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AN ANALYSIS OF REPORTED BEHAVIOR IN GRADES 3, 5, AND 7 OF
STUDENTS WHO WERE IN THREE CLASS SIZES (SMALL, REGULAR,
REGULAR WITH AIDE) IN GRADES K-3.

by

Ballard Frank Hibbs

A Dissertation Submitted to the
Faculty of the Graduate School at
The University of North Carolina at
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in partial fulfillment of
the requirements for the Degree
Doctor of Education

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Approved by



Dissertation Advisor

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HIBBS, BALLARD FRANK, Ed.D. An Analysis of Reported Behavior in Grades 3, 5 and 7 of Students Who were in Three Class Sizes (Small, Regular, Regular with Teacher's Aide) in Grades K-3. (1996) Directed by Dr. Dale Brubaker. 93 pp.

The purpose of this research was to determine the nature of, and possible strategies to eliminate classroom discipline problems in middle and secondary schools. Characteristics which were common to all classrooms with discipline problems were examined both from educational literature and select school discipline reports. Patterns of inappropriate behavior, truancy and acts of classroom vandalism were determined. The study also identified numerous classroom situations that either fostered discipline problems, or exacerbated the existing ones. The pervasive benefits of smaller classes was found not only in primary students, but also in middle school (6th and 7th grades) students as well. The positive influence of smaller classrooms on primary and middle school teachers and administrators was noted.

It was found that approximately 68% of all the primary schools in the greater Nashville school system had class sizes that ranged from 27 to 34 students and one teacher. It was noted that poor school attendance, incidence of truancy, and acts of vandalism and violence were prevalent. It was found from the literature that this condition is a

national, not a regional, phenomenon. And, although many innovative programs have been established to curb these problems, few school systems have been as successful as the Metro-Nashville and Knox County School systems. Possible reasons for the successes were explored. Problems that are common to middle and secondary schools, but not to primary schools, have been identified.

Based on analysis, the following conclusions, among others, were drawn:

1. Students who attended smaller classes from Kindergarten through third grade had fewer incidents of inappropriate behavior, and truancy in the third, fifth and seventh grades, than those from regular sized classes.
2. According to the survey results the majority of the teachers in the study applied one of two teaching techniques, and (at least) two of five disciplinary techniques in their seventh grade classes.
3. The majority of the teachers in the study applied one of two teaching techniques, and (at least) two of five disciplinary techniques in their fifth grade classes.

4. students in the reduced STR classrooms had higher scores on standardized achievement tests.
5. The Guidance Approach to discipline is the most effective means to deal with primary and middle school students.

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APPROVAL PAGE

This dissertation has been approved by the following committee of the Faculty of The Graduate School at The University of North Carolina at Greensboro.

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DEDICATION

Let not thy moral torch be quenched,
nor compromise the right.

For he who spurns a wise man's words,
will deftly scoff the light.

-- B. Frank Hibbs

This work is dedicated to my Mother, Voncile, who taught me how to live my life in a moral and just way, realizing that we owe every living thing the respect of that life. To my Father, Frank, from whom I learned that duty to my God, family and country comes before all else. And last, I dedicate this work to my wife, Jane, who taught me that love, patience and faith in my Lord Jesus Christ are all that is needed.

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CHAPTER I

INTRODUCTION

Debates on the relationship between smaller teacher-student ratio, (hereafter referred to as: STR or class size) and student achievement are commonplace among educators and administrators. The belief that smaller is better is, in part, predicated on the logic that a smaller class size will enable the teacher more personal time with his students. With this, and many other questions in mind, policymakers and educators in Tennessee embarked on a bold four-year longitudinal study on the effects of class size on pupil achievement in grades K-3. This four-year study, (8/85-8/89) was a cooperative project involving forty-two local school systems, a consortium of four universities and the Tennessee State Department of Education. This study was referred to as Tennessee's Student-Teacher Achievement Ratio (STAR) Project.

This study provided indisputable data that support the premise that classes (K-3) with lower STR (approximately 15/1) learned more and scored higher on standardized tests than did the classes that exceeded the 15/1 STR, (Finn and Achilles, 1990). The STAR Project confirmed the causal relationship between small class sizes and pupil achievement. It is, therefore, conceivable that pervasive benefits

can also be realized in the area of self-esteem and self-discipline, predicated on the premise that students who get more help will achieve more, will have higher self-esteem and thus more self-discipline, (Finn, 1990, p. 10).

Background

As our nation moves into the mega-computer age, so must our culture. Inherent with such changes comes the reluctance to that change. Although we have traditionally strived for the most "bang for the buck" in our educational system, we have neglected many important factors in the process: instilling the need for self-discipline, respect for self and others and a sense of responsibility for one's actions. The lack of (taught) living skills manifests itself in poor attendance, failure to adhere to what is considered to be proper classroom behavior, general recalcitrance, truancy and overt acts of violence in classrooms and school campuses all over America.

Although this phenomenon is not a new one, it has become an issue that no longer can be just ignored. School facilities must undergo millions of dollars of repairs each year as a result of vandalism: students are beaten, raped and robbed, teachers and administrators are threatened, assaulted and murdered.

Mass media accounts of violent crimes in our schools are especially repugnant because parents expect our public

schools to be places for their children to go to learn, not to be exposed to violence, drugs, or intimidation. The once safe, moral haven for the educational preparation of our young people has become a place of intimidation, chaos and potential destruction (Bilchik, 1994).

The focus of this study was upon select data on student behavior in the Metro-Nashville and Knox County, Tennessee school districts. The purpose of the research will be to identify excellent examples of classroom management, disciplinary techniques and how smaller student-teacher ratios can have a profound effect on the self-discipline, self-esteem and motivation of primary school children. The study concentrated on the comparison of three experimental conditions. For the purpose of this study experimental conditions refers to student-teacher ratios and the presence of a teacher's aide. The researcher also studied strategies that were used in the three conditions and the success/failure rates in each of the three conditions. Moreover, attention was given to the strategies that were employed in the classrooms, their immediate and pervasive benefits, and finally, the causes which have led to the developments in the public school systems to deal with inappropriate behavior, and recalcitrance.

Statement of the Problem

The growing discipline problem in our public schools has reached epidemic proportions, (Bilchik, 1994, p. 1). Violence is not only commonplace, it has become for some students a way of life. Problem: can we find a solution to the growing trend of public school violence? Might one solution be as straightforward as reducing the size of our current student-teacher ratio in the early (K-3) years of a pupil's schooling?

Purpose

The purpose of this research will be to determine the effects of class size treatment in early primary grades (K-3) on the disciplinary behavior of these same students in later elementary grades (5 and 7). Characteristics which are common in children who were assigned to reduced STR rooms from kindergarten through third grade will be examined. Patterns of behavior were determined. The study will also find out how a reduced STR in the first three years of formal education may have pervasive, positive benefits in the following two years. The study also outlined select strategies that can be employed to alleviate classroom disciplinary problems. Causes which may have influenced a child's behavior problems were also examined.

