others who mirror a negative self to the child based on their position in the tracking stratification.

Self-Fulfilling Prophecy

Self-fulfilling prophecy, also know as behavioral confirmation, is the theory that a perceiver's expectation can lead to its own fulfillment. Wiggins and others (1994, p. 229) defined self-fulfilling prophecy as "a false definition of a situation that creates conditions that make it come true." This theory was first suggested by Robert Merton in 1948, but it was not extensively tested and developed through research until 1968 when Robert Rosenthal and Lenore Jacobson studied its effect in San Francisco elementary schools and published the results in their landmark volume, Pygmalion in the Classroom (Rosenthal &

Figure 1.

Self-Fulfilling Prophecy as a Three-Step Process[1]



How does the self-fulfilling prophecy work? How do people transform their expectations into reality? (1) The process begins with a perceiver's expectations of a target person; (2) the perceiver then behaves in a manner consistent with those expectations; and (3) the target unwittingly adjusts his or her behavior according to the perceiver's actions.

---

[1] Figure and caption are from Social Psychology (p. 135) by Sharon S. Brehm and Saul M. Kassin, 1990, Boston, MA: Houghton Mifflin.

Jacobson, 1968). The concept is called the Pygmalion effect in educational research and has been tested in over 400 experiments inside and outside of the classroom since it was introduced (Harris & Rosenthal, 1985; Jussim, 1986; Page & Rosenthal, 1990; Rosenthal, 1985).

Figure 1 illustrates how self-fulfilling prophecy works. The process begins when the perceiver develops expectations of the target person. The perceiver then behaves toward the target person in a manner consistent with the expectations. Finally the target person unwittingly adjusts his or her behavior according to the perceiver's actions (Brehm & Kassin, 1990: 135). In the context of the homogeneously grouped classroom, the teacher as the perceiver develops impressions and expectations of his or her students based on how they have been labeled in the tracking process. The teacher's subsequent behavior toward the students reflects his or her expectations. Students (or classes of students) who are perceived as high ability receive more attention, emotional support, challenging assignments, and positive feedback than students who are perceived as low ability (Cooper & Good, 1983). Finally the students, as the target persons, perform according to the teachers' expectations and actions.

Conceptualization of Variables and Terms

This study is based on the following definitions of variables and terms.

Classroom management: Classroom management involves the overall teaching process, including teaching appropriate lessons in an effective way, maintaining a disciplined atmosphere that is conducive to learning, and planning and conducting instructional activities such as learning centers.

Discipline: Discipline refers to the extent to which the students' behavior is disruptive to classroom instruction.

Grouping : Grouping refers to the system by which students are assigned to classes within a school and grade. When the type of grouping is not specified, grouping is a synonym for tracking.

Heterogeneous grouping: Heterogeneous grouping refers to assigning above average, average, and below average ability students to each classroom.

Heterogeneous cluster grouping: Heterogeneous *cluster* grouping is a form of heterogeneous grouping in which the range of ability for any given classroom is limited so that students with very high ability are not placed in the same classroom as students with very low

ability. This is the form of grouping used in recent years in the target schools.

Homogeneous grouping: Homogeneous ability grouping refers to the practice of separating students into classes based on their ability or achievement. Ability is measured by standardized test scores and/or teacher recommendations. A school that is homogeneously grouped will have some classes of mostly above average ability students while other classes have mostly average or below average students.

Lesson planning: Lesson planning concerns the preparation teachers must make to serve the full range of their students' abilities.

Lesson presentation: Lesson presentation concerns teaching lessons and conducting instructional activities that are suitable to serve the full range of the students' abilities.

Professional morale: Professional morale refers to the level of satisfaction teachers have with their job overall.

Student achievement: Student achievement refers to the math and verbal knowledge and skills of the students relative to grade level as measured by performance on standardized tests.

Student effects: Student effects are the ways in which the type of grouping affects students. In this study, these include student achievement and student self-esteem.

Student self-esteem: Self-esteem refers to an individual's evaluation of him/her self as good or bad, better or worse, acceptable or unacceptable (Wiggins et al., 1994: 556). In this study, teachers were asked to evaluate the self-esteem of the students in their class as a group.

Teacher effects: Teacher effects are the ways in which the type of grouping affects teachers. In this study, these include difficulty of instructional planning, difficulty of lesson preparation, difficulty of maintaining discipline in the classroom, difficulty of overall classroom management, and professional morale.

Tracking: Tracking refers to the practice of assigning students to classes by discrete ability groups.

Hypotheses

Based on labeling theory and the concepts of the self-fulfilling prophecy and the looking-glass self, this study tests the following research hypotheses.

Student effects

H_1: Heterogeneously grouped students will perform better on the math section of the Iowa Test of Basic Skills than will homogeneously grouped students.

H_2: Heterogeneously grouped students will perform better on the verbal section of the Iowa Test of Basic Skills than will homogeneously grouped students.

H_3: The self-esteem of low ability students will be higher under heterogeneous grouping than under homogeneous grouping.

Teacher effects

H_4: Lesson planning will be less difficult for teachers under homogeneous grouping than under heterogeneous grouping.

H_5: Lesson presentation will be less difficult under homogeneous grouping than under heterogeneous grouping.

H_6: Maintaining classroom discipline will be more difficult for teachers of low ability groups under homogeneous grouping than under heterogeneous grouping.

H_7: Overall classroom management will be less difficult under homogeneous grouping than under heterogeneous grouping.

H_8: Professional morale will be lower for teachers of low ability groups under homogeneous grouping than under heterogeneous grouping.

Chapter Summary

This chapter reviews educational and social science research on ability grouping. Existing research on ability grouping has found that homogeneous grouping fails to enhance achievement as had been assumed, further promotes inequity in education, and has a harmful effect on the self-esteem of students placed in the lower academic tracks. Labeling theory and the concepts of the looking-glass self and self-fulfilling prophecy help to explain tracking effects.

This chapter also identifies the research hypotheses of the study. The hypotheses concern student effects (student achievement and student self-esteem) and teacher effects (lesson preparation, lesson presentation, classroom discipline, classroom management, and professional morale).

CHAPTER III

RESEARCH DESIGN AND METHODOLOGY

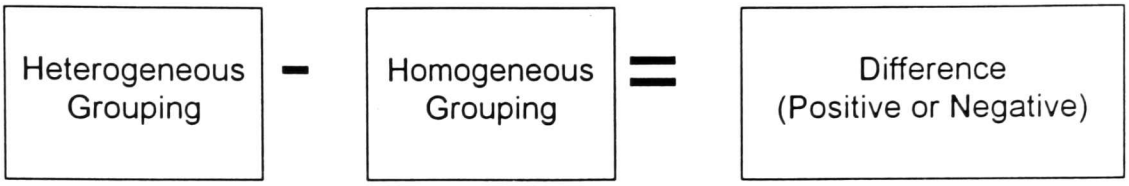
This chapter examines the research design of the study, including the three research methods that were used to collect and analyze data.

Methodological Triangulation

A triangulated research design was used to collect both quantitative and qualitative data because it provides a more complete assessment of the effects of ability grouping than any single methodology. The impact of ability grouping was ascertained by comparing student and teacher effects for homogeneously and heterogeneously grouped classrooms. Data were collected from records of the students' standardized test scores, a teacher questionnaire administered to all teachers, and in-depth interviews conducted with a sample of teachers. The model presented in Figure 2 lists the effects that were examined and illustrates the comparisons made between grouping styles. The specific schools, grades and years for which grouping styles were compared are listed in

Figure 2

Assessing Student Effects and Teacher Effects



Student Effects

* Student achievement
* Student self-concept

Teacher Effects

* Planning for instruction
* Lesson presentation skills and strategies
* Classroom discipline
* Classroom management
* Professional morale

Table 2

Comparison Groups: Schools, Grades, and Years

	Homogeneous Grouping	Heterogeneous Grouping
Sallie Zetterower (Grades 1 - 2)	1990-91 school year	1991-92 &1992-93 school year
Mattie Lively (Grades 1 - 2)	1990-91 school year	1991-92 &1992-93 school year
Julia P. Bryant (Grades 3 -5)	1991-92 school year	1992-93 school year

Table 3

Methods Used to Measure Student and Teacher Effects

		Methods		
		Analysis of Standardized Test Scores	Teacher Survey	Teacher Interviews
	Student Effects			
(1)	Student achievement	✓		
(2)	Student self-esteem		✓	✓
	Teacher Effects			
(3)	Lesson preparation		✓	✓
(4)	Lesson presentation		✓	✓
(5)	Classroom discipline		✓	✓
(6)	Classroom management		✓	✓
(7)	Professional morale		✓	✓

Table 2. Table 3 summarizes how the various methodologies were used to collect data on each aspect of the research question. The methodological procedures, the sample, the instrument, and the operationalization of the variables relative to each methodology are described in the following sections.

Research Method 1: Analysis of Standardized Test Scores

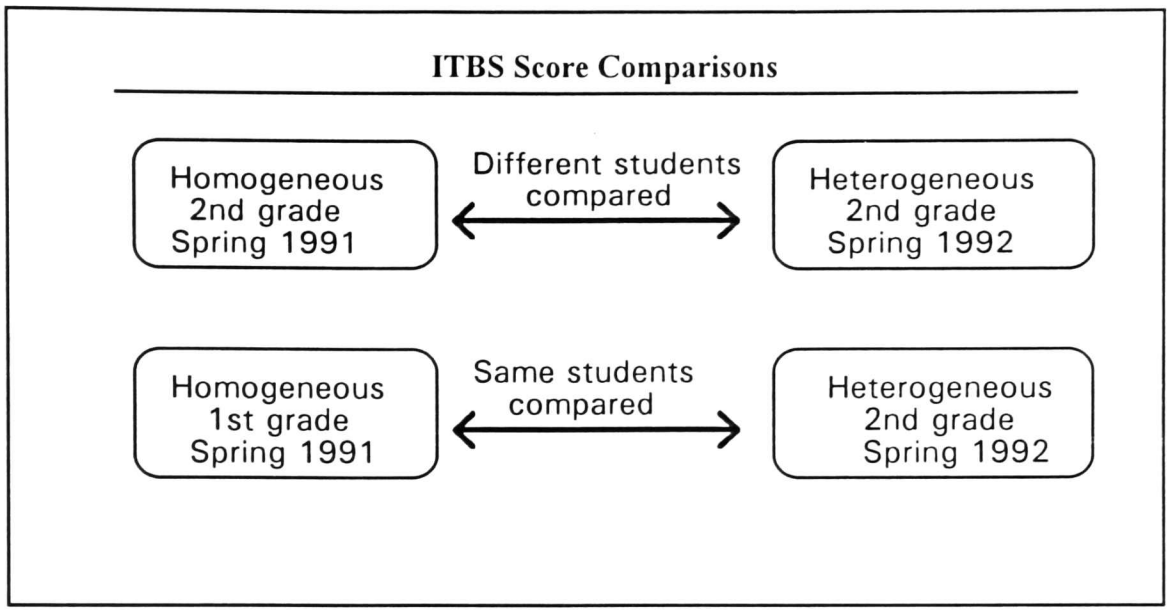
Standardized achievement test scores on the verbal and math sections of the Iowa Test of Basic Skills for the years *1990-1991* and *1991-1992* were compared in order to evaluate differences in achievement. T-test and F-test statistics were used for this comparison.

Procedure for Data Collection

The Board of Education provided a list of matched scores on the Iowa Test of Basic Skills (ITBS) for students in grades 1-2 for both *1990-1991* and *1991-1992*. Relevant scores included national percentile rankings on the math and verbal sections. To preserve anonymity, the researcher did not have personal access to the student records. The Board of Education representative presented only the national

Figure 3

Groups Compared Using the Iowa Test of Basic Skills



percentile scores to the researcher. Student names and other identifying information were not included in the data.

The Sample

As shown in Figure 3, two types of comparisons were made. In the first case, scores for homogeneously grouped second graders were compared with scores for heterogeneously grouped second graders. In the second case, statistical tests measured whether the national percentile ranking of individual students changed significantly as they moved from homogeneously to heterogeneously grouped classrooms. Data included verbal and math ITBS scores for all first grade students from Sallie Zetterower and Mattie Lively elementary schools for the 1990-1991 school year and for all second grade students for both the 1990-1991 and 1991-1992 school years. Other grades and years were not analyzed because ITBS scores were not available for them under both homogeneous and heterogeneous grouping situations.

Analysis of the Data

T-test statistics were calculated in order to ascertain if the mean scores for the two groups were significantly different. F-test statistics were calculated in order to ascertain if the distributions of scores were significantly

different for the paired groups in each comparison. T-test and f-test statistics were conducted for the four comparisons listed below.

Comparison 1: Mean math score for second grade students (homogeneously grouped, 1990-1991) versus mean math score for second grade students (heterogeneously grouped, 1991-1992)

Comparison 2: Mean verbal score for second grade students (homogeneously grouped, 1990-1991) versus mean verbal score for second grade students (heterogeneously grouped, 1991-1992)

Comparison 3: Mean math score for first grade students (homogeneously grouped, 1990-1991) versus mean math score for *same* students in second grade (heterogeneously grouped, 1991-1992)

Comparison 4: Mean verbal score for first grade students (homogeneously grouped, 1990-1991) versus mean verbal score for *same* students in second grade (heterogeneously grouped, 1991-1992)

Research Method 2: Teacher Questionnaires

Teacher questionnaires were also used to collect data. The 46 question instrument assessed many of the student and

teacher effects. The primary school teacher questionnaire is presented in Appendix A and the upper elementary school teacher questionnaire is presented in Appendix B.