Specific Questions

Several issues which were investigated in the present research. In order to address these relevant issues, the following questions were addressed:

1. Is there a difference in the behavior (discipline) in grades 3, 5, and 7 of students who were in Small (1:15), Regular (1:25) and Regular with Aide (RA) Classes in K-3?
2. Statistically, is the incidence of discipline problems higher in classrooms that have an STR of more than 1 to 16?
3. Is there an additional correlation between STR's and student participation/accomplishment?
4. What behavioral patterns emerge among the three study groups in this study?

Methodology

Quantitative research provided the basis for this study. For this, I chose the One-way Analysis of The Variance Statistic. The basis for this selection was the statistic's simplicity and easy adaptability to the data gathered by the study. Qualitative research, in the form of the Portraiture Methodology was utilized to describe select classrooms, discipline procedures and intervention techniques via vignettes and graphic representations.

Rationale

Tennessee's STAR Project confirmed that there was more than just a correlation between small class size and pupil achievement. It is therefore conceivable that pervasive

benefits can also be realized in the area of student behavior and self-discipline. This idea is predicated on the premise that students who attend regular instruction in a reduced-size class will receive more individual instruction. They will achieve more scholastically, and conceivably will have improved behavior and self-discipline because of that achievement.

Choosing the Population

The decision was made to specify that the project would be best served if we studied results from "inner city", or urban and schools" in the assessment of the effects of class size on classroom discipline. Census designators were used to delineate between the schools using the following criteria.

Schools that were located in the two major metropolitan areas, and participated in Tennessee's experimental project STAR were defined as urban schools and used in this study.

The sample for study were drawn from 1 inner-city and 3 urban schools in the Metro-Nashville system, and 2 inner-city and 2 urban schools in Knox County school system. These schools were from the total of 79 urban, inner-city suburban and rural schools in the total STAR database. In it's first year, STAR had 128 small classes (approximately 1,900 students), 101 regular classes (approximately 2,300 students), and 99 regular classes with teacher's aides

(approximately 2,200 students), for a total of over 6,400 students and approximately 329 teachers and 101 teacher's aides. (Word, 1990).

The same sample groups were used in this study as were used in the STAR Project. The project had 128 small classes (approximately 1,900 students), 101 regular classes (approximately 2,300 students), and 99 regular classes with teacher's aide (approximately 2,200 students).

Data Collection Procedure

The design of the study was such that it allowed researchers the ability to track individual students through the four years of the study. This was achieved by assigning students individual identification numbers, which they kept throughout the study. Data on teachers, teacher's aides, administrators and school systems were also collected and entered into the STAR Project database. Each subject of the study was placed in a category based on type of school, sex, race, age, and free or reduced lunch (an indicator of socioeconomic status).

In the STAR study, all students were randomly assigned to one of three conditions, regular (1:23), regular with teacher's assistant (from now on: regular +) and small classes (1:15). The STAR Project provided the majority of the data for the present study. Additional data were gathered via teacher questionnaires and Student Information

Management System (SIMS) reports provided by the two Metropolitan school systems used in this study.

The analysis of the data consisted of a comparison of three different class type situations, small, regular and regular with teacher's aide, for K-3 schooling, in five different schools in the Knox County, Tennessee area. Commonalities among the schools emerged concerning discipline, violence, drop-outs and truancy. The patterns were determined by this writer as a result of reviewing the available data from discipline reports for grades 3, 5, and 7, as well as by the statements made by many of the teachers who actively participated in Project STAR.

Propositions and Limitations

The following propositions and limitations further explain the research.

Propositions:

1. Students who started in small classes will have fewer incidents of discipline problems in grades 3, 5, and 7 than those pupils who started in regular and regular with teacher's aide classrooms.
2. Pervasive benefits of reduced STR classes are observable.
3. Schools which have reduced STR classrooms have lower rates of student drop-outs, school violence and inappropriate classroom behavior.

Limitations:

1. The study design was effected by student transfers within the system, and transiency.
2. This study does not attempt to analyze the discipline intervention techniques of teachers; it reports discipline referrals of students.
3. The study does not attempt to critique the schools or administrative processes.
4. The population of the study was limited (N=590), due to availability of current SIMS data for the Metro-Nashville and Knox County schools seventh grade.

Significance of the Study

The significance of the study is determined by several factors. First, classroom configurations have a positive effect on the overall achievement level of students in a reduced STR situation. Second, the pervasive benefits of a reduced STR classroom are apparent, they were shown to be caused by STR. Third, if the difference in behavior of students who started school in smaller class sizes and those who started in larger classes can be established, bold changes in the structuring of school classrooms may be helpful in improving school behavior.

Definition of Terms

1. **S.T.A.R. or STAR**:--Refers (specifically) to Project STAR, or Tennessee's Student-Teacher Achievement Ratio Project, (1985-89).
2. **STR**:--Refers to Student-Teacher Ratio in the design classrooms, e.g., STR of 12/1 refers to a classroom design that has 12 students with one teacher.

3. Within School Design:--A school with sufficient enrollment in each grade to provide a minimum of one small (15-17 enrollment), one regular (22-25 enrollment), and one regular with full-time aide.

Summary

Research indicates that there is a casual relationship between smaller class-size and student achievement. This has been documented by large-scale experimental processes, (e.g., Project STAR). This idea seems logical, and individual teachers agree, indeed, I have seen it in my own classrooms, and my colleagues concur that their "reduced" classrooms experienced higher achievement and reduced incidents and severity of disciplinary problems. Why doesn't the problem of too crowded classrooms in K-3 just go away? Simply enough, student/teacher ratios often exceed the recommended numbers because: 1) state and district systems are reluctant to spend the funds necessary to build additional facilities to accommodate more classrooms, 2) with added classrooms comes the need for additional teachers, another added expense, and 3) not all parents and administrators are convinced that reduced class size in K-3 is the panacea for the achievement problem, to say nothing of later behavior. Finally, it is possible that there is administrative reluctance to commit resources to any program that calls for sweeping changes that may have political implications.

Given to the premise that education can be a powerful tool, it is easy to see why administrators and politicians

choose to place our growing failure to keep pace with the Universal "Joneses" in the hands of updated teaching techniques and technology. In some cases this may be true, but the overwhelming truth is that higher student achievement is synonymous with reduced class sizes (Project STAR, 1992). Conversely, if class sizes in K-3 are allowed to exceed small teacher/student ratios of about 1/15, we can expect to see proportionately lower student achievement, which inherently leads to added frustration, lethargy, low self-esteem and (often) to discipline problems. (Word, E, 1990)

The relationship between STR's and student classroom behavior, discipline strategies and outcomes will be the main topics of this study.

Map for Remainder of Dissertation

Chapter 2 contains the researcher's review of related research material and literature, using data gathered from a major research project (STAR), dealing with the issue of reduced class size, and books and publications that deal directly with the issue of school discipline, and the possible relationship between reduced class size (about 1:15) and fewer incidents of inappropriate behavior than in the larger (about 1:24) classes. This researcher used four vignettes to profile four schools, two each in the Metro-Nashville and Knox-County school systems, using data on student behavior in classrooms from each of two grades: third and fifth. A

second analysis was done to ascertain if there are benefits related to student behavior derived from small class sizes (K-3) by profiling the discipline reports of these same students during their seventh- grade year.