The Sample

The teacher questionnaire was administered to all teachers at Mattie Lively, Sallie Zetterower, and Julia P. Bryant elementary schools (hereafter referred to throughout this document as "the target schools") during April of 1993. Because all of the teachers completed the questionnaire, the researcher was able to produce summary statistics that represent the entire population of target school teachers. Only questionnaires completed by teachers who had taught the same grade in Bulloch County schools during both *1990-1991* and *1991-1992* were used for grouping comparisons. This eliminated the perception of student and teacher effects due to switching schools or grades.

Only the responses of regular classroom teachers were used to analyze the hypotheses of the study. The students spend most of the day under the supervision and instruction of a regular classroom teacher, and these teachers are the most greatly affected by the grouping change. The responses of special education teachers, physical education teachers, art teachers and music teachers were not included in the

analysis. The distribution of respondents by school and grade is presented in Table 4.

Instrument Development

All aspects of the instrument were developed in consultation with Board of Education representatives, Center for Rural Health and Research administrators, and the thesis director for this study. Prior to contracting this independent analysis of grouping effects, the Board of Education's central office had conducted an informal assessment of the grouping change in which they identified the variables they wished to examine in this study. The Board requested that only a few questions be asked for each variable in order to avoid placing an undue burden on teachers to fill out a lengthy questionnaire.

Instrument Content

The teacher questionnaire contained a total of 46 questions organized into four sections. Section A covered the number of years of experience as a full time teacher. In section B, teachers reported background information such as grade school and teaching area and evaluated lesson planning, lesson presentation, classroom management, student

Table 4

Distribution of Respondents by School

SCHOOL	ALL TEACHERS		REGULAR CLASSROOM TEACHERS	
	n	Percent	n	Percent
Sallie Zetterower Grades 1 - 2	27	25.2%	14	26.4%
Mattie Lively Grades 1 - 2	19	17.8%	10	18.9%
Julia P. Bryant Grades 3 - 5	61	57%	29	54.7%
TOTAL	107	100%	53	100 %

discipline, and student self-esteem for the 1992-93 school year when they taught heterogeneously grouped classes. In section C, teachers reported the same background information and evaluated the same teaching activities for the most recent year that they taught homogeneously grouped classes. Section D included questions concerning teacher opinions and experiences regarding homogeneous and heterogeneous grouping.

All items were closed-ended except items in which teachers described positive and negative experiences they had with homogeneous and heterogeneous grouping. Separate questionnaires were prepared for the primary school teachers (Appendix A) and the upper elementary school teachers (Appendix B). These two versions of the questionnaire were identical except for items addressing demographic information (school names and the date heterogeneous grouping was implemented).

Procedure for Administering the Questionnaire

The teacher questionnaire took about 45 minutes to complete. In light of the lengthy completion time and sensitive topic, the following administration guidelines were followed.

1. The questionnaire was administered by the researcher rather than by school administrators. The informed consent cover letter and instructions were read aloud to the group of respondents. A copy of the cover letters for primary and upper elementary versions of the questionnaire are presented in Appendix C and Appendix D respectively.
2. Questionnaires were self-administered in a group setting in order to reduce the amount of discussion between teachers about questionnaire items prior to completing the questionnaire.
3. The questionnaire was administered during a regular staff meeting so that it did not interfere with the teachers' regular duties or free time.
4. Questionnaires were completed before individual interviews were conducted. This ensured that interviewed teachers shared the common experience of completing the questionnaire.
5. Several steps were taken to ensure teacher and student anonymity.
    a. No identifying information appeared on the questionnaire.

b. Teachers were instructed not to reveal their identity or the identity of any student in their responses.

c. Teachers were given a blank envelope in which to place their completed questionnaires. The envelopes were sealed and placed into a collection box by the respondent.

d. Only the researcher had access to the completed questionnaires after the sealed envelopes were placed in the collection box. Findings were reported in aggregate form only.

Operationalization of Variables

The dependent variables were operationalized within the teacher surveys as follows.

Student Self-Esteem

Items 19 and 35 on the primary school questionnaire and items 16 and 32 on the upper elementary questionnaire measured teacher perception of student self-esteem under heterogeneous and homogeneous grouping. The question was introduced with the following definition: "Students with high self-esteem tend to feel good about themselves, their

abilities, and their school experience while students with low self-esteem tend to lack confidence." The questions read, "Overall, how would you rate your class of [school year]'s confidence and self-esteem?" Five-point Likert responses and coding included "Excellent" (5); "Very Good" (4); "Average" (3); "Below Average" (2); and "Very Bad" (1), with higher number indicating higher self-esteem.

Lesson Planning

Items 8 and 24 on the primary school questionnaire and items 5 and 21 on the upper elementary questionnaires measured teacher perception of the difficulty of lesson preparation under heterogeneous and homogeneous grouping respectively. The questions read, "In general, how difficult was it to prepare lesson plans that would suit your students' range of abilities during the [date of school year] school year?" Four-point Likert responses and coding included "Very Easy" (1); "Moderately Easy" (2); "Moderately Difficult" (3); and "Very Difficult" (4), with the higher number indicating greater difficulty.

Lesson Presentation

Items 9 and 25 on the primary school questionnaire and items 6 and 22 on the upper elementary questionnaire

measured teacher perception of the difficulty of lesson presentation under heterogeneous and homogeneous grouping respectively. The questions read, "Thinking back over the [date of school year] school year, how difficult was it to teach to the range of academic abilities in your class on a typical day?" Four-point ordinal-level responses and coding included "Very Easy" (1); "Moderately Easy" (2); "Moderately Difficult" (3); and "Very Difficult" (4) with higher numbers indicating greater difficulty. In items 10 and 26 for primary teachers and questions 4 and 22 for upper elementary teachers, respondents were also instructed to "List effective strategies that you used this year [date of school year]." A list of the strategies and the frequency with which they were reported was compiled for the Board of Education but is not included in this report.

Classroom Discipline

Items 18 and 34 on the primary school questionnaire and items 15 and 31 on the upper elementary questionnaire measured teacher perception of discipline under heterogeneous and homogeneous grouping, respectively. The questions read, "Overall, how would you rate your class of [school year]'s behavior and discipline?" Five-point

responses and coding included "Excellent" (5); "Very Good" (4); "Average" (3); "Below Average" (2); and "Very Bad" (1), with higher numbers indicating better discipline.

Classroom Management

Items 11 and 27 on the primary school questionnaire and items 8 and 24 on the upper elementary questionnaire measured teacher perception of the success of their classroom management skills under heterogeneous and homogeneous grouping. The questions read, "Overall, how would you rate your classroom management skills and programs during the [date of school year] school year?" Four-point ordinal level responses and coding included "Very Successful" (1); "Moderately Successful" (2); "Moderately Unsuccessful" (3); and "Very Unsuccessful" (4), with higher numbers indicating greater difficulty.

Open-Ended Questions

Section D of the teacher questionnaire contained five questions regarding teachers' opinions about homogeneous and heterogeneous grouping and four questions about what resources and training teachers need to make their teaching in the heterogeneous cluster grouped classroom most effective. Findings regarding these questions were

summarized in the final report to the Board of Education, but they are not presented in this study because they are not directly related to the hypotheses of this study.

Questions 43 and 45 in Section D were open-ended and asked teachers to describe a single incident in their teaching experience that illustrates how heterogeneous grouping was an asset and a single incident in which heterogeneous grouping made a problem more difficult. The responses to these questions were useful in helping to generally explain the responses to some of the quantitative questions in Sections B and C.

Research Method 3: Teacher Interviews

Thirty-minute interviews with teachers from each target school were conducted in order to gather qualitative data on student effects, teacher effects, and ability grouping issues. A copy of the teacher interview schedule is presented in Appendix E. A total of eighteen interviews, with six teachers from each target school, were conducted.

The Sample

Teachers were randomly selected from those who volunteered in order to enhance the generalizability of

their comments. The sample was selected from each target school according to the following procedure.

1. Selection of interview respondents occurred at the open faculty meeting where the questionnaire was administered.
2. The researcher explained the nature of the interview, including the topics that would be discussed, time involved, and the fact that the interview would be taped. The Research Specialist emphasized the following points concerning anonymity.
    a. Interviews were confidential.
    b. Tapes of the interviews would be heard only by the researcher and the secretary who would type the transcript.
    c. Teachers' names would never be attached to their comments, and tapes would be labeled only with the school name.
    d. The tapes would be destroyed as soon as the study was completed.
3. All teachers who were "qualified" and were willing to be interviewed were asked to fill out an Interview Ballot. Teachers were considered qualified if they had at least 5 years teaching experience *and* had taught at

a target school under homogeneous grouping. A copy of the interview ballot is presented in Appendix F.

4. While the teachers looked on, a representative teacher randomly selected six ballots by drawing them from the "hat." The teachers named on these ballots constituted the teacher interview sample.
5. Participating in an interview was entirely voluntary. Teachers were allowed to decline an interview even after their names were drawn. Only one teacher declined.

Once the interview respondents were selected, the researcher made appointments with each teacher to meet during school hours for the interview. The principal at each school designated an office where teachers could be interviewed in private. The interviews were conducted according to schedule, recorded, transcribed, and analyzed.

The Instrument

In the interview session, teachers were asked to rate and discuss seven areas (dependent variables) of school life under homogeneous and heterogeneous grouping. These included discipline, teacher morale, student self-esteem, student motivation, lesson preparation, classroom

management, and evaluation of student performance. In addition, teachers were asked to describe critical incidents that would help the researcher understand the impact of grouping styles on teachers and students. The specific instructions for reporting a positive critical incident were as follows.

> Without revealing any students' identity, please describe one situation in which you feel heterogeneous grouping has contributed positively to a student's development. List any training or resources which helped make this a positive situation.

Teachers were also asked to report a negative critical incident using the similar instructions. A copy of the interview schedule is presented in Appendix E.

Institutional Review Board Approval

In all matters of data collection, analysis, and reporting, the researcher was bound by high standards of ethics and confidentiality enforced by Georgia Southern University's scientific misconduct regulations. A full description of methodology, instruments, and procedures was approved by the Georgia Southern University Institutional Review Board before data collection began. A copy of the Institutional Review Board approval letter is presented in Appendix G.

Chapter Summary

Chapter III examines the research design for the study. A triangulated research design was used to collect both quantitative and qualitative data. Data were collected through an analysis of the students' standardized test scores, a teacher questionnaire, and in-depth interviews conducted with a sample of 18 teachers. The methodological procedures, the sample, the instrument, and the operationalization of the variables are explained for each methodology.

CHAPTER IV

RESEARCH FINDINGS

This chapter presents findings pertaining to each hypothesis. Student achievement was assessed through the analysis of standardized test scores. Student discipline, student self-esteem, difficulty of lesson preparation, difficulty of lesson presentation, and difficulty of classroom management are examined using both the teacher questionnaire responses and in-depth teacher interviews. Teacher morale was addressed only through in-depth interviews with teachers. As shown in Table 4, a total of 107 teachers completed the teacher questionnaire. Only responses from the fifty teachers who taught grades one to five in a target school under both homogeneous and heterogeneous grouping were included in the statistical analyses of questionnaire items.

Student Effects

This section addresses the findings regarding student achievement and teacher perception of student self-esteem.

Student Achievement

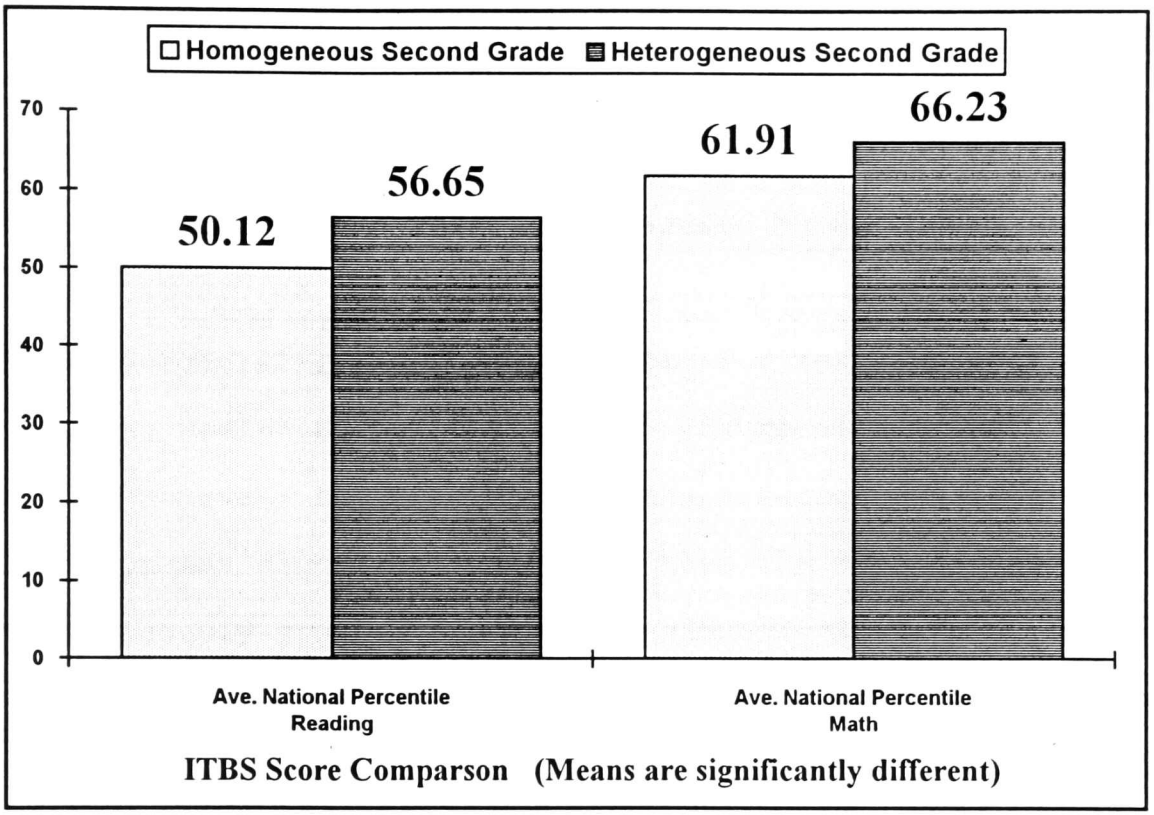
The effects of homogeneous and heterogeneous grouping on student achievement were analyzed using the national percentile ratings on the math and verbal sections of the Iowa Test of Basic Skills. As shown in Figure 3, two comparisons were made. First, the scores of a homogeneous second grade were compared with the scores of a heterogeneous second grade. Second, the scores of a homogeneous first grade were compared with the scores of the same students in the second grade under heterogeneous grouping. In all cases the data were analyzed using a significance level of $p \leq .05$.