Chapter 3 speaks to the matter of Methodology. In this chapter I will be using data gathered from three sources: Project S.T.A.R., classroom department reports and the annual school Student Information Management System, (S.I.M.S.) reports, and analyzing those data with the analysis of the variance (ANOVA) statistic. Additional data on teaching methodology, individual teacher classroom disciplinary techniques was also gathered using a standardized instrument, (questionnaire). This data was applied toward the review of literature chapter to establish a possible link between teaching techniques, class size (STR), and discipline styles with student department.

In chapter four the researcher will summarize the main points of chapters two and three as they apply to the main hypothesis of the dissertation. Additionally, I will synthesize the salient points of information that are germane to school discipline but not [necessarily] related to the questions of STR's and discipline. Conclusions will be drawn from all of the data in these chapters, and addressed as recommendations for school reform, or further study.

CHAPTER II
REVIEW OF THE LITERATURE

INTRODUCTION

The study of classroom discipline, with reference to maintaining good order and abating problems has become increasingly popular in administration literature. This has been due, in part, to the increasing need to develop new strategies to deal with the aggrandize problems of high drop-out rates, and the overwhelming high rate of crime in our public schools (Bastion & Taylor, 1991, p. 1). The effect of this spiraling crime rate on our public school systems has been devastating; drop-out rates have doubled, and violent crimes on school campuses are in the hundreds of thousands. In the past, such problems were easily dealt with via in loco parentis through dismissals or suspensions (Hudgins & Vacca, 1985, p. 289). In order to react to these problems, a number of specific strategies were addressed in the literature which may hold the key for a more disciplined and productive classroom environment. These strategies may prove valuable to the advancement/return of a more orderly national public school system. It was vitally important for all school administrators, teachers, and parents to seek straightforward, logical methods of reducing any and all

factors that negatively affected the learning process and the emotional growth of their charges.

With that in mind, many of the schools adopt a less-than tolerant approach to inappropriate behavior in and around the school campus, and especially in the classrooms. Although some of these "get tough" policies were viewed as excessive, ineffective and in violation of perceived legal rights, this researcher have found that those schools who embraced the policies of a more disciplined school campus enjoyed far less victimization of its students than those who utilized a "business-as-usual" approach. Perhaps the answer to having a more productive and well disciplined school environment lies in reducing the student/teacher ratio.

Violent Crime

Juvenile violent crime in this country's public school systems has been on a steady upward trend since 1965. The FBI's Uniform Crime Report between 1988 and 1992 indicated that the juvenile arrest rate had increased by 47%. This statistic represents more than twice the increase in violent crimes of persons 18 years old or older. Murder alone increased by an alarming 51%, compared to 9% in the adult population during this same period.

Arrests of juveniles in 1992 were the highest in history; a staggering 129,000 violent crime arrests made, with

approximately 3,300 arrests for murder, 6,300 for forcible rape, 45,700 for robbery, and 74,400 for aggravated assault.

The use of weapons, especially handguns, increased from 64% to 78% between 1987 and 1991. One out of every four weapons arrests was a juvenile, or nearly 54,200 juveniles arrested for weapons violations in 1992 alone (Bilchik, 1994).

Students Who Carry Weapons in School

In 1990, The Center for Disease Control conducted a survey to determine how many students carried weapons to public school campuses. Twenty percent of the surveyed students indicated that they had carried a weapon to school in the past month. Of that number, 32% were male, and 8% were female. Among students who carried weapons, Black males lead the statistics with 27%, followed by Hispanics with 26%, and whites with 17% (Youth Risk Behavior Study, 1990, p.6). This equates to one in five secondary school students reported having carried a weapon in school in a one-month period. Knives and razors were carried more often than firearms, about 55% of the time. The study also revealed that one in 20 (5%) carried a handgun.

Of the total number of Black males who carried a weapon, over half carried a firearm. During this same period, Black youths were arrested for weapons violations at a rate that was triple that of white youth. The possibility of a

connection between juvenile violence and the socioeconomic background of the students in the study was also considered. It is important to establish to what degree, and in what socioeconomic groups we can expect to find the most, and least likely candidates for different levels of violence or recalcitrant behaviorisms. Although it was noted that those students who were part of the study who were considered as exhibiting "inappropriate," or unacceptable behaviorisms, fewer than 10% were involved in violent crimes during the same period. It was also found that less than 40% of that same group received permanent expulsion from school.

Fear of Crime in School

The National Crime Victimization Survey (1991) found that the incidence of violent crimes against youth between the ages of 12 and 17 was more than 1.55 million in 1992, a 25% increase since 1988. This number is equal to about 33% of all the crimes committed against adults during this same period. Comparable data on the number of crimes committed against victims below the age of 12 during this period was not included in this survey.

Although school violence is less common than non violent theft, violent school crimes arouse destructive fears among students, teachers and parents (Toby, p.2). According to the National Crime Victimization Survey Report (Bastian & Taylor, 1991), the majority of students (81%) who had not

been victimized did not feel threatened, or in fear of being attacked at school, going to or returning from school or school-related activities. In contrast, those students who had been victims of violent crimes were afraid of being victimized again. These same students were more likely to report their fears of being victimized in school (53%) than those who did not experience such victimization (19%).

One of the most important statistics in this scenario was that of those who were victims of violent crimes during this period, 74% stated that they never feared an attack while traveling to or from school. Of that same group, 47% stated they had never experienced any fear of being attacked at school (Bastian & Taylor 1991, p. 9). Although these statistics may indicate that a large number of students have no fear of being victimized, there still remains a substantial number who not only fear being victimized on the way to school (26%), but also have a high incidence of being victimized while at school (53%).

The actual number of incidents is most likely much higher than students report. According to the recent report on gang violence in America (Bastian & Taylor, p. 79), very few incidents that are gang related are ever reported. This report cites four reasons that are often used to justify this: 1) fear of reprisals from rival gangs or peers in the same gang, 2) possible exclusion from a peer group (or) gang due to a violation of the universal rule that forbids a gang

member from contacting anyone who is not associated with the gang, 3) a feeling that nothing can/will be done to ensure that it doesn't recur, and 4) feeling embarrassed, or ashamed that they could not handle the situation without help.

The threat of gang violence or the threat of intimidation in the public school system is increasingly real; its impact on the school, and the discipline practices used to curb its influence are extremely important. Although there were no reported gang problems in the school districts that were used in this study, the issues related to gangs and schools are universal enough to suggest that one day all schools may be influenced by them.

Gangs, and Their Influence in the Public Schools

In his article, "How To Help Gangs Win The Self-Esteem Battle," Richard Arthur (May, 1989) states:

Young people join gangs because they meet important needs that go unmet in every other aspect of their daily lives. The gang gives them a sense of security and structure that is also lacking at home. The gang is loyal while others in their lives are not only disloyal, they may even be very antagonistic toward them....these kids feel that they are worthless; they feel helpless; and they believe that everything is hopeless (p. 19).

Once these needs are met, it becomes increasingly harder to remove the individual from the group. Behavioral patterns that are established in these early years can persist and have deleterious long-term effects (Finn, 1989).

Research on the links between school achievement, self-esteem and participation/fraternity in a gang indicate a strong correlation between self-esteem and gang affiliation (Spivac and Cianci, 1987).