Comparison of Homogeneous and Heterogeneous Second Grades

Second grade scores from the *1990-1991* and *1991-1992* school years were compared through t-test analyses in order to assess the relative effects of homogeneous and heterogeneous grouping. There were 355 individual scores in the homogeneous verbal sample (*1990-1991*) and 373 individual scores in the heterogeneous verbal sample (*1991-1992*). As measured by national percentiles, the mean score for homogeneous grouping was 50.12, and the mean score for heterogeneous grouping was 56.65 percentile (see Figure 4). T-test analyses reveal that the mean of the heterogeneously

Figure 4

ITBS Score Comparison: Homogeneous Second As Compared to Heterogeneous Second Grade



grouped students was significantly higher than the mean of the homogeneously grouped students (t-value = -2.84, $p \leq .05$). The distribution of scores was similar for both years as reflected by the f-value of 1.03 ($p \leq .05$).

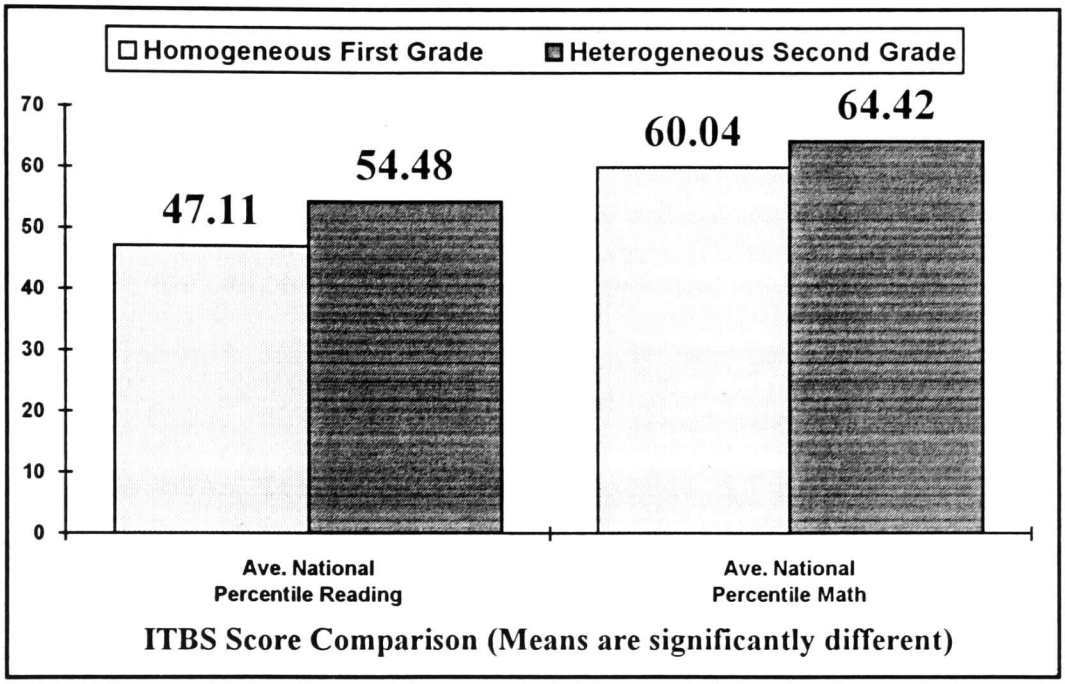
There were 357 individual scores in the homogeneous math sample (*1990-1991*) and 372 individual scores in the heterogeneous math sample. As measured by national percentiles, the mean score for homogeneous grouping was 61.91 percentile, and the mean score for heterogeneous grouping was 66.23 percentile (see Figure 4). T-test analyses reveal that the mean of the heterogeneously grouped students was significantly higher than the mean of the homogeneously grouped students (t-value = -2.02, $p \leq .05$). The distribution of scores was similar for both years as reflected by the f-value of 1.03 ($p < .05$).

Comparison of Homogeneous First Grade and Heterogeneous Second Grade

As shown in Figure 5, national percentile rankings were compared for students who attended first grade during the *1990-1991* school year and second grade during the *1991-1992* school year. These students were homogeneously grouped during first grade and heterogeneously grouped during second grade. There were 317 individual scores for both the first

Figure 5

ITBS Score Comparison: Homogeneous First As Compared to Heterogeneous Second Grade



and second grade samples. As measured by national percentiles, the mean for first grade was 47.11 percentile, and the mean for second grade was 54.48 percentile. T-test analyses revealed that the second grade mean was significantly higher than the first grade mean with a t-value of -5.51 ($p \leq .05$). F-test analyses reveal that the distribution of first and second grade scores was statistically similar with an f-value of 1.25 ($p \leq .05$).

There were 314 individual scores for both the first and second grade samples for math. As measured by national percentiles, the mean for first grade was 60.04 percentile, and the mean for second grade was 64.42 percentile. T-test analyses reveal that the second grade mean was significantly higher than the first grade mean with a t-value of -3.80 ($p \leq .05$). F-test analyses reveal that the distribution of first and second grade scores was statistically similar with an f-value of 1.02 ($p \leq .05$).

Summary of Impact on Achievement

ITBS scores were compared in order to assess the impact of homogeneous and heterogeneous grouping on standardized test scores. Each of these comparisons reveals that students performed better academically under heterogeneous grouping than under homogeneous grouping. However, several

limitations need to be recognized. First, ITBS data were available only for first and second grades. Second, heterogeneous grouping had been implemented for less than two years. Additional longitudinal data are needed to track student performance trends.

Lastly, it is important to remember that, although improved academic achievement is indicated, it is not known what factor or factors caused the improvement. Many changes have occurred in the Bulloch County school system over the past three years that may have contributed to improved academic performance. These changes included, but have not been limited to, the transition from homogeneous to heterogeneous grouping, the implementation of whole language reading programs, improved adult-to-student ratios, revised discipline policies, increased school counseling services, and additional paraprofessional help in the classroom.

It is also not possible to compare the rate of improvement for students in other grades because appropriate test scores for the ITBS were not available. It is clear, however, that there was statistically significant improvement in the national percentile rankings for the students examined in this study. The transition from homogeneous to heterogeneous ability grouping did not have a

deleterious effect on student achievement within this specific context.

Teacher Perception of Student Self-Esteem

As shown in Table 5, teachers evaluated the self-esteem of their students under homogeneous and heterogeneous grouping. The range was from 1 (very bad) to 5 (excellent). The mean for homogeneous grouping was 3.35, and the mean for heterogeneous grouping was 3.31. T-test analyses revealed that these means were not significantly different. Distribution of responses by grade are presented in Table 6.

Teachers gave a number of examples of students whose self-esteem appeared to suffer under homogeneous grouping because they were labeled "slow learners." Following are some quotes taken from teacher interviews.

> I'll talk about students' [morale] . . . remarks coming off the playground, crying 'Am I dumb? So-and-so says I'm in this class because I'm dumb. So-and-so says you only teach dumb children.' And they are hearing this from parents. There is a difference. Like I said before, when you are in a classroom where students are all making 30s or 50s and are not doing that well, that's no incentive to do any better. . . . Also with the self-esteem within that group, they were always fighting each other and consequently being sent to the office. And that sort of lowers the self-esteem, being in trouble all the time. But, since they've been with this [heterogeneous] group, self-esteem has built up. They are achieving a lot better.

Table 5

Perception of Student Self-Esteem (all schools & grades)

	Homogeneous Grouping (N=49, Mean = 3.35)		Heterogeneous Grouping (N = 49, Mean = 3.31)	
	n	percent	n	percent
Excellent	4	10.2%	3	6.1%
Above Average	18	36.7%	14	28.6%
Average	20	40.8%	27	55.1%
Below Average	5	10.2%	5	10.2%
Very Bad	2	4.1%	0	0.0%
Totals	49	100.0%	49	100.0%
The t-value is -.22. The means are not different at p. $\leq$ .05..				

Table 6

Perception of Student Self-Esteem by Grade

	Primary Grades (1 - 2)				Upper Grades (3 - 5)			
	Homogeneous Grouping		Heterogeneous Grouping		Homogeneous Grouping		Heterogeneous Grouping	
	n	percent	n	percent	n	percent	n	percent
Excellent	4	16.7%	3	12.5%	0	0.0%	0	0.0%
Above Average	6	25.0%	8	33.3%	12	48.0%	6	24.0%
Average	9	37.5%	11	45.8%	11	44.0%	16	64.0%
Below average	3	12.5%	2	8.3%	2	8.0%	3	12.0%
Very Bad	2	8.3%	0	0.0%	0	0.0%	0	0.0%
Total	24	100%	24	100%	25	100%	25	100%

> I think it goes back to self-fulfilling prophecy. Your child is down here, and he can't do what he sees some of the others do, and they think they can. I think being in a heterogeneous group, the lower children can shoot for the stars. They see a lot of shining examples. Before [under homogeneous grouping] they had no idea. . . . They want to learn, and they are really motivated by it.

Teachers who proposed that low ability students felt inferior in heterogeneous classrooms did not offer any specific examples.

Teacher Effects

This section addresses the findings regarding the difficulty of lesson preparation, the difficulty of lesson presentation, the difficulty of maintaining classroom discipline, the difficulty of classroom management, and professional morale.

Difficulty of Lesson Preparation

Teachers were asked to rate the difficulty of lesson planning in their class under homogeneous and heterogeneous grouping. Table 7 and Figure 6 show the responses of all regular classroom teachers, grades one to five. The mean for the homogeneous year was 2.08 (high "easy"), and the mean for the heterogeneous year was 2.78 (low "easy"). T-test analyses revealed that teachers perceived lesson planning to be more difficult under heterogeneous grouping

Table 7

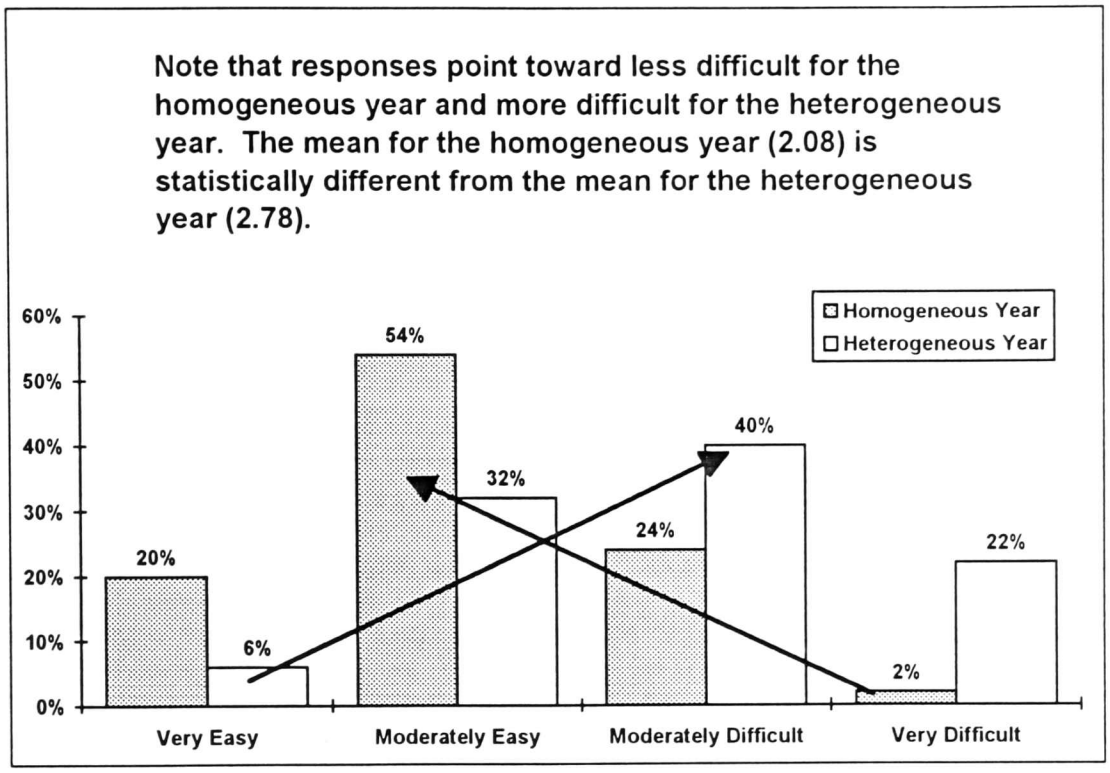
Perceptions of the Difficulty of Lesson Preparation

	Homogeneous Grouping (N=50, Mean =2.08)		Heterogeneous Grouping (N=50, Mean =2.78)	
	n	percent	n	percent
Very Easy	10	20.0 %	3	6.0 %
Moderately Easy	27	54.0 %	16	32.0 %
Moderately Difficult	12	24.0 %	20	40.0 %
Very Difficult	1	2.0 %	11	22.0 %
TOTALS	50	100 %	50	100 %

The t-value = 4.45. The means are significantly different at $p \leq .05$.