The link between poor self-esteem and the needs that are met by a gang "family" can be broken in the early school experience, by providing an environment that recognizes each child's expectations, needs and personality. The alternative to realizing that connection is apparent. Ford and (Nichols, 1987) explained how unattainable goals can lead to low self-esteem, frustration, withdrawal and a perception of self as ineffective and powerless. Consistent with patterns associated with scholastic failure comes the resulting search for activities that may not be socially acceptable but can garner the needed success the youth seeks.

Under conditions of low social control, these young people turn to delinquent behavior to raise self-esteem...it follows that, if these youngsters' experiences at school were altered sufficiently to raise their self-esteem...their disruptive behavior and delinquent behavior would subside (Gold and Mann, 1984, p. 19).

Gangs and Violence in Schools

According to the National Crime Victimization Report (1992), 12% of all victimization of students, and 16% of threats and attacks carried out on teachers were perpetrated by known gang members. The majority of all gang-related violence (19%), is between rival gangs, usually in the central city (25%). These statistics speak to the obvious

effects of gangs on campuses, and the most serious effects these gangs have on our youth are long-term. What might start out to be a youthful offender may eventually become an adult criminal.

These statistics are significant enough to: A) warrant more stringent regulations to eliminate organized gangs in public schools, B) provide more programs that replace the "need" for gangs, on which all gangs rely for their recruits, and C) provide all the resources necessary to ensure that the STR in all public schools will be commensurate with the needs of each teacher, to give every child the amount of personal time he needs to realize his potential.

It is highly probable that if school administrators' negative attitudes toward smaller classroom STR were changed, we would see a dramatic change in student deportment, self-discipline, work ethic, productivity, achievement and school security due to the dying-out of school-based gangs.

Early Beginnings: Traditional Attitudes Toward Children and Classroom Discipline.

Discipline practices in 17th, 18th and 19th century western classrooms were often inconsistent, capricious, and brutal. Based on the Judeo-Christian belief that the education of children was the responsibility of the clergy, appointed school masters were expected to maintain a "degree

of civility, and prudent behavior indicative of the day." Although there was no Biblical reference to the nature of children, there was an accepted thesis that children were born with a tendency toward evil; considering the position of the church, with reference to evil and those who engage in it, it is not surprising that school teachers and administrators would use this premise to justify whatever tactics available to eliminate "sin" from a Christian-based society.

School masters often employed extremely stern measures to maintain a disciplined environment in the classroom. The use of public ridicule, deprivation, shunning and corporal punishment were the most popular. In his book, The Developing Person Through Childhood and Adolescence, (Berger, 1991) states that the acceptance of the "rod" and strap in western schools was commonplace, as was the almost brutal use of these trappings; whence came the term "beat the devil" out of the child, alluding to the belief that such physical pain would cause the devil to flee from the body (Gartrell, p. 5). By today's standards such tactics would be considered as child abuse, tantamount to criminal assault (Ed.Law.).

In his treatise, "A Godly Form of Household Government," (Osborne, 1980) reinforces the attitudes of the times with this statement:

The young child which lieth in the cradle
is both wayward and full of affection; and
though his body be small, yet he hath a
wrongdoing heart and is inclined to evil...
If this spark be suffered to increase, it

will rage over and burn down the whole house. For we are changed and become good, not at birth, but by education (p. 24).

This predisposition that labeled all children (especially boys) as inherently evil was not shared by everyone. In opposition to this point of view was the concept that portrayed the child as a "blank slate," or Tabula Rasa; a vessel waiting to be filled with the knowledge of the world and God. In his treatise, "The Microcosmography," Earle (1628) further explained this concept when he stated:

The child is a small letter, yet the best copy of Adam... His soul is yet a white paper unscribbled with observations...and he knows no evil (p. 24).

The use of corporal punishment, widely practiced in our society, demonstrates the prevalence of the aforementioned view that strict discipline was based on obedience, not necessarily respect (deMause, 1974). These fundamental differences have formed the basis of the debate on the use of corporal punishment throughout the centuries. Now, as then, the debate is centered on the ethics, morality and the validity of using physical punishment to garner positive behavior.

The Preventive Guidance Strategists: Pestalozzi to Piaget

During the 1800's, controversial educators like Herbart, Froebel and Pestilozzi, were instrumental in re

forming educational practices throughout Europe; their primary premise: children learned best through real experiences, love and freedom rather than harsh discipline and rote recitation of facts (Gartrell, p. 6). Johann Heinrich Pestalozzi (1746-1827), stressed the dignity and worth of each child, the full development of each student's unique abilities, to include his educational, emotional, moral and physical growth. Pestalozzi's educational theories were based on what he called *Anschauung*, which translates to: having a perception based on observation. His concepts were shared by other educational revisionists like Froebel, who believed that the nature of a child was basically good and that shortcomings in a child's personality were the end results of his experiences. In his book, Manual for Mothers, Froebel states:

There are many faults...which arise simply through carelessness. When children act on impulse which in itself may be harmless or even praiseworthy, they can become so entirely absorbed that they have no thought for the consequences, and indeed from their own limited experience can have no knowledge of them... Moreover, it is certainly true that as a rule the child is first made bad by some other person, often by the educator himself. This can happen when everything which the child does out of ignorance or thoughtlessness or even from a keen sense of right and wrong is attributed to an intention to do evil. Unhappily there are among teachers those who always see children as mischievous, spiteful...whereas others see at most an overexuberant sense of life or a situation which has got out of hand (Lilley, p. 135).

In his views, we see Froebel's clear understanding of the need to have a guidance approach to discipline; a view

shared by educators today, and the basis for debate on the use of corporal punishment in public schools. Like Froebel, Marie Montessori, the first woman psychiatrist in Italy, maintained that the "child is in a continual state of growth and metamorphosis, whereas the adult has reached the norm of the species" (Standing, 1962). The concept of "scientific pedagogy" was shared by an American contemporary, John Dewey. Both Dewey and Montessori criticized discipline approaches based on pervasive practices. In The Montessori Method (1912, translated in 1964), she stated:

We know only too well the sorry spectacle of the teacher who, in the ordinary schoolroom, must pour certain cut and dried facts into the heads of the scholars. In order to succeed in this barren task, she finds it necessary to discipline her pupils into immobility and to force their attention. Prizes and punishments are ever-ready and efficient aids to the master who must force into a given attitude of mind and body those who are condemned to be his listener (1964, p. 21).

Montessori's alternative discipline methodology called for a more respectful approach to the child's development, contending that the purpose of discipline and education is the same: the development of responsible decision-making processes in the child. Considered to be the architect of progressive education, John Dewey raised America's consciousness about the kind of education that was needed in a progressive society. His views on discipline were much the same as Montessori's; dependent on the situation and curriculum followed. In his monograph "School and Society," Dewey states:

If you have the end in view of forty or fifty children learning certain set lessons, to be recited to the teacher, your discipline must be devoted to securing that result. But if the end in view is the development of a spirit of social co-operation and community life, discipline must grow of and be relative to such an aim. ...Out of the occupation, out of doing things that are to produce results, and out of doing these in a social and co-operative way, there is born a discipline of it's own kind and type. Our whole conception of discipline changes when we get this point of view (p. 16-17).