Figure 6

Difficulty of Lesson Planning



than under homogeneous grouping (t-value 4.45). Teacher perception of lesson plan difficulty was also analyzed by school and grade (see Table 8). Both primary and upper elementary school teachers indicated that lesson planning was more difficult for the heterogeneous year than for the homogeneous year. Table 8 shows that the difference in difficulty was greater for upper elementary school teachers than for primary school teachers.

Difficulty of Lesson Presentation

Teachers were asked to rate the difficulty of teaching the range of students in their class under homogeneous and heterogeneous grouping (see Table 9 and Figure 7). Teachers described the heterogeneous year as significantly more difficult than the homogeneous year (t-value 6.14). In terms of extraneous variables, it should be noted that the transition from homogeneous to heterogeneous grouping was accompanied by the transition from basil-based to whole language reading programs. The basil approach to teaching reading is involves the use of a controlled vocabulary textbook to teach small groups of ability grouped students. The whole language approach is geared toward individual students rather than to ability groups or the class as a

Table 8

Perception of the Difficulty of Lesson Preparation by Grade

	Primary Grades (1-2)				Upper Grades (3-5)			
	Homogeneous Grouping (Mean =2.0)		Heterogeneous Grouping (Mean =2.5)		Homogeneous Grouping (Mean =2.1)		Heterogeneous Grouping (Mean =3.0)	
	n	percent	n	percent	n	percent	n	percent
Very Easy	6	26.1 %	3	13.0 %	4	14.8 %	0	0.0 %
Moderately Easy	11	47.8 %	8	34.8 %	16	59.3 %	8	29.6 %
Moderately Difficult	5	21.7 %	9	39.1 %	7	25.9 %	11	40.7 %
Very Difficult	1	4.3 %	3	13.0 %	0	0.0 %	8	29.6 %
Total	23	100 %	23	100 %	27	100 %	27	100 %

Table 9

Perceptions of the Difficulty of Lesson Presentation

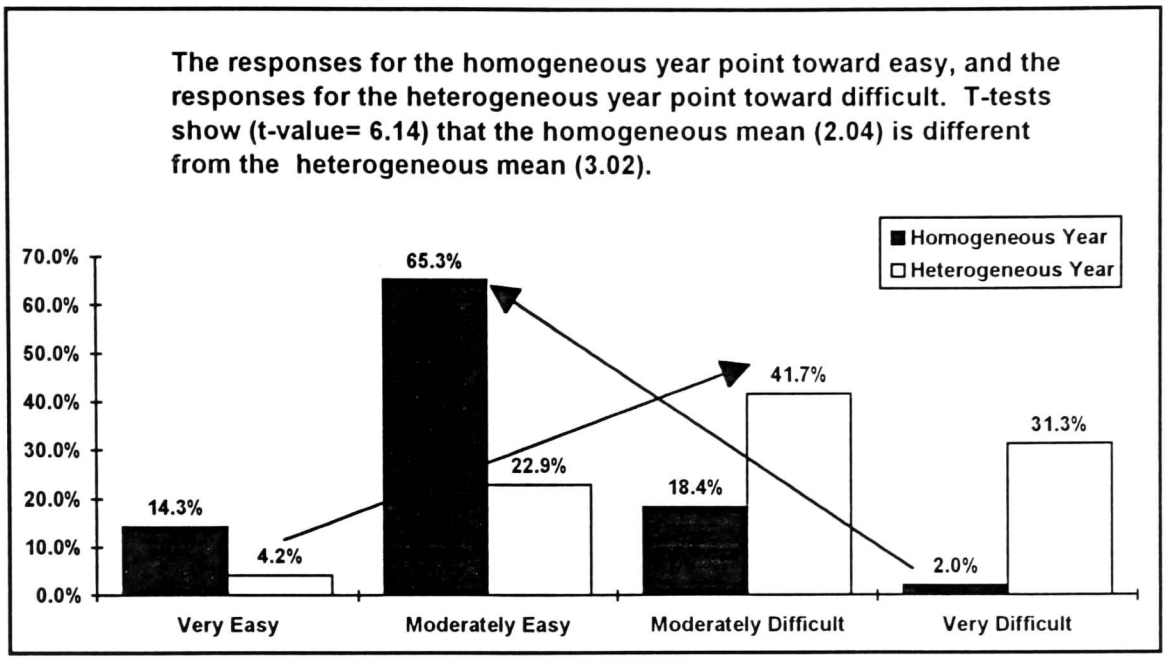
(all schools & grades)

	Homogeneous Grouping (N=50, Mean =2.04)		**Heterogeneous Grouping (N=50, Mean =3.02)**	
	n	percent	n	percent
Very Easy	7	14.3 %	2	4.2 %
Moderately Easy	32	65.3 %	11	22.9 %
Moderately Difficult	9	18.4 %	20	41.7 %
Very Difficult	1	2.0 %	15	31.3 %
Total	50	100 %	50	100 %

The t-value = 6.14 (means are different at $p \leq .05$).

Figure 7

Difficulty of Lesson Presentation (teaching the range)



whole and is more demanding in terms of lesson development and delivery in and of itself.

Many teachers felt that the whole language approach and heterogeneous grouping were more effective methodologies even though they required much more work. Other teachers were overwhelmed and frustrated by the change and simply did not know what to do. Following are some of the teachers' comments.

> You do more planning with the type of grouping that we have now [heterogeneous] because you have a wide span.
>
> The lesson plans are not that different to do, but the modification in the classroom presents a problem sometimes. It's how to put it across so everyone can understand.
>
> You know, it has been really hard, and it has kept me on my toes. It's made me stop and think about the learning style, what you really need to do for those that need help along the way. Whole language is a real challenge, putting it together. It makes me feel like I'm doing the job that I'm required to do.
>
> I feel like this reading program definitely challenges the high achievers. Each child will go as far as that child can and will. I see children write four or five page stories, and another child may write one or two sentences. They are given opportunities for enrichment.
>
> It takes more [preparation]. I think it is worth it, though. I have to plan for more individual type of things. I have seven children that are at the top of the class. I have to make sure they have things to work on individually, things that challenge them. It takes time to find those things. Then you have to find things for the low achievers as well.

> I hate to pat myself on the back, but I don't see a tremendous challenge. It hasn't been that much harder. There have been isolated situations. I have had to become more patient and consistent. Once I tried something and it worked, I carried on with it. For me, it has not been a drastic change.

> It's frustrating. You write what you think is a very good lesson plan, and you come in and work with the students and hope that the children can adjust. What each child does with it is different, and what I expect each child to do is different. When you repeat to certain children, to me it is frustrating. You are almost repeating things daily that some need to hear and some don't need to hear.

Teacher perception of the difficulty of lesson preparation (teaching the range) was also analyzed by school and grade (see Table 10). While both primary and upper elementary teachers described lesson presentation as moderately easy (mean = 2.1) under homogeneous grouping, upper elementary school teachers (mean = 3.2) found it more difficult to teach the range after heterogeneous grouping was implemented than did primary school teachers (mean = 2.7).

Difficulty of Maintaining Classroom Discipline

Teachers were asked to rate the behavior and discipline of their classes under homogeneous and heterogeneous grouping. Distributions are presented in Table 11. T-test analyses reveal that teacher perceptions of behavior under

Table 10

Perceptions of the Difficulty of Lesson Presentation by Grade

	Primary Grades (1-2)				Upper Grades (3-5)			
	Homogeneous Grouping (Mean =2.1)		Heterogeneous Grouping (Mean =2.7)		Homogeneous Grouping (Mean =2.1)		Heterogeneous Grouping (Mean =3.2)	
	n	percent	n	percent	n	percent	n	percent
Very Easy	4	17.4 %	2	8.7 %	3	11.5 %	0	0.0 %
Moderately Easy	14	60.9 %	8	34.8 %	18	69.2%	3	12.0 %
Moderately Difficult	4	17.4 %	7	30.4 %	5	19.2 %	13	52.0 %
Very Difficult	1	4.3 %	6	26.1 %	0	0.0 %	9	36.0 %
Total	23	100 %	23	100 %	27	100 %	27	100 %

Table 11

Perceptions of Discipline (all schools & grades)

	Homogeneous Grouping (N=50, Mean = 2.8)		Heterogeneous Grouping (N=50, Mean =2.8)	
	n	percent	n	percent
Excellent	4	8.0 %	5	10.2 %
Above Average	18	36.0 %	15	30.6 %
Average	15	30.0 %	19	38.8 %
Below Average	8	16.0 %	7	14.3 %
Very Bad	5	10.0 %	3	6.1 %
The t-value is -.17. The means are not different at $p \leq .05$.				

homogeneous and heterogeneous grouping were not significantly different with a t-value of -.17. Teacher perception of discipline was also analyzed by grade (see Table 12).

Teacher assignment procedures varied by school. Teachers in the lower elementary schools were assigned one class of students that remained with them for the entire day. Under homogeneous grouping, many teachers had been assigned the same level ability group year after year. Teachers who had taught high ability groups exclusively found discipline much more challenging (but not unmanageable) after moving to heterogeneous grouping. On the other hand, teachers who had taught lower ability groups exclusively were delighted that it was much easier to maintain discipline with a heterogeneously grouped classroom. Teachers who had taught the lowest groups stated that discipline used to be a major problem that consumed more than half of their instruction time and most of their energy. There was consensus among lower elementary teachers that mixed grouping improves discipline overall.

Upper elementary teachers at Julia P. Bryant were usually assigned different morning and afternoon classes. Under homogeneous grouping, one class was often higher ability and the other lower ability. Upper elementary

Table 12

Perceptions of Discipline by Grades

	Primary Grades (1-2)				Upper Grades (3-5)			
	Homogeneous Grouping		Heterogeneous Grouping		Homogeneous Grouping		Heterogeneous Grouping	
	n	percent	n	percent	n	percent	n	percent
Excellent	2	8.7 %	4	17.4 %	2	7.4 %	1	3.8 %
Above Average	8	34.8 %	8	34.8 %	10	37.0 %	7	26.9 %
Average	7	30.4 %	8	34.8 %	8	29.6 %	11	42.3 %
Below Average	3	13.0 %	3	13.0 %	5	18.5 %	4	15.4 %
Very Bad	3	13.0 %	0	0.0 %	2	7.4 %	3	11.5 %
Total	23	100 %	23	100 %	27	100 %	27	100 %

teachers stated that they experienced most of their discipline problems while teaching the lower ability groups. Teachers were split in their attitudes concerning homogeneous and heterogeneous grouping. About one-half of the teachers interviewed believed that confining "behavior problems" to one classroom reduced behavior problems overall. The sentiment that "one rotten apple spoils the whole bunch" was common. These teachers did not offer any illustrations to support this opinion.

Other upper elementary teachers believed that distributing the children with behavior problems across the classrooms improved behavior problems overall. They felt that when children with behavior problems were concentrated in lower ability classrooms, they "fed off each other" and were difficult to control. When assigned to classrooms with "regular" children, they tended to model positive behavior. Teachers cited numerous examples of students who demonstrated better behavior after being moved from a lower, homogeneous to heterogeneous classroom.

The following three points were common themes addressed by some teachers in the interviews. Selected direct quotes illustrate those points.

1. *Higher expectations improve discipline*

One teacher commented,

> I think discipline has been a lot better since the slow learners have been mingling with the fast learners. Last year [homogeneous] I had a class that was labeled as slow learners. Children from higher level classes would say that they are dumbbells, and they lived down to that. They live down to what is expected of slow learners. The discipline problems were very intense; it was chaos. Sometimes I just felt like giving up. This year [heterogeneous] that same group of kids are in different mixed classes. I've noticed that these kids seem to be much happier, and the discipline problems have almost ceased.

2. *Peer pressure from the rest of the class to behave and participate improves discipline.*

As one teacher commented,

> Students have a tendency to do what appears to have a greater influence on him. If a slow learner is in a class with a faster learner, and his behavior is good, in many cases the slow learner will try to act as the faster learner--or whatever environment he is in. Peer pressure has a really great enforcement on the kid and lets him see himself.

3. *Smaller class size improves discipline.*

As an upper elementary teacher explained,

> We have a smaller group, and it makes it easier to discipline now. When we were doing homogeneous grouping, I had a lot more children. I had 32 children at one time. Now I only have 23, which is great. It helps to have someone in the room to help all the time, but with a smaller number, I can manage just as well.

Difficulty of Classroom Management

Teachers were asked to rate the success of their classroom management under homogeneous and heterogeneous

grouping. Table 13 shows the responses of all regular classroom teachers, grades one to five. T-test analyses revealed that teacher perception of classroom management was *not* statistically different under homogeneous and heterogeneous grouping. As one teacher explained,

> I have a feeling that if a teacher is a good manager, she will find ways to manage regardless of type of group she has or the type of material she has. The frustrations are greater when you have the lower group; the management is more difficult. In some ways, it may be easier for the teachers now to work with their classroom management [under heterogeneous grouping]."

Teacher perception of changes in classroom management were also analyzed by grade (see Table 14).

Teacher Morale

Teachers in the target schools indicated that the following factors affected teacher morale: the magnitude of the grouping change, the sensitive nature of this change, negative parent input, social pressure, and lack of teacher empowerment. Teacher morale also varied by student grade and ability level.

Magnitude of the Grouping Change

Major organizational change is stressful and can impact morale negatively. Several teachers suggested that any

Table 13

Perceptions of the Difficulty of Classroom Management

(all schools & grades)

	Homogeneous Grouping (N=50, Mean =1.8)		Heterogeneous Grouping (N=50, Mean =1.9)	
	n	percent	n	percent
Very Successful	16	32.0 %	9	18.0 %
Moderately Successful	29	58.0 %	35	70.0 %
Moderately Unsuccessful	3	6.0 %	5	10.0 %
Very Unsuccessful	2	4.0 %	1	2.0 %
Total	50	100 %	50	100 %
The t-value = .98 (Means were *not* different at $p \leq .05$).				