Dewey's writings, over a sixty-year period, came to be known, in the American educational system as the **Guidance Approach to discipline.**

The Developmental and Self-Psychologists

Jean Piaget, a pre-eminent Swiss psychologist, shared many of the views of Dewey and Montessori, agreeing that education must be a cooperative endeavor. His approach to discipline was that (it) must respond to the context that the learning environment must be one that is positive, interactive and safe in the eyes of the child. Piaget equated the classroom to a cooperative government; in his book, The Moral Judgement of the Child (1932), he stated:

The essence of democracy resides in its attitude towards law as a product of the collective will...it is therefore the essence of democracy to replace the unilateral respect of authority by the mutual respect of the autonomous wills. So that the problem is to know what will best prepare the child for the task of citizenship... If one thinks of the systematic resistance offered by pupils to the authoritarian method, and the admirable ingenuity employed by children the world over to evade disciplinary constraint, one cannot help regarding as defective a system which allows so much effort to be wasted instead of using it in cooperation (p. 366-367).

Among those who defined education in a constructivist perspective; that is to say, that the child constructs knowledge by acting on the environment, is Constance Kamii, David Elkind, David Wiekart, and Rosalind Charles (Gartrell, p. 9).

Self Psychologists like Erickson, Maslow and Combs theorized that: to the extent that a child felt safe in their circumstances and valued as a member of the group, they would see themselves positively and not need to act out against authority. The importance of self-image is revealed throughout the studies conducted by Purkey (1970) and Havac-heck (1970); their collective contention: if a child feels good about himself he will get along better with his peers and be less likely to oppose authority figures or act out against the world in general.

Rudolph Driekurs, a Vienna-born psychiatrist and educator, developed a pragmatic approach to understanding the purposes of inappropriate behavior in children and for stimulating behavior that was cooperative without the threat of punishment or the promise of rewards. Driekur's basic premise is that unacceptable behavior is the result of mistakes made in an attempt to get along with others. This placed misbehavior into the context of social acceptance, and out of the context of what motivated the child to misbehave. His approach to discipline was to make judgements on

the child's morality then employ strategies to help him learn acceptable alternative behaviorisms.

The need for each child to have a sense of well-being, acceptability and worth in society was further explored by another guidance approach traditionalist, Haim Ginott. In his book, The Teacher and Child (1972), Ginott addresses the concept of "psychology of acceptance" when he stated:

Where do we start if we are to improve life in the classroom? By examining how we respond to children. How a teacher communicates is of decisive importance. It affects a child's life for good or bad. Usually we are not overly concerned about whether one's response conveys acceptance or rejection. Yet to a child this difference is fateful, if not fatal. Teachers who want to improve relations with children need to unlearn their habitual language of rejection and acquire a new language of acceptance. To teach a child's mind a teacher must capture his heart. Only if a child feels right can he think right (p. 69).

Ginott's writings emphasized the need to approach discipline with a respect for the feelings, dignity and individuality of each child; a nurturing and caring attitude that exemplifies the guidance approach to discipline.

In the seventies and eighties there was a resurgence of a "back to the basics" reformation. Conflicting with the theories of Ginott, Piaget and other self psychologists, teaching methodology became more prescribed, less child-oriented and more rote learning oriented. Classrooms became more crowded and students were made to sit in their seats for longer periods of time doing worksheets, and following directions passively (Gartrell, p. 12). The lack of person-

alized attention, which Piaget and Pestalozzi theorized gave rise to apathy, boredom and recalcitrance.

It is imperative that we stop violence, apathy and drop-outs in schools, and good discipline has its place in any school. But that is not enough. A well-disciplined school is more than a group of students sitting in their seats being "good." It is a place that incorporates teachers, administrators and students all working together to have a total commitment toward a common goal of learning.

One goal must be the establishment of good and proper order and discipline on the school campus at all times. Perhaps the key to this end is mutual understanding, respect and self-discipline on the part of everyone who is part of the learning experience: students, teachers, administrators and parents. All share in the responsibility of educating our children and young adults; all share in the failure.

Abating School Discipline Problems: Restoring Self-Esteem

In his book, Dare to Discipline (1987), Dobson tells us that a child is (in-part) a product of two environments: what he sees and what he feels. It is imperative that he knows the reality of both of those worlds, but more importantly that he knows to what extent he is involved and responsible in them, for often a child acts on impulse in the hopes of doing something that will be looked on as being good and correct.

The reaction of his peers or other individuals to his actions is the bulwark of his self-image and self-esteem. Once a child either believes or is led to believe that he is "unworthy" or "less" than others, he begins to look on the world as a place where he cannot be a winner. If this situation is allowed to persist, the child will become a winner in his own way, perhaps by acting out, being verbally abusive or through physical violence. Any act that garners approval from a child's peer group will be construed as positive to that child.

In his book, Classroom Discipline and Control, Chernow (1981) stated:

People of any age can't discipline themselves unless they feel good about themselves. The first step in self-discipline is self-esteem...Do you accept your pupils as they are? Do you appreciate their differences?...some pupils lead rather bizarre lives outside school. Some of their home situations are stranger than fiction....Yet, we must accept them to be of genuine worth and able to learn... (p. 127).

Strategies Toward Building Self-Esteem

1. Recognizing and understanding a child's uniqueness is very important and tantamount to success or failure in the building process. Although it might be said that a child will seek out a group of peers to establish his oneness the importance to be appreciated for his "uniqueness" is equally as important (Maslow, 1962). This can be accomplished simply by letting the child know that he has talents that are not necessarily

shared by others in the class, i.e. a special talent, perhaps above and beyond those equated to the school environment.

2. Utilize his talents in the classroom. In this way the child has an opportunity to show his talents and be appreciated for his special skills (it is important to mention here that this strategy must be with the child's approval, and must be stopped when that approval is vacated by the child).

3. Encourage him to use all of his positive talents, providing sustaining input on his positive attempts to improve, and dissuading him from using his talents in a negative way, i.e. vandalism. Encouragement can come in many forms: one-on-one, in the classroom environment, in front of other teachers and administrators, schoolwide or city-wide. Again, the teacher must be aware of each (individual) student's comfort zone for receiving praise.

4. Be Consistent, be fair. Learning that they have to be accountable for their actions is one of the hardest lessons most at-risk students have to learn. Letting them know that you do not play favorites, and that you will hold them responsible for their actions sends the message that you want them to be a part of the class, and that they must adhere to the rules that everyone else must adhere to. Remember: the rules are person

and gender non-specific; treat all of the students the same, they're all "Super Stars!"

5. Don't set them up for failure. Understand the strengths and weaknesses of your students. If necessary give them pre-tests to determine in which reading, math, or science group they would be best suited. For some students, three out of twenty on a math test is unbelievable. Remember, small triumphs lead to great victories.

6. Challenge the student; he will rise to your expectations, or someone else's. If you expect him to be a failure based on his past efforts, he won't let you down; because it's much easier (and more cool) to fail than it is to be successful. Set those goals together, establish a rapport that shows him that you are here for his benefit. Flavor your challenges with interesting "side-trips" that are germane to the subject and still interesting to the student. Praise is worthy. Perhaps the only rewards that he needs, for his "extraordinary" efforts is to be recognized and reinforced by you. And above all else, he must recognize that rewards are earned for efforts, not given as an appeasement. Having a cooperative relationship with a student forms the basis of learning and reduces the likelihood of the student being disruptive (Parrish, Cataldo, Kolko, Neef and Egel, 1986).