Table 14

Perceptions of the Difficulty of Classroom Management by Grade

	Primary Grades (1-2)				Upper Grades (3-5)			
	Homogeneous Grouping		Heterogeneous Grouping		Homogeneous Grouping		Heterogeneous Grouping	
	n	percent	n	percent	n	percent	n	percent
Very Successful	7	30.4 %	7	30.4 %	9	33.3 %	2	7.4 %
Moderately Successful	14	60.9 %	13	56.5 %	15	55.6 %	22	81.5 %
Moderately Unsuccessful	1	4.3 %	3	13.0 %	2	7.4 %	2	7.4 %
Very Unsuccessful	1	4.3 %	0	0.0 %	1	3.7 %	1	3.7 %
Total	23	100 %	23	100 %	27	100 %	27	100 %

change as substantial as the grouping change would depress morale because every teacher is affected, and every teacher must adjust. As one upper elementary teacher observed, "Teacher morale has been a lot lower this year. It's been a new year for everyone, [even] veteran teachers, because they have been used to homogeneous grouping for so long."

Adjusting to the grouping change was further complicated by the introduction of the whole language approach to reading. As one teacher explained

> We're not only dealing with the [grouping] change but also to a totally new reading program. . . . Most of our teachers were only familiar with using the basil reading approach. So they were sort of hit with a double whammy last year in that they had to deal with those two factors at the same time.

Another teacher commented, "When you take someone who is structured by a teacher manual, and you take that away, and now you need to pick and choose a variety of activities, that's a big thing."

Sensitive Nature of the Change

The fact that grouping was a very sensitive issue affected teacher morale. One teacher pointed out, "On teacher morale, sometimes it is good; sometimes it's not. I think we've still got to remember that we made a major

grouping change that everyone has mixed feelings about."

Another teacher concluded,

> Teacher morale was not real high last year because of the controversy that was involved in the situation. Teacher morale in that respect wasn't related to children or school but to professional things. I would say it got very low at times but it didn't have anything to do with teaching or the [group of] children they had. It had to do with external factors.

Negative Parent Input

Many teachers, from all of the target schools, stated that parent actions lowered morale during the transition. One teacher explained that

> a stress [was] having to endure the myriad of parents who wanted to come up and observe and talk to the teachers about all of the changes. That was stressful to teachers, to have to deal with more parent visitation, and questioning of their methods.

Some parents also promoted negative attitudes that made it harder for teachers to do their jobs. As one teacher asserted,

> I can't see where heterogeneous grouping has harmed any students. I think what has really slowed the process down in heterogeneous grouping is . . . when they get negative comments from outsiders, maybe parents. I think parents and teachers and also educators should just let them be kids and put them into a group and not mention whether it's homogeneous or heterogeneous. I think things would go a lot better.

Social Pressure

Perhaps the factor that had the greatest short-term effect on teacher morale was the social pressure and tensions related to grouping change. It was not the intention of the school district to create racial and/or social class divisions, but homogeneous grouping had this effect. Teacher responses to *de facto* race segregation varied. At one end of the continuum, a teacher observed that, "It was mostly black in [the] below average groups. Most definitely this is a racial issue. Basically our community is split." At the other end of the continuum, another teacher stated that race segregation was natural because "realistically, we all know that minorities are slower learners because culturally they have not been exposed to as much as Caucasians."

One teacher stated that the school district's move to heterogeneous grouping was motivated by a fear of being labeled racist.

> I really feel that many decisions are made at the administrative level because of pressure from the NAACP and pressure from other groups. That may sound like a racist statement. I'm certainly not a racist. I'm more liberal than most people. I think our administrators are afraid of lawsuits. They are making decisions so that it will satisfy the NAACP, the Justice Department.

Another teacher explained how parents feared that grouping placement would affect their social standing in the community and suggested that children whose parents have much social capital may be placed in a higher ability group regardless of their standardized test scores.

> With homogeneous grouping, I would have parents come in after getting their child's [standardized achievement test scores]. They would come in tears because they were afraid that just because their child scored in the average range on the [test] that their child would be in an average group. Parents were pushing, pushing, pushing. They think it will hurt their little "social group." I know average children that are put in above-average classes because of their last name.

Tensions created by community and social class based resistance to heterogeneous grouping lowered teacher morale. This was especially true for teachers who openly supported the transition to heterogeneous grouping. Some teachers who spoke in favor of the change were ostracized in the work place as well as in their personal social life. One teacher offered the following explanation.

> There are a lot of teachers that don't speak to us [supporters of heterogeneous grouping] because they are in that [elite] social circle, and they do participate in a lot of things in the community in a social way. From that little circle, you are looked down upon by them just because you spoke up against something. There are a lot of teachers that are struggling with that. It is a really big thing.

During the transition period, at least two teachers received anonymous letters suggesting they resign from their

positions if they were not willing to support homogeneous grouping and reject heterogeneous grouping. Another teacher cried during the interview when she told how friends in her social circle had rejected her and refused to allow their children to play with her children because she had spoken out in support of heterogeneous grouping.

Lack of Empowerment

Some teachers, especially upper elementary teachers, felt that they had been given little or no opportunity to influence the decisions made by school district administrators, especially with regard to grouping. Following is one teacher's explanation and perspective.

> Teacher morale is the lowest it has ever been. First of all, teachers do not trust the administrators. As a whole, they feel like they are left to handle things by themselves and are very discouraged. [Some teachers] say they want to get out of here. I want to make my time and get out of here because they don't like what is going on. The children are being hurt, and decisions are not being made by the teachers. They are being made by the administrators that we feel are not in the best interest of the children. We are treated like we are at the bottom of the totem pole.

Variation by Grade and Ability Level

As discussed in the section "Difficulty of Maintaining Classroom Discipline," the change from homogeneous to

heterogeneous grouping affected teachers differently according to their past and current classroom assignments. Under homogeneous grouping, primary school teachers were usually assigned the same ability group year after year. Teachers who were assigned low ability classes found the change to heterogeneous grouping--and accompanying changes--a great relief. Table 15 summarizes how their classroom experience changed. Following are some teacher comments that address this issue.

> Teachers can get burned out pretty quick when you've got the low group and it is not rotated year to year until you retire. Teacher morale is much better [under heterogeneous grouping].

> There were some that taught the same class, some that had the low group, who would be burned out from teaching the ones with behavior problems. She spends most of her time disciplining. But now with them spread out, they are having less difficult problems and have been concentrating more with their teachings. It makes a difference [in morale] knowing that everyone has an equal number.

> Primarily you would see the change in the teachers who had the so-called low achievement groups because in our school, those teachers frequently had those groups year after year. They are raised in morale. You can say that it is better.

Labeling often had a negative affect on teacher and student morale. Teachers who taught low ability groups year after year were labeled less effective teachers by other teachers and parents. Many teachers brought up this problem in interviews. For example,

Table 15

Effects of Organizational Change Upon Teachers of Low Ability Groups

HOMOGENEOUS CIRCUMSTANCE	HETEROGENEOUS CIRCUMSTANCE
Taught only low ability groups	Taught mixed group
Had many discipline problems -- spent about 1/2 of instructional time trying to maintain discipline	Only a few discipline problems -- the norm of the class is now good behavior, so it is much easier to control the few children with behavior problems
No Para-professional help during the instructional day -- only 30 minutes before and after school	Para-professional for 1/2 day
Larger class size	Smaller class size
Labeled as a less effective teacher	Not labeled
Very few if any occasions to be proud of the students for outstanding work -- results: feel unsuccessful as a teacher.	Many more occasions to be proud of student achievements -- results: feel successful as a teacher

> A child came to me one day and said, 'My mama wants me out of here. She had talked to so and so and said you only teach dumb children.' You can imagine how it made me feel. I had a lot of parents question me and ask if I can challenge their children.
>
> Some teachers felt it was wrong to saddle certain teachers with the same type of group year after year in the same classrooms because teachers sort of acquire an identity of their own, and it was related to the type of group they taught. Parents would think a teacher was not good just because she taught a low group. I think this kind of labeling of teachers was a kind of depressing thing.

Organizational changes did not have as dramatic an effect on teachers who had been assigned higher ability students under homogeneous grouping. As a teacher commented, "It's easy to have all high ability children in one class. But it is not easy to have all low ability children in one class."

Class assignment also affected primary and upper elementary teachers differently. Under homogeneous grouping, upper elementary teachers usually taught separate morning and afternoon classes. Their ability assignments varied from year to year. One year a teacher could be assigned two high ability classrooms and another year two low ability or one high and one low ability classrooms. The main problem upper elementary teachers identified was difficulty in teaching the wider range of abilities in heterogeneous classes. This issue is discussed in greater detail in the section "Difficulty of Lesson Presentation."

Upper elementary teachers consistently found it more difficult to teach a wide range of students than did primary teachers. In part, this may be because upper elementary students demonstrate a wider range of abilities than primary students.

Support of Hypotheses

Data from the analysis of test scores, the teacher questionnaire, and the in-depth interviews supported the following hypotheses.

Hypotheses Regarding Student effects

H_1: Heterogeneously grouped students will perform better on the math section of the Iowa Test of Basic Skills than will homogeneously grouped students.

H_2: Heterogeneously grouped students will perform better on the verbal section of the Iowa Test of Basic Skills than will homogeneously grouped students.

H_3: Student self-esteem will be higher for low ability students under heterogeneous grouping than students assigned to low ability groups under homogeneous grouping.

Hypotheses Regarding Teacher effects

H_4: Lesson planning will be less difficult for teachers under homogeneous grouping than under heterogeneous grouping.

H_5: Lesson presentation will be less difficult under homogeneous grouping than under heterogeneous grouping.

H_6: Maintaining classroom discipline will be more difficult for teachers of low ability groups under homogeneous grouping than under heterogeneous grouping.

H_7: Overall classroom management will be less difficult under homogeneous grouping than under heterogeneous grouping.

H_8: Professional morale will be lower for teachers of low ability groups under homogeneous grouping than under heterogeneous grouping.

Chapter Summary

Chapter IV presented the findings derived from an analysis of all dependent variables in the study. Students who were heterogeneously grouped performed significantly better on standardized tests than students who were homogeneously grouped. Teacher questionnaire responses did not reveal any statistically significant differences in student discipline, student self-esteem, student motivation,

or difficulties related to classroom management between homogeneous and heterogeneous years. However, these analyses did reveal that planning lessons and presenting lessons was perceived to be more difficult under heterogeneous grouping than under homogeneous grouping. Teacher morale was negatively affected by the fact that the change in grouping took place in a politically and socially tense context Both teacher and student morale were negatively affected by the labeling that occurred under homogeneous grouping. Qualitative data gathered from interviews supported survey findings.

CHAPTER V

DISCUSSION

This formative program evaluation was conducted to measure student and teacher effects that may be related to the organizational change from homogeneous to heterogeneous classroom grouping within Bulloch County schools. Research methodologies included statistical analyses of standardized achievement test scores, a teacher questionnaire, and individual interviews with teachers, principals, instructional coordinators, and school counselors. These data were used to analyze differences in performance on standardized tests, student self-esteem, difficulty in planning lessons, difficulty in teaching the range of abilities in the classroom, classroom discipline, difficulty of classroom management, and teacher morale. Teacher attitudes regarding grouping style and teacher perceptions of training and resources needed to most successfully implement heterogeneous grouping were also assessed.

Discussion of Student Effects

Analysis of Iowa Test of Basic Skills scores revealed that second grade students who were heterogeneously grouped performed statistically significantly better than second grade students who were homogeneously grouped The same students performed significantly better on the 2nd grade ITBS under heterogeneous grouping than they had performed on the 1st grade ITBS under homogeneous grouping.

Although these analyses suggest that there has been academic improvement, it is not known what factor or factors caused the improvement. Many extraneous organizational and social factors exist that have impacted students and teacher effects during the past three years. These include, but are not limited to, the transition from a basil reading to whole language approach to reading, reduction in class size, increased number of paraprofessionals, additional school counseling services, and revised discipline policies. It remains clear that given the change in grouping and all extraneous variables, there was improvement in the national percentile rankings for the scores examined.

Teacher questionnaire responses did not reveal any statistically significant differences in student self-esteem between homogeneous and heterogeneous years. Primary teachers, who had taught only lower ability groups under

tracking, told many stories of how being labeled "dumb" or "low achiever" lowered the self-esteem of their students.

Discussion of Teacher Effects

Teacher questionnaire responses revealed that planning lessons and teaching the range of students were perceived to be more difficult under heterogeneous grouping than under homogeneous grouping. The higher the grade level, the more difficult these aspects of teaching were perceived to be. Qualitative data gathered from interviews supported survey findings.

Teacher questionnaire responses did not reveal any statistically significant differences in maintaining classroom discipline or in the difficulties related to classroom management between homogeneous and heterogeneous years. However, teachers who had formerly taught lower ability homogeneous classes stated in interviews that discipline was much improved in their classroom under heterogeneous grouping.

Teacher morale was affected by the fact that implementing heterogeneous grouping was a substantial organizational change, had been implemented rapidly rather than gradually, and was socially sensitive and stressful in nature. A transition of this magnitude required that each

teacher reorganize how they plan and carry out lessons. They had to reassess all of their teaching methods and regular routines to determine if these methods would meet the needs of a mixed ability class. Social pressure from parents and colleagues and negative input from parents tended to lower morale while the transition was being made. A few teachers even wept during the personal interviews when they explained how they had been rejected by peers and friends in the community because they publicly supported the change to heterogeneous grouping.

Both teacher morale and student self-esteem appeared to have been affected by negative labeling that occurred under homogeneous grouping. Teachers who had always been assigned to the lower groups under homogeneous grouping, explained how their self esteem and morale was lowered when peers and parents regarded them as "less qualified" teachers because they were assigned the low ability groups.

Teacher opinion about which grouping style is most effective varied. As a whole, teachers from all three target schools felt that homogeneous grouping was best for above average students, and heterogeneous grouping was best for average and below average students. One principal commented, "Heterogeneous grouping is probably the most fair way that everybody has a shot at an education."

Contextual Dynamics

An examination of the contextual dynamics surrounding this study may help explain the findings of the teacher questionnaire. The teacher questionnaire did not reveal statistically significant differences in student discipline, student self esteem, or classroom management. This may reflect the fact that the teachers held bipolar positions on grouping styles. The primary school teachers tended to support heterogeneous grouping while the upper elementary teachers tend to support homogeneous grouping. Since these two groups of teachers each make up about 50 percent of the sample, their responses may have canceled each other out.

Primary school teachers who had taught only lower ability grouped classes under homogeneous grouping found discipline to be much improved under heterogeneous grouping. This may reflect the fact that the organizational methods for assigning teachers to classes varied between primary and upper elementary schools under homogeneous grouping. In primary schools, teachers were usually assigned to teach the same ability level year after year while in the upper elementary school teachers rotated and taught each ability level at one time or another. This means that primary school teachers experienced a profound difference when they changed to heterogeneous grouping.

Another finding suggested by the teacher questionnaire is that the higher the grade level, the more teachers viewed lesson planning and lesson preparation as difficult. This is consistent with the general assessment that the range of ability within a grade level is naturally wider for higher grades regardless of the grouping style.

Strengths

Strengths of this study include use of methodological triangulation, contribution to the body of research on tracking, and applied value as a formative program evaluation for the local school district. The triangulated methodology included an analysis of ITBS scores for a saturated sample of first and second grade students, a teacher survey conducted on a saturated sample of teachers from the target schools, and in-depth interviews conducted with a sample of 18 teachers from the target schools. This study offers a micro analysis of tracking in a specific population, that of a politically conservative, rural, southern, school district. This study is complemented by many published and unpublished accounts of the Bulloch County change and will be valuable to future researchers who wish to conduct a longitudinal study of this Bulloch County case or compare its results to similar studies of other

populations (Page & Page, 1993). As a formative evaluation conducted for the Board of Education, this study helps to establish that the change to heterogeneous grouping has had no deleterious effects on the academic performance of students to date and may serve as a foundation for continued formative assessments.

Weaknesses

The limitations encountered in this study include issues of instrument validity for the teacher questionnaire, and the large number of extraneous variables.

Issues of Instrument Validity

Time constraints and funding limitations prevented the researcher from collecting certain types of empirical data. In order to serve the goals of the funding organization and work within specified limitations, the teacher questionnaire relied mostly on subjective reporting. It would have been useful to include some objective and empirical methods of defining the variables. For example, student self-esteem could be measured by administering an established self-esteem index directly to the students, and teacher morale could be measured using a standardized job satisfaction instrument. Other variables could be operationalized in

more objective terms on the teacher questionnaire. For example, difficulty of lesson preparation could be operationalized in terms of the actual time spent in lesson preparation. Actual classroom observation, in both homogeneous and heterogeneous context, could be used to gather data on student discipline.

Teachers had to report on their homogeneous grouping experiences retroactively on the teacher questionnaire. However, in the in-depth interviews, teachers recalled specific anecdotal stories from both homogeneous and heterogeneous teaching experiences with great clarity and detail. To an extent, this reinforces the validity of survey responses.

Extraneous Variables

Many changes have occurred in the Bulloch county school system over the past three years which may have affected any or all of the dependent variables in this study. The central office staff at the Board of Education office identified more than 20 changes that may have affected the student effects and teacher effects examined by this study. These changes included the transition from homogeneous to heterogeneous grouping, the implementation of whole language reading programs, improved adult-to-student ratios, revised

discipline policies, revised methods for administering special services, an increase in the number of school counselors, increased school counseling services, and more paraprofessional help in the classroom.

Future Research

Additional research is needed to fully understand the effects of tracking on students and teachers. The Board of Education should continue to collect and analyze data on the dependent variables in the target schools. Analyses can be made to determine if there is change over time. The questionnaires, interviews, and other methods of collecting data should be administered on an annual basis so that teachers do not have to answer questions retrospectively.

This study can be replicated in other educational systems and compared to similar studies in other cultural settings. Care should be given to observe behaviors and use objective indexes as appropriate. When possible, researchers should use standardized objective measures such as Rosenburg's self-esteem index (Rosenburg, 1965) to define variables.

Chapter Summary

Chapter V presents discussion of the findings of this study. Although the analysis of ITBS scores suggested academic improvement, it is not known what factors caused the improvement. Many extraneous variables that have impacted students and teachers were identified. The fact that the teachers were bipolar in their political positions regarding grouping styles may explain why no significant difference was found in discipline, student self-esteem, or classroom management in the analysis of the teacher questionnaire.

The strengths of the study are discussed, including it's methodological triangulation, contribution to research on tracking and value as a formative evaluation for the Board of Education. Weaknesses discussed include issues of instrument validity and extraneous variables. Additional research is needed to fully understand the effects of tracking.

BIBLIOGRAPHY

Allan, S.D. (1991). Ability-grouping research reviews: What do they say about grouping and the gifted? Educational Leadership, 48(6), 60-65.

Anderson, L., ed. (1992, October 13). BOE makes sound decision on grouping. Statesboro Herald p. A6.

Barr, R., & Dreeben, R. (1991). Grouping students for reading instruction. In R. Barr, M. L. Kamil, P. B. Mosentual, & P. D. Pearson (Eds.), Handbook of reading reaearch, vol. 2 (pp. 885-910). White Plains, NY: Longman.

Bice, B.(1992, May 13). News release to Statesboro Herald.

Braddock, J. H., & McPartland, J. M. (1990). Alternatives to tracking. Educational Leadership, 47(7), 76-79.

Braddock, J. H. & Slavin, R. E. (1992). Life in the slow lane: A longitudinal study of effects of ability grouping on student achievement, attitudes, and trends. Baltimore, MD: Johns Hopkins University, Center for Research on Effective Schooling for Disadvantaged Students.

Braddock, J. H. & Slavin, R. E. (1994). Why ability grouping must end: achieving excellence and equity in American education. In H. Pool & J. A. Page (Eds.), (1994). Beyond tracking: finding success in inclusive schools. Bloomington, IN: Phi Delta Kappa.

Brehm, S. & Kassin, S. (1990). Social Psychology. Boston: Houghton Mifflin.

Brophy, J. (1986). Teacher influences on student achievement. American Psychologist, 41(10), 1069-1077.

Bulloch County Schools (1991). Classroom Assignment by Ability. Unpublished background paper.

Committee of conserned educators against homgeeous grouping at Sally Zetterower Primary School.(1990). Unpublished report submitted to the Bulloch County Committee for At-Risk Students.

Cooley, C. H. (1902). Social Organization. New York: Scribner.

Cooper, H. & Good, T. (1983). Pygmalion grows up: Studies in the expectation communication process. New York: Longman.

Deal, C. (1991, October 13). In support for tracking [Letter to the editor]. Statesboro Herald, p. A6.

Dewey, J. (1916). Democracy and education: An introduction to the philosophy of education. New York: Macmillan.

Eder, D. (1981). Ability grouping as a self-fulfilling prophecy: A microanalysis of teacher-student interaction. Sociology of Education, 54,151-162.

Gamoran, A.(1987). Orginization, instruction, and the effects of ability grouping: Comment on Slavin's "best-evidence synthesis." Review of Educational Research, 57,341-345.

Garner, H. & Hatch, T. (1989) Multiple intelligences go to school: educational implications of the theory of multiple intelligences. Educational Researcher, 11, 4-10.

George, P. (1992). How to untrack your school. Alexandria, Virginia: Association for supervision and curriculum development.

Goldberg, M. L., Pasow, A.H., & Justman, J. (1966). The effects of ability grouping. New York: Teachers College Press.

Good, T. L., & Marshall, S. (1984). Do students learn more in heterogeneous or homogeneous groups?. In P. Peterson, L. C. Wilkinson, & M. Hallinan (Eds.), The social context of instructon: Group orginization and group processes (pp.15-38). New York: Academic Press.

Good, T. L., & Brophy, J. E. (1984). Looking in classrooms (third ed.). New York: Harper & Row.

Good, T., & Brophy, J. (1987). Looking in classrooms (4th ed.). New York: HaperCollins.

Gunter, R. (1991, October 20). Grouping is just another kind of Jim Crow law [Letter to the editor]. Statesboro Herald. p. A6.

Harris, M. J., & Rosenthal, R. (1985). Mediation of interpersonal expectancy effects. Psychological Bulletin, 97, 363-386.

Hiebert, E. H. (1987). The context of instruction and student learning: an examination of Slavin's assumptions. Review of Educational Research, 57,337-340.

Howell, E. (1991, October 3). Teachers voice opinions over Grouping. Statesboro Herald. p. A1.

Howell, E. (1991, October 5). Mixed classes taxing on teachers. Statesboro Herald. p. A1.

Howell, E. (1991, October 9). BOE hears both sides argue grouping: board meeting largest ever. Statesboro Herald. p. A1.

Irvine, J. (1985). Teacher communication patterns as related to the race and sex of the student. Journal of Educational Psychology, 78, 338-345.

Julia P. Bryant Report. (1992). Unpublished report.

Jussim, L. (1986). Self-fulfilling prophecies: A theoretical and integrative view. Psychological Review, 93, 429-445.

Kerckhoff, A. (1986). Effects of ability grouping in British secondary schools. American Sociological Review. 51, 842-858.

Lee, D., (speaker). (1991). Remarks at October 8, 1991 meeting of the Bulloch County Board of Education. (video recording). Statesboro, GA: Northland Cable News.

Lewis, A. C. (1990). tracking and the natioal goals. Phi Delta Kappan, 72, 100-101.

Macionis, J. J. (1994). Society: The basics. Englewood Cliffs, New Jersey: Prentice Hall.

Mead, G. H. (1934). Mind, self, and society. Ed. C. W. Morris. Chicago: University of Chicago Press.

Merton, R. K. (1957) Social Theory and Social Structure. New York: Free Press.

Miller, J. (1991, September 21). [Letter to the editor]. Statesboro Herald. p. A6.

Milner, L (1991, September 30). Group urged to fight for achievement groupings. Savannah Morning News p. C1.

Mulkey, L. M. (1993). Sociology of Education. New York: Holt,Rinehert, Winston.

Noland, T. K. (1985). The effects of ability grouping: A meta-analysis of research findings. Unpublished doctoral dissertation, University of Colorado.

Oakes, J. (1982). The reproduction of inequity: The content of secondary school tracking. Urban Review. 14, 107-120.

Oakes, J. (1985). Keeping track: How schools structure inequality. New Haven, CT: Yale University Press.

Oakes, J. (1988). Tracking: Can schools take a different route? NEA Today, 6(6), 41-47.

Oakes, J. (1992). Can tracking research inform practice? Technical, normative, and political considerations. Educational Researcher. 21(4), 12-21.

Ogletree, E. L. (1968). Research verifies ill effects of ability grouping on inner-city children. Phi Delta Kappan. 50, 233.

Page, J. & Page, F. (1993). Tracking and research-based decision making: A Georgia school system's dilemma. International Journal of Educational Reform, 2, 407-417.

Page, S. & Rosenthal, R. (1990). Sex and expectations of teachers and sex and race of students as determinants of teaching behavior and student performance. Journal of School Psychology, 28, 119-131.

Persell, C. H. (1977). Education and inequality: A theoretical and empirical synthesis. New York: Free Press.

Pool, H & Page, J. A. (Eds.), (1994). Beyond tracking: Finding success in inclusive schools. Bloomington, ID: Phi Delta Kappa.

Pool, H. & Page, J. A. (1994). Setting the stage: beyond tracking to what?. In H. Pool & J. A. Page (Eds.) (1994). Beyond tracking: finding success in inclusive schools. Bloomington, ID: Phi Delta Kappa.

Reuman, D. A. (1989). How social comparison mediates the relation between ability-grouping practices and students' achievement expectancies in mathematics. Journal of Educational Psychology, 81, 178-189.

Riggs, J. (1991, September 24). Reader disputes grouping research [Letter to the editor]. Statesboro Herald, p. A6.

Rosenbaum, J. E. (1989). Social implications of educational grouping. Review of Research in Education, 8,361-401.

Rosenbaum, J. E. (1976). Making inequality: The hidden curriculum of high school tracking. New York: John Wiley & Sons.

Rosenburg, M. (1965). Society and the adolescent self-image. Princeton, NJ: Princeton University Press.

Rosenthal, R. (1985). From unconscious experimenter bias to teacher expectancy effects.In J. B. Dusek, V. C. Hall, & W. J. Meyer (Eds.), Teacher expectancies (pp. 37-65). Hillsdale, NJ: Erlbaum.

Rosenthal, R. & Jacobson, L. (1968). Pygmalion in the classroom: Teacher expectation and pupil's intellectual development, New York: Holt, Rinehart and Wilson.

Russell, B. A. (1991, September 17). School board wrong to eliminate grouping [Letter to the editor]. Statesboro Herald. p. A6.

Sarthory, J. A. (1968). The effects of ability grouping in multi-cultural school situations. Dissertation Abstracts, 29, 451A. (University Microfilms No. 68-11, 664).

Schafer, W. & Olexa, C. (1971). Tracking and opportunity: The locking out process and beyond. Scranton, PA: Chandler.

Sheppard, K. (1991, October 6). Grouping fosters elitist view for high achievers [Letter to the editor]. Statesboro Herald, p. A6.

Slavin, R. (Fall 1987) Ability grouping and student achievement in elementary schools: a best-evidence synthesis. Review of Educational Research. 57, 293-336.