Parental Involvement Means Fewer Discipline Problems

The Metro-Nashville school district has a unique approach to parental involvement in the educational process. The Regional Intervention Program teaches parents how to manage students with severe discipline/behavior problems. Parents are taught intervention techniques that will assist them in overcoming or averting classroom problems. These parents are then taught how to teach other parents. In his article in American Education, Reginald Stewart stated:

Experience has demonstrated that the mothers are far more effective than the pros in dealing with their own children, once they learn the proper techniques. The techniques employed at the Nashville Center involve behavior modification: praising him when he is good, ignoring him when he is bad (Phillips, p. 98).

Interventions in the Home

Environment plays an important role in a child's emotional and social development (Mendler and Curwin, 1983); for example, if a child is constantly exposed to real or perceived danger, violence, lack of adequate food, shelter and a dysfunctional family, he can be expected to have school behavior problems. Intervention techniques in the physical environment involve changes in the present settings in which a child derives influence, either in the home-place or school itself. Changes within these environments often affect others who share them with the child (Evans and Schmid, p. 157), e.g., a VCR placed in the home to afford the family an opportunity to view tapes on family communica-

tions skills may be used for recreational tapes, reducing the time of family interaction.

Physical changes within the social structure of a classroom may cause unanticipated problems which may exacerbate the problem. An example of this situation, that a change in student seating may be perceived as a means to stop one child from feeding into another child's negative behaviorism, and this may be an appropriate short-term solution. However, if the separation causes additional fear and mistrust, the child may react with additional inappropriate behaviors; this time out of fear or anger, not out of mischief brought on by monotony or boredom. This does mean that a change in the classroom environment should be avoided, in some situations such changes are advantageous; careful consideration must be made to weigh all the aspects of such a move, coupled with continuous monitoring for possible deleterious side effects.

Moving a child to another school will cause more feelings of alienation, fear and anger; the very ingredients that manifested themselves as inappropriate behaviorism in the previous school or home environment (Maslow, 1979).

The most important aspects of environmental interventions are: identify the area in which physical intervention can best be employed, be familiar with the (legal) extent to which you can act, consult with parents, establish a purpose for the intervention, keep the parents involved and informed

via weekly conferences, and set goals of the intervention not to fix blame, but rather to identify ways to improve or enhance a student's progress. Early identification of the need and appropriateness for intervention techniques is tantamount to success or failure for an at-risk student (Burke, p. 93).

Discipline versus Punishment: More Than Semantics

It is important for us as parents, educators and administrators to understand the importance of teaching a child how to be responsible for their actions; now and in the future. Through their growing experiences they become what they have been taught to be. Although we try to raise effective children we (sometimes) allow pictures of what we think they should become to influence their preparations. We should be setting short-term goals like behaving responsibly in school, completing assigned work, helping around the house, being honest, having respect for others and being able to do something that is responsible and worth-while when left alone, communicating with others, even though they may disagree, and negotiating with parents and abiding by the decisions made.

This is not a fail-safe plan; children may decide to break the rules, then challenge whoever represents the authority behind those rules to do something about it. It then becomes necessary to use one, or more, courses of

action to correct the child's poor decision. The actions that parents, and in the case of schools, administrators and teachers, take may follow one or two directions: disciplinary actions or punishment. These terms are not to be confused as one and the same. In his book, Control Theory: A New Explanation of How We Control Our Lives, Glasser tells us that we often use the term discipline as meaning punishment for unacceptable behavior (Glasser 1984).

Discipline, on the one hand, is effective, positive and longer-lived than punishment. It begins with trying to teach the child a set of reasonable rules, usually through negotiation. Punishment (the stimulus response technique) usually starts and finishes with imposing rules that are not negotiable. Compliance is enforced through inflicting some form of pain, such as corporal punishment. Children who are on good terms with their parents, teachers or other authority figure will follow rules with little protest, even if those rules are unreasonable (Glasser, p. 197). If a child is accustomed to physical punishment he may be inclined to accept the short-term discomfort for the "benefits" of his misbehavior.

Discipline (according to Glasser, and consistent with the control theory method) involves the use of consensual sanctions, e.g., loss of privileges or freedom. When the agreed-upon behavior is not followed, the agreed-upon sanctions are administered, after the child's behaviors are

discussed. The loss of privileges or other consequences must be extended until the child is willing to negotiate. In the school environment this technique has been used with good results. However, it requires the teacher and student to spend some time together establishing the "rules of the road" and the consensual agreement. For this reason this form of discipline is best suited for individual students and not the class as a whole.

Another factor that separates discipline from punishment is: with punishment there usually is no teaching or negotiating, and no attempt to clarify the reasons for the rules as part of the procedure. The two most serious shortcomings of punishment are: 1) it does not take into consideration that the person who is breaking the rules may not be seeing the same picture as the one who made the rules, and 2) there is nothing in the punishment technique that allows the child to change the picture he has of what constitutes right and wrong behavior. Although the teachers in the following case studies referred to the techniques they employed in different terms, they all used positive discipline procedures as an alternative to corporal punishment.

Albeit corporal punishment is still the preferred method of punishment in our society (Berger, 1991; deMause, 1974), the long-range benefits associated with it are negligible (Glasser 1984,).

Conclusion

Research indicated that a student's educational achievement and cultural success in the public schools may very well be predicated on a number of direct and indirect influences, such as: school location (rural, suburban, inner-city, or urban), instructional style of the teachers, expectations of the parents, child and teachers, and class size. Current philosophies on teaching techniques are at odds as to which is the most effective. This dichotomy also exists in the area of school discipline. With the emergence of a new attitude toward more stringent discipline practices (Canter, 1979), and less emphasis placed on tolerance and understanding (Piaget, 1932), the public school systems have been placed in an untenable position. The need to have a safe, well-disciplined school campus has never been greater; as evidenced by the steady rise of crime on campuses since 1979. The threat of gang-related crime is now commonplace on school yards and in classrooms throughout the nation. The thread that ties pre-teens and young adults to these gangs are self-esteem related. The concept that smaller classrooms may be the key to higher rates of student achievement was proven by the STAR project, and subsequent longitudinal studies conducted in the Tennessee school systems. An additional positive effect of reduced STR's was evident in this study; students who were placed, and remained in a reduced STR classroom through the third grade, had fewer

incidents of misbehavior in the third grade, had better department ratings in the fifth grade, and had fewer incidents of expulsion or suspension in the seventh grade. Review of the data generated by the STAR project, school department reports, SIMS reports, telephonic and written questionnaires were conducted with numerous teachers from nine Tennessee public schools. The portraiture methodology was used to describe the nine different classrooms used in this study. Quantitative research, in the form of the ANOVA statistic was utilized to analyze and compare the data generated by the SIMS reports, and classroom department reports to determine, statistically, if there was a correlation between small class size and classroom department. In order for teachers, administrators, students and parents to realize a growing trend in better classroom discipline, it first became apparent that a number of factors must be changed: more emphasis placed on the total needs of the individual, less emphasis placed on rote teaching, more attention placed on group dynamics instead of standardized test results. Teaching styles had a powerful effect on all class types; the most popular style was re-education/group teaching, or the incorporation of students-as-teachers concept. Classroom disciplinary methods differed only slightly; the majority (80%) of the teachers preferred re-education and diffusing techniques to re-direct the child's behavior. A small number of teachers (9%) still held that

some (mild) form of corporal punishment was appropriate, and the remaining (11%) teachers had a form of democratic discipline procedure, in which the teacher involved the entire class in the intervention techniques. The research also reveals that the large majority of teachers (91%), and 83% of administrators contend that they have seen the most positive results from the counseling, or behavior modification approaches to discipline, and the least results from corporal punishment. Finally, the research herein indicated that professional educational preparation has not been adequate to prepare teachers and administrators for the discipline-related challenges that are prevalent with most of our at-risk students.

CHAPTER III

METHODOLOGY

This longitudinal study compared the classroom discipline, deportment and behavior of 3rd, 5th and 7th grade students in select schools in the Metro-Nashville and Knox County, Tennessee school districts. The design had to provide answers to questions that meet the requirements for a longitudinal study that reviewed the cross-sectional effects of the treatment over a four-year period and answer questions related to the pervasive effects of class size on deportment and discipline.

In Project STAR, the longitudinal experiment that provided the base for the present study, there were two key design decisions made: to have a within-school design, and random selection/assignment of students and teachers into class type(s). The primary analysis was built on discipline reports from the Student Information Management System (SIMS), and classroom deportment reports from each participating school. The methodology employed to compare the three class types is presented in this chapter. The discussion is divided into five main areas: choice of design, subjects, treatments, dependent measures, and instrumentation.

Choice of Within-School Design

The potentiality of having large differences in schools due to resources, teachers and students, was a prime factor in selecting the within-school design. Major sources of possible variation in student deportment as well as achievement, attributed to school effects, are reduced in the within-school design. This design required each school to have a sufficient enrollment in each grade to provide at least one regular with full-time aide (22-25 enrollment) class, one regular (22-25) class and one small (13-17) class (Project STAR Technical Report, p. 10).

This design also assured that there would be the same kinds of students, curriculum, principal, policies, schedules, and annual expenditures for each class type by school, thus eliminating the need for a control group and the potential problems which might be associated with it.

Because of the large number of schools chosen to participate in Project STAR (79 schools, approximately 6,500 students participating, and 100 classes in each class type), the decision was made to limit the number of schools in this present study to four from each of two study school districts, with a total participant enrollment of 590. This decision was based on the belief that a total N of 590 was both representative and manageable, given the resources available. The number of classes by type was based on the grade level enrollment in each participating school.

The within-school design required each selected school to have a minimum of one of each of the class types, with an enrollment in the small class type between 13-17 students, regular class type between 22-25 students and a regular with a full-time aide class type between 22-25 students.

Selection into the Three Conditions

In the initial project, 79 elementary schools were selected. These schools served rural, urban, suburban and inner-city students. The number of classes per school was based on the total student enrollment in each school. To better facilitate the measurement of the effects of class size, students who were placed in a reduced/small class in Kindergarten remained in a small class through the third grade. Students who were selected for the regular and regular with aide classes did not (always) remain in one particular class type throughout the study. Due in part to parent concerns and teacher-identified discipline problems, some students in regular and regular with teacher's aide were randomly re-assigned in the first grade, but not to small classes. Students were not permitted to interchange between class types from the first grade on as this could create problems in conducting the longitudinal analysis. New students were admitted into the treatment classes, at random and were tracked with the project.

To facilitate following the student throughout the study, each participant was assigned a student identification number that corresponded to his/her initial class type assignment. Table 3.1 shows the number of schools and student participants for each year of the study by location: rural, inner-city, urban and suburban. Student Information Management System (SIMS) reports from Metro-Nashville schools were not made available for the 1992-93 school year. The sharp drop in "tracked" students from the 3rd to 5th grade, was attributed to reasonable attrition due to transfers within the system.

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Table 3.1

**Number of Schools and Students by Location
Grades 3, 5 and 7 (1989-1993)**

Location	Grade 3 (1988-89)		Grade 5 (1990-91)		Grade 7* (1992-93)	
	Stud.	Schools	Stud.	Schools	Stud.	Schools
Rural	100	1	54	1	12	1
Urban	160	3	115	3	0	0
Suburb.	130	1	70	1	28	3
Inner-City	200	3	142	3	36	4
Total (N)	<u>590</u>	<u>8</u>	<u>381</u>	<u>8</u>	<u>76</u>	<u>8</u>

* Data from Knox County SIMS reports: Suspensions only
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The low total N number for the seventh grade is attributed to the research design; only information pertaining

to suspensions (class type notwithstanding) was utilized for this part of the longitudinal analysis of pervasive benefits. SIMS reports from Metro-Nashville Schools District were not made available by the administration. Since this portion of the analysis was intended to show total number of suspensions, by class type, sex and race, it was decided by this author that one school district would provide an appropriate sample and that a comparison of the two school districts was adequate to base a set of assumptions about students' behavior in the fifth and seventh grade who had been in small, reduced with teacher's aide and regular class size in K-3. Table 3.2 describes the enrollment plan for the distribution of students by design type and class type. Data for this portion of the analysis was gathered from seventh grade regular, and regular with teacher's aide classes only. A comparison of schools by numbers of suspensions was not possible based on the data provided on the SIMS reports. Reduced classrooms were not found at the seventh grade level in any of the participating schools, however, a number of schools (N=4) reported have some classes had STR's between 18 and 21/1. This was consistent with their inclinations toward reduced classrooms based on the conclusions of the original and longitudinal STAR Project results.

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Table 3.2

Plan for Distribution of Students and Classes in Within-School Design: Pervasive Benefits Project (1993-1996), Third Grade, Metro-Nashville and Knox County.

Design Type	Enrollment (ADM)	Classes (N)	Class Types
Rural	39-53	(4)	S, S, R+, R
Urban	41-53	(4)	S, S, R+, R
Inner-City	158-167	(12)	S(6), R+(3), R(3)
Suburban	303-351	(19)	S(8), R+(4), R(7)

S=Small Class (1:12-15) R=Regular Class (1:22-25);
R/A=Regular Class with full-time Aide (1:22-25)

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The choice of schools by location (rural, inner-city, suburban, or urban) and class types (reduced, regular with teacher's aide and regular with no teacher's aide), was made by the participating school district's administration. Participating teachers were all volunteers, and had no (known) personal interest in the outcomes of this study.

Subjects

Eight elementary schools were selected from the Metro-Nashville and Knox County school systems. Although each year of the study included more than 600 students, only 1842 were in the same class-size condition for all four years (K-3; 1985-89). The following criteria were used by the STAR consortium to determine school types:

Inner-city and suburban schools were located in metropolitan areas. Schools that had more than half of their students on free or reduced cost lunches (indicative of a low-income family background) were tentatively defined as inner-city. Schools in the outlying areas of metropolitan cities were classified as suburban. In non-metropolitan areas, schools were classified as urban or rural depending on the location of the school. If located in a town of over 2,500 and serving primarily an urban population (the census definition of urban), the school was classified as urban. All other schools were classified as rural. (Proj. STAR Technical Report, 85-90, p. 5).