Slavin, R. E. (1988). Synthesis of research on grouping in elementary and secondary schools. Educaitonal Leadership, 46(1), 67-77.

Slavin, R. E. (1990). Achievement effects of ability grouping in secondary schools: A best evidence synthesis. Review of Educational Research, 60,471-499.

Smith, W. A., Sr. (1991). Grouping's facade to maintain segregation [Letter to the editor].. Statesboro Herald, (October 6):A6.

Smith, W. (1992). Report to the commitee to study grouping in the elementary schools. unpublished report.

Sorensen, A. B., 7 Hallinan, M. T. (1986). Effects of ability grouping on growth in academic achievement. American Educational Research Journal, 23, 519-542.

Strickland, D. (1993). Student effects of ability grouping: An examination of grades 1-5. Paper presented at the Annual Meeting of the Georgia Sociological Association, May 1993.

Thomas, W. I. & Thomas, D. S. (1928). The Child in America. New York: Knopf.

Turner, J. H. (1991). The structure of sociological theory. Belmont, CA: Wadsworth Publishing Company.

United States of America v. Board of Education of Bulloch County Georgia (1971). Civil Action No. 462, United States District Court for the Southern District of Georgia, July 1, 1971.

Wheelock, A. (1991). Crossing the tracks: How "untracking" can save America's schools. New York: New Press.

Wiggins, J., Wiggins, B. & Vander Zanden, J. (1994). Social Psychology (5th Ed.). New York: McGraw-Hill, Inc.

Appendix A Primary School Teacher Questionnaire

Part A:

Years of Experience

1. Including this school year, how many years have you taught full-time? ____ years

Part B:

The questions in Part B deal specifically with this school year 1992-93 when heterogeneous cluster grouping was in force. Please answer each of the following questions only in regards to the 1992-1993 school year.

Note: Heterogeneous cluster grouping was in force in the 1991-92 school year and the 1992-93 school year. With the exception of questions 5, 6 and 7, all of the questions in Part B are in regard to the 1992-93 school year. Homogeneous grouping was in force in school year 1990-91 and the years before 1990. The questions in Part C (questions number 20 to number 35), will deal with the 1990-91 school year.

Background Information

2. What grade did you teach during **this** school year 1992-1993? (Circle one:)

   First Second Other: (explain)_____

3. In which school did you teach during **this** school year 1992-1993 ? (Circle one:)

   Mattie Lively Sallie Zetterower Other: _____

4. What was your teaching area during **this** school year 1992-1993 ? (Circle one:)

   Regular classroom Art Music Physical Ed.

   Resource SPED Self Contained SPED Chapter One

   Gifted Other Write in: _____

5. What grade did you teach during **last** school year 1991-1992? (Circle one:)

   First Second None Other: (explain)_____

6. In which school did you teach during the **last** school year 1991-1992 ? (Circle one:)

   Mattie Lively Sallie Zetterower Other: _____

7. What was your teaching area during the **last** school year 1991-1992 ? (Circle one:)

Regular classroom	Art	Music	Physical Ed.
Resource SPED	Self Contained SPED		Chapter One
Gifted	Other Write in: _____		

Lesson Planning

8. In general, how difficult was it to prepare lesson plans that would suit your students' range of abilities during the 1992-1993 school year? (Circle one:)

Very easy Moderately easy Moderately difficult Very difficult

Lesson Presentation Skills and Strategies

9. Thinking back over this school year 1992-1993, how difficult was it to teach to the range of academic abilities in your class on a typical day? (Circle one:)

Very easy Moderately easy Moderately difficult Very difficult

10. List effective strategies that you used this year (1992-93):

_____

Classroom Management

11. Overall, how would you rate your classroom management skills and programs during the 1992-1993 school year? (Circle one:)

Very successful	Moderately successful	Moderately unsuccessful	Very unsuccessful

Evaluation of Student Performance

12. During the 1992-1993 school year, how difficult was it for you to assess student performance in the classroom? (Circle one:)

Very successful	Moderately successful	Moderately unsuccessful	Very unsuccessful

13. During the 1992-1993 school year, how difficult was it to assign report card grades? (Circle one:)

Very easy Moderately easy Moderately difficult Very difficult

Student Characteristics

14. During the 1992-1993 school year, about how many students were in your classroom? (If you taught a special subject, such as art, music, or P.E., how many students did you serve?)

Write in: _____ students

15. In your opinion, about how many of your 1992-1993 students were highly motivated to learn?

Write in: _____ students

16. In your opinion, about how many of your 1992-1993 students had very low motivation to learn?

Write in: _____ students

17. Overall, how would you rate your class of 1992-1993's motivation to learn? (Circle)

Excellent Very good Average Below average Very bad

Student Discipline

18. Overall, how would you rate your class of 1992-1993's behavior and discipline?

Excellent Very good Average Below average Very bad

Student Self Concept

Students with high self-esteem tend to feel good about themselves, their abilities, and their school experience while students with low self-esteem tend to lack confidence.

19. Overall, how would you rate your class of 1992-1993's confidence and self-esteem? (Circle one:)

Excellent Very good Average Below average Very bad

Part C:

Background Information

The questions in Part C deal specifically with the **1990-1991** school year before heterogeneous cluster grouping was in force. During the 1990-91 school year, homogenous grouping was used. Please answer each of the following questions only in regards to the 1990-1991 school year.

20. Did you teach public school in 1990-1991? (Circle one:)

    Yes No **(IF YOU ANSWERED NO, PLEASE SKIP TO QUESTION 36)**

21. What grade did you teach during the 1990-1991 school year? (Circle one:)

    First Second None Other: (explain)_____

22. In which school did you teach during the 1990-1991 school year? (Circle one:)

    Mattie Lively Sallie Zetterower Other: _____

23. What was your teaching area during the 1990-1991 school year? (Circle one:)

    Regular classroom Art Music Physical Ed.

    Resource SPED Self Contained SPED Chapter One

    Gifted Other Write in: _____

Lesson Planning

24. In general, how difficult was it to prepare lesson plans that would suit your students' range of abilities during the 1990-1991 school year? (Circle one:)

    Very easy Moderately easy Moderately difficult Very difficult

Lesson Presentation Skills and Strategies

25. Thinking back over the 1990-1991 school year, how difficult was it to teach to the range of academic abilities in your class on a typical day? (Circle one:)

Very easy Moderately easy Moderately difficult Very difficult

26. List effective teaching strategies that you used during the school year 1990-91:

_____

_____

Classroom Management

27. Overall, how would you rate your classroom management skills and programs during the 1990-1991 school year? (Circle one:)

Very successful Moderately successful Moderately unsuccessful Very unsuccessful

Evaluation of Student Performance

28. During the 1992-1993 school year, how difficult was it for you to assess student performance in the classroom? (Circle one:)

Very easy Moderately easy Moderately difficult Very difficult

29. During the 1990-1991 school year, how difficult was it for you to assign report card grades? (Circle one:)

Very easy Moderately easy Moderately difficult Very difficult

Student Characteristics

30. During the 1990-1991 school year, about how many students were in your classroom? (If you taught a special subject, such as art, music, or P.E., how many students did you serve?)

Write in: _____ students

Student Motivation

31. In your opinion, about how many of your 1990-1991 students were highly motivated to learn?

    Write in: _____ students

32. In your opinion, about how many of your 1990-1991 students had very low motivation to learn?

    Write in: _____ students

33. Overall, how would you rate your class of 1990-1991's motivation to learn?

    Excellent Very good Average Below average Very bad

Student Discipline

34. Overall, how would you rate your class of 1990-1991's behavior and discipline?

    Excellent Very good Average Below average Very bad

Student Self Concept

Students with high self-esteem tend to feel good about themselves, their abilities, and their school experience while students with low self-esteem end to lack confidence.

35. Overall, how would you rate your class of 1990-1991's confidence and self-esteem? (Circle one:)

    Excellent Very good Average Below average Very bad

Part D:

Ability Grouping Issues

This section addresses your opinion concerning homogeneous ability grouping and heterogeneous ability grouping in grades 1 - 5.

* Homogeneous ability/achievement grouping refers to separating students based on their ability/achievement. With homogeneous grouping, some classrooms have mostly above average students while other classrooms have mostly average or below average students.

* Heterogeneous/cluster ability/achievement grouping refers to mixing above average, average, and below average students in each classroom.

  Under both systems, students with severe behavioral, physical, or academic problems are placed in their own classrooms.

36. In your opinion, which type of ability/achievement grouping is best for average students?

_____ Homogeneous ability/achievement grouping is best for average students.
_____ Heterogeneous/cluster ability/achievement grouping is best for average students.
_____ Homogeneous and Heterogeneous/cluster ability/achievement groupings are equally good for average students.

37. In your opinion, which type of ability/achievement grouping is best for above average students?

_____ Homogeneous ability/achievement grouping is best for above average students.
_____ Heterogeneous/cluster ability/achievement grouping is best for above average students.
_____ Homogeneous and Heterogeneous/cluster ability/achievement groupings are equally good for above average students.

38. In your opinion, which type of ability/achievement grouping is best for below average students?

_____ Homogeneous ability/achievement grouping is best for below average students.
_____ Heterogeneous/cluster ability/achievement grouping is best for below average students.
_____ Homogeneous and Heterogeneous/cluster ability/achievement groupings are equally good for below average students.

39. Following is a statement concerning homogeneous ability/achievement grouping. Please circle your response to this statement.

"I am totally in favor of homogeneous ability/achievement groupings in grades 1-5 in Bulloch county schools."

Strongly agree	Agree	Neutral	Disagree	Strongly disagree	No opinion

40. Following is a statement concerning Heterogeneous/cluster ability/achievement grouping. Please circle your response to this statement.

"I am totally in favor of Heterogeneous/cluster ability/achievement groupings in grades 1-5 in Bulloch county schools."

Strongly agree	Agree	Neutral	Disagree	Strongly disagree	No opinion

41. In your opinion, do you need any additional resources to make your Heterogeneous/cluster classroom very effective?

_____ yes (continue to question 42)
_____ no (skip to question 43)

42. If you answered "yes," to question 41, what resources do you need? Write in:

_____

_____

_____

_____

43. Briefly describe a single incident in which Heterogeneous/cluster grouping was an asset (contributed significantly to a positive outcome) to either a student or the class as a whole.

_____

_____

_____

44. What resources and/or training allowed you to maximize the situation you described in answer to question 43.?

_____

_____

_____

45. Briefly describe a single situation in which Heterogeneous/cluster grouping made a problem more difficult.

_____

_____

_____

46. What resources and/or training would have made the situation described in answer to question 45 easier to handle?

_____

_____

_____

Thank you for taking time to fill out this questionnaire. Please enclose it in the envelope provided, seal the envelope and place it in the collection box.

Appendix B Upper Elementary School Teacher Questionnaire

Part A:

Years of Experience

1. Including this school year, how many years have you taught full-time? ____ years

Part B:

The questions in Part B deal specifically with this school year 1992-93 when heterogeneous cluster grouping was in force. Please answer each of the following questions only in regards to the 1992-1993 school year.

Note: Heterogeneous cluster grouping was in force in the 1992-93 school year. All of the questions in Part B are in regard to the 1992-93 school year. Homogeneous grouping was in force in school year 1991-92 and the years before. The questions in Part C (questions number 17 to number 32), will deal with the 1991-92 school year.

Background Information

2. What grade did you teach during **this** school year 1992-1993? (Circle one:)

   Third Fourth Fifth Other: (explain)_____

3. In which school did you teach during **this** school year 1992-1993 ? (Circle one:)

   J. P. Bryant Other: _____

4. What was your teaching area during **this** school year 1992-1993 ? (Circle one:)

   Regular classroom Art Music Physical Ed.

   Resource SPED Self Contained SPED Chapter One

   Gifted Other Write in: _____

Lesson Planning

5. In general, how difficult was it to prepare lesson plans that would suit your students' range of abilities during the 1992-1993 school year? (Circle one:)

   Very easy Moderately easy Moderately difficult Very difficult

Lesson Presentation Skills and Strategies

6. Thinking back over this school year 1992-1993, how difficult was it to teach to the range of academic abilities in your class on a typical day? (Circle one:)

Very easy Moderately easy Moderately difficult Very difficult

7. List effective strategies that you used this year (1992-93):

_____

Classroom Management

8. Overall, how would you rate your classroom management skills and programs during the 1992-1993 school year? (Circle one:)

Very successful Moderately successful Moderately unsuccessful Very unsuccessful

Evaluation of Student Performance

9. During the 1992-1993 school year, how difficult was it for you to assess student performance in the classroom? (Circle one:)

Very successful Moderately successful Moderately unsuccessful Very unsuccessful

10. During the 1992-1993 school year, how difficult was it to assign report card grades? (Circle one:)

Very easy Moderately easy Moderately difficult Very difficult

Student Characteristics

11. During the 1992-1993 school year, about how many students were in your classroom? (If you taught a special subject, such as art, music, or P.E., how many students did you serve?)

Write in: _____ students

12. In your opinion, about how many of your 1992-1993 students were highly motivated to learn?

Write in: _____ students

13. In your opinion, about how many of your 1992-1993 students had very low motivation to learn?

    Write in: _____ students

14. Overall, how would you rate your class of 1992-1993's motivation to learn? (Circle)

    Excellent Very good Average Below average Very bad

Student Discipline

15. Overall, how would you rate your class of 1992-1993's behavior and discipline?

    Excellent Very good Average Below average Very bad

Student Self Concept

Students with high self-esteem tend to feel good about themselves, their abilities, and their school experience while students with low self-esteem tend to lack confidence.

16. Overall, how would you rate your class of 1992-1993's confidence and self-esteem? (Circle one:)

    Excellent Very good Average Below average Very bad

Part C:

Background Information

The questions in Part C deal specifically with the **1991-1992** school year before heterogeneous cluster grouping was in force. During the 1991-92 school year, homogenous grouping was used. Please answer each of the following questions only in regards to the 1991-1992 school year.

17. Did you teach public school in 1991-1992? (Circle one:)

    Yes No **(IF YOU ANSWERED NO, PLEASE SKIP TO QUESTION 33)**

18. What grade did you teach during the 1991-1992 school year? (Circle one:)

    Third Fourth Fifth None Other: (explain)_____

19. In which school did you teach during the 1991-1992 school year? (Circle one:)

    J. P. Bryant Other: _____

20. What was your teaching area during the 1991-1992 school year? (Circle one:)

    Regular classroom Art Music Physical Ed.

    Resource SPED Self Contained SPED Chapter One

    Gifted Other Write in: _____

Lesson Planning

21. In general, how difficult was it to prepare lesson plans that would suit your students' range of abilities during the 1991-1992 school year? (Circle one:)

    Very easy Moderately easy Moderately difficult Very difficult

Lesson Presentation Skills and Strategies

22. Thinking back over the 1991-1992 school year, how difficult was it to teach to the range of academic abilities in your class on a typical day? (Circle one:)

Very easy Moderately easy Moderately difficult Very difficult

23. List effective teaching strategies that you used during the school year 1991-92:

_____

_____

Classroom Management

24. Overall, how would you rate your classroom management skills and programs during the 1991-1992 school year? (Circle one:)

Very successful Moderately successful Moderately unsuccessful Very unsuccessful

Evaluation of Student Performance

25. During the 1991-1992 school year, how difficult was it for you to assess student performance in the classroom? (Circle one:)

Very easy Moderately easy Moderately difficult Very difficult

26. During the 1991-1992 school year, how difficult was it for you to assign report card grades? (Circle one:)

Very easy Moderately easy Moderately difficult Very difficult

Student Characteristics

27. During the 1991-1992 school year, about how many students were in your classroom? (If you taught a special subject, such as art, music, or P.E., how many students did you serve?)

Write in: _____ students

Student Motivation

28. In your opinion, about how many of your 1991-1992 students were highly motivated to learn?

    Write in: _____ students

29. In your opinion, about how many of your 1991-1992 students had very low motivation to learn?

    Write in: _____ students

30. Overall, how would you rate your class of 1991-1992's motivation to learn?

    Excellent Very good Average Below average Very bad

Student Discipline

31. Overall, how would you rate your class of 1991-1992's behavior and discipline?

    Excellent Very good Average Below average Very bad

Student Self Concept

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32. Overall, how would you rate your class of 1991-1992's confidence and self-esteem? (Circle one:)

    Excellent Very good Average Below average Very bad

Part D:

Ability Grouping Issues

This section addresses your opinion concerning homogeneous ability grouping and heterogeneous ability grouping in grades 1 - 5.

* Homogeneous ability/achievement grouping refers to separating students based on their ability/achievement. With homogeneous grouping, some classrooms have mostly above average students while other classrooms have mostly average or below average students.

* Heterogeneous/cluster ability/achievement grouping refers to mixing above average, average, and below average students in each classroom.

  Under both systems, students with severe behavioral, physical, or academic problems are placed in their own classrooms.

33. In your opinion, which type of ability/achievement grouping is best for average students?

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_____ Heterogeneous/cluster ability/achievement grouping is best for average students.
_____ Homogeneous and Heterogeneous/cluster ability/achievement groupings are equally good for average students.

34. In your opinion, which type of ability/achievement grouping is best for above average students?

_____ Homogeneous ability/achievement grouping is best for above average students.
_____ Heterogeneous/cluster ability/achievement grouping is best for above average students.
_____ Homogeneous and Heterogeneous/cluster ability/achievement groupings are equally good for above average students.

35. In your opinion, which type of ability/achievement grouping is best for below average students?

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36. Following is a statement concerning homogeneous ability/achievement grouping. Please circle your response to this statement.

"I am totally in favor of homogeneous ability/achievement groupings in grades 1-5 in Bulloch county schools."

Strongly agree	Agree	Neutral	Disagree	Strongly disagree	No opinion

37. Following is a statement concerning Heterogeneous/cluster ability/achievement grouping. Please circle your response to this statement.

"I am totally in favor of Heterogeneous/cluster ability/achievement groupings in grades 1-5 in Bulloch county schools."

Strongly agree	Agree	Neutral	Disagree	Strongly disagree	No opinion

38. In your opinion, do you need any additional resources to make your Heterogeneous/cluster classroom very effective?

_____ yes (continue to question 39)
_____ no (skip to question 40)

39. If you answered "yes," to question 38, what resources do you need? Write in:

_____

_____

_____

_____

40. Briefly describe a single incident in which Heterogeneous/cluster grouping was an asset (contributed significantly to a positive outcome) to either a student or the class as a whole.

_____

_____

_____

41. What resources and/or training allowed you to maximize the situation you described in answer to question 40.?

_____

_____

_____

42. Briefly describe a single situation in which Heterogeneous/cluster grouping made a problem more difficult.

_____

_____

_____

43. What resources and/or training would have made the situation described in answer to question 42 easier to handle?

_____

_____

_____

Thank you for taking time to fill out this questionnaire. Please enclose it in the envelope provided, seal the envelope and place it in the collection box.

Appendix C

Cover Letter for Primary School Teacher Questionnaire

March 30, 1993

Dear Teacher:

The Board of Education is conducting a study to measure differences between the school year 1990-1991 and the school years 1991-92 and 1992-93 with regard to teacher effects, student effects, grouping, resources, and training. Teacher effects include lesson preparation and presentation, classroom management, evaluation of students and professional morale. Student effects include motivation of students, student discipline, student self concept, and student achievement.

This study is being conducted for the Bulloch County Board of Education by the Center for Rural Health and Research. The Center for Rural Health and Research is a part of the College of Health and Professional Studies at Georgia Southern University.

We are interested in your professional assessment and personal experience in regard to these items. Your answers are confidential. You will not be personally identified. This is a volunteer Interview. You do not have to participate or answer any of these questions.

Please do not identify any student by name in your response. Instead, use phrases like "a male student in my 2nd grade class" when you need to refer to students in your answers.

If you have any questions about this study, you may contact Ms. Norma McNair at the Board of Education @ 764-6201 or Mr. David Strickland at GSU @ 681-0260.

Thank you very much for participating in this study.

Sincerely,

David Strickland,
Research Specialist

NOTE: The letter was printed on official letterhead.

Appendix D

Cover Letter for the Upper Elementary Teacher Questionnaire

March 30, 1993

Dear Teacher:

The Board of Education is conducting a study to measure differences between the school year 1991-1992 and the school year 1992-93 with regard to teacher effects, student effects, grouping, resources, and training. Teacher effects include lesson preparation and presentation, classroom management, evaluation of students and professional morale. Student effects include motivation of students, student discipline, student self concept, and student achievement.

This study is being conducted for the Bulloch County Board of Education by the Center for Rural Health and Research. The Center for Rural Health and Research is a part of the College of Health and Professional Studies at Georgia Southern University.

We are interested in your professional assessment and personal experience in regard to these items. Your answers are confidential. You will not be personally identified. This is a volunteer Interview. You do not have to participate or answer any of these questions.

Please do not identify any student by name in your response. Instead, use phrases like "a male student in my 2nd grade class" when you need to refer to students in your answers.

If you have any questions about this study, you may contact Ms. Norma McNair at the Board of Education @ 764-6201 or Mr. David Strickland at GSU @ 681-0260.

Thank you very much for participating in this study.

Sincerely,

David Strickland,
Research Specialist

NOTE: This letter was printed on official letterhead.

Appendix E

Teacher Interview Schedule

① DEMOGRAPHIC INFORMATION

How long have you been a teacher at this school? _____years Interviewer: _____
How long have you been a professional educator? _____years Date: _____
What grade do you teach? _____ School: _____
What is your teaching area? _____

② STUDENT SELF ESTEEM

Think about this school year, 1992-93. On a scale of one to ten with one meaning very poor and ten meaning excellent, how would you rate the self esteem of students in your class? Gr: ___1 2 3 4 5 6 7 8 9 10 Why did you give this rating?	Think about the school year, 1990-91. On a scale of one to ten with one meaning very poor and ten meaning excellent, how would you rate the self esteem of students in your class? Gr: ___1 2 3 4 5 6 7 8 9 10 Why did you give this rating?

③ LESSON PREPARATION

Think about this school year, 1992-93. On a scale of one to ten with one meaning very easy and ten meaning very difficult, how would you rate the difficulty of lesson preparation for your class? Gr: ___1 2 3 4 5 6 7 8 9 10 Why did you give this rating?	Think about the school year, 1990-91. On a scale of one to ten with one meaning very easy and ten meaning very difficult, how would you rate the difficulty of lesson preparation for your class? Gr: ___1 2 3 4 5 6 7 8 9 10 Why did you give this rating?

④ LESSON PRESENTATION

Think about this school year, 1992-93. On a scale of one to ten with one meaning very easy and ten meaning very difficult, how would you rate the difficulty of teaching the range of students in your class? Gr: ___1 2 3 4 5 6 7 8 9 10 Why did you give this rating?	Think about this school year, 1990-91. On a scale of one to ten with one meaning very easy and ten meaning very difficult, how would you rate the difficulty of teaching the range of students in your class? Gr: ___1 2 3 4 5 6 7 8 9 10 Why did you give this rating?

⑤ DISCIPLINE

Think about this school year, 1992-93. On a scale of one to ten with one meaning very difficult and ten meaning very easy, how would you rate the difficulty of maintaining discipline in your class? Gr:___1 2 3 4 5 6 7 8 9 10 Why did you give this rating?	Think about the school year, 1990-91. On a scale of one to ten with one meaning very difficult and ten meaning very easy, how would you rate the difficulty of maintaining discipline in your class? Gr:___ 1 2 3 4 5 6 7 8 9 10 Why did you give this rating?

⑥ CLASSROOM MANAGEMENT

Think about this school year, 1992-93. On a scale of one to ten with one meaning very easy and ten meaning very difficult, how would you rate the difficulty of classroom management for your class? Gr: ___1 2 3 4 5 6 7 8 9 10 Why did you give this rating?	Think about the school year, 1990-91. On a scale of one to ten with one meaning very easy and ten meaning very difficult, how would you rate the difficulty of classroom management for your class? Gr: ___1 2 3 4 5 6 7 8 9 10 Why did you give this rating?

⑦ TEACHER MORALE

Think about this school year, 1992-93. On a scale of one to ten with one meaning very poor and ten meaning excellent, how would you rate the morale of teachers in at this school? Gr:___1 2 3 4 5 6 7 8 9 10 Why did you give this rating?	Think about the school year, 1990-91. On a scale of one to ten with one meaning very poor and ten meaning excellent, how would you rate the morale of teachers at this school? Gr: ___1 2 3 4 5 6 7 8 9 10 Why did you give this rating?

⑧ CRITICAL INCIDENTS

Without revealing any students identity, please describe one situation in which you feel heterogeneous grouping has contributed positively to a student's development. List any training or resources which helped make this a positive situation.

Without revealing any students identity, please describe one situation in which you feel heterogeneous grouping has contributed negatively to a student's development. List any training or resources which could help make this a positive situation.

Please identify any resources or training which would improve the quality of education for all children in a heterogeneously grouped classroom.

Appendix F

Teacher Interview Ballot

Teacher Interview Ballot

Six teachers will be selected from all who volunteer at each school to participate in a 30 minute interview with GSU research specialist David Strickland. The interview will address differences between this school year when Heterogeneous grouping was in force and school years before heterogeneous grouping was used.

We are interested in your professional assessment and experiences. The interview will be confidential. You will not have to answer any questions you do not wish to answer. Your name will not be associated with your answers at any time.

The interview will be taped. The tape will be transcribed by CRH&R staff at GSU. Once the tape is transcribed it will be destroyed. The only people who will ever hear the tape are CRH&R staff (David Strickland, Rebecca Ryan, Kriste Jones, and/or Joanne Dannacher).

If you wish to be eligible to participate one of these interviews, please fill in the information below, fold this form and place it in the collection box. Six names will be drawn.

NAME: _____ PHONE NUMBER : _____

SCHOOL : _____ ALTERNATE NUMBER: _____

Appendix G

Internal Review Board Approval Letter

ACADEMIC EXCELLENCE
GEORGIA SOUTHERN

COLLEGE OF HEALTH & PROFESSIONAL STUDIES
GEORGIA SOUTHERN UNIVERSITY
LANDRUM BOX 8076
STATESBORO, GEORGIA 30460-8076
TELEPHONE (912) 681-0200

DEPARTMENT OF SPORT SCIENCE
AND PHYSICAL EDUCATION

INSTITUTIONAL REVIEW BOARD

GEORGIA SOUTHERN UNIVERSITY

April 12, 1993

David Strickland, Research Specialist
Center for Rural Health and Research
L.B. 8148
Georgia Southern University

Dear Mr. Strickland:

I have reviewed your proposed study entitled, "Program Evaluation for Heterogeneous Ability Grouping in Bulloch County Schools." Following this review, it appears that only minimal risk exists for the research participants. I am, therefore, on behalf of the Institutional Review Board, able to certify that adequate provisions have been planned to protect the rights of the human subjects. Should circumstances change or unforeseen events occur, please notify the IRB immediately. Please notify the IRB upon completion of the research.

I would ask that you change the informed consent forms and cover letters to include your name, in addition to the Board of Education person, as a contact person. Please send me copies of any revised documents for inclusion in your file.

I wish you every success with this and future research efforts.

Yours in health,

Jim McMillan

Jim McMillan, Ed.D., Chair
Institutional Review Board
Department of Sport Science and PE
Georgia Southern University

xc: Dr. Howard Kaplan