Five-hundred-ninety third grade students enrolled in primary school in central Tennessee served as subjects in the study. As this was a longitudinal study, these same students were tracked as far as the seventh grade in the same school districts. To participate in the study, each subject had to have been randomly selected for the STAR project as a member of one of the three conditions, having remained in that condition through the third grade and in the same school district through the seventh grade. The two selected school districts in the central Tennessee school systems, Metro-Nashville and Knox County Schools met the subject-criteria of the study.

The first task in the selection process was to identify students that were representative of the three conditions as well as the four school types (rural, inner-city, suburban and urban). This end was not realized, albeit three of the school types were represented. Because the selection of the students in the study was accomplished in the initial STAR

study, it was not necessary to make another random selection in the longitudinal study.

Five third grade and four seventh grade classes from each school district were selected to represent the original 6,500 students (the original STAR design did not consider the discipline aspects of the reduced STR scenario). To assure that students would not subplant an opinion as to the behavior that may be expected of them, they were not informed as to what particular class type they represented, nor of the expectations associated with the other classes/class types and their own. Table 3.3 graphically describes the gender/race configuration of the sample groups in grades three and five from Metro-Nashville and Knox County School systems.

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Table 3.3

Gender/Race Configuration for
Third and Fifth Grade Students. (1988-91)
Metro-Nashville & Knox County Schools*

Metro-Nashville				
Grade	Wht/Male	Wht/Fm	Blk/Male	Blk/Fm
3	101	120	70	73
5	90	113	63	65
Total	191	233	133	138

* Data were collected using teacher department reports, and represents the total number of students in the sample groups, not total school ADA's.

Knox County Schools

Grade	Wht/Male	Wht/Fm	Blk/Male	Blk/Fm
3	59	50	67	39
5	63	51	67	39
Total	122	101	134	78

* Data were collected using teacher department reports, and represents the total number of students in the sample groups, not total school ADA's.

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Treatments

The independent variables used in the study were department reports in the third and fifth grades, and Student Information Management System (SIMS) disciplinary and suspensions reports in the seventh grade. Additional information on specific discipline problems, teaching techniques and target behavior intervention strategies were acquired via questionnaires (Appendix A and B).

To maintain continuity throughout the study, the teachers involved in the longitudinal study were the same teachers who took part in the original STAR project. Teachers were asked to evaluate each student utilizing the established monthly, quarterly and annual department reports (Appendix C), utilizing the following criteria: #1 the highest rating possible to #5 the lowest rating possible. These criteria were used to form treatment one of the ANOVA statistic; class size would be treatment two. Individual teachers were given the autonomy to establish the rating

criteria with their students. Those teachers who elected to participate in this study agreed upon the following standardized rating system to evaluate student deportment: #1= very good, #2= good, #3= average, #4= on the bad side, and #5= bad/very bad. The decision to standardize these ratings served to minimize the threat to internal validity that might result from having qualitatively differentiated ideas as to what constitutes a particular rating level versus another.

Teachers were requested to include a short narrative to support the numerical ratings. These narratives included: "Outstanding student, gifted, intelligent," " Good student, socially well adjusted," and "Defiant, bright, but no self discipline, showing some improvement." In some cases the narratives were indicative of teacher involvement in the child; e.g., "...overcame severe home problems to excel at school. Was the kind of student you could easily take home and nurture. Never seemed to let his situation get him down." And: "...he had difficulty with home relations, never could get a grasp on who was in charge." Although these narratives were informative, only the deportment and SIMS reports were formally in this study.

Portraiture Methodology

Qualitative research is organized interpretive inquiry, guided by the power of grounded theory (Glaser and Strauss, 1967). In this vein a tentative theory is developed and subsequently refined from the beginning of the research to the end. Grounded theory evolves inductively from the raw data collected, without reference to any hypothesis, thus allowing the data to formulate its own body of assumptions.

Portraiture, according to Sara Lightfoot, is a form of qualitative research that has been described as a "holistic, complex, contextual description of reality which moves from inside out, searches out spoken institutional and interpersonal conflicts, listens to minority voices and deviant views, and seeks to capture the essence, rather than the visible symbols, of school life" (The Good High School, p. 13-14).

In her dissertation: A Portraiture of Excellence in Female Educational Leadership (1989), Wilson states that:

Portraiture, in effect, then, views all characteristics, whether major or minor, and reflects them objectively on the printed page. It is an honest attempt to present the findings with complete accuracy. In order for this to occur, the researcher must place himself inside the social climate and objectively view the entire culture.....They understand the parts in the relationship to the whole and find meaning as they fit the pieces together....All viewpoints of the people involved should be carefully weighed and honored...Furthermore, with regard to portraiture, one must maintain a balanced viewpoint by recognizing the need to maintain certain viewpoints while changing others (p.69).

Select Classroom Disciplinary Procedures: 5th Grade

VIGNETTE #1

Classroom profile: Grade 5

Class Type: Regular (STR=21/1)

School Type: Inner-City

Gender/Race Profile: White Males=2, Black Males=10

White Females=2, Black Females=7

Classroom "A," from Sarah M. Greene School, is one of five middle, Knox County Schools that was picked to participate in the S.T.A.R. Project and this longitudinal study. The class was made up of students from five elementary schools in the Knoxville school district and were randomly assigned to this class. Of the 21 students assigned to the class, 4 were from a reduced STR class, 5 were from a regular class with teacher's aide, and 12 were from a regular class with no teacher's aide.

Teacher "A's" responses to the questionnaire, (appendix A) indicates that she uses the Socratic/re-education methodology of teaching curriculum subjects, and the points/rewards system to motivate her students. She also indicated that she has had no experience with a reduced classroom, and that most of her experience has been in classrooms that have at least 21 students, and as many as 30 students. According to her responses, the most frequently seen inappropriate behaviorisms have been (ranked by numbers of occurrences): disobeying the teacher, loud talking, tardy

for class, foul language, threatening other students and fighting.

The Ecological Methodology

Teacher A indicated that the majority of the teachers in this school utilized the behavioral targeting methodology for dealing with discipline problems. This particular method closely follows the ecological approach outlined by Evans and Schmid (Behavior and Instructional Management, 1989). In their treatise, Evans states:

In the ecological model, management programs focus on specific behaviors as indicators of harmony or disharmony among elements of an ecosystem. Management of disturbance, therefore, is a matter of bringing the ecosystem back into reasonable balance through adaptation, assimilation, secession, or expulsion. Intervention strategies and tactics are designed to modify elements of the three environments to achieve stability. Four steps make up the model for ecological management: targeting, collecting and recording data, intervening, and evaluating.

Teacher A indicated that she utilized immediate intervention to stop the inappropriate behavior. She then targeted the behavior to ascertain what environmental variable may have been the cause of the activity. The teacher then decides what must be done to either eliminate the cause of the misbehavior, or manipulate it in a manner that renders positive results. Once these behaviors have been targeted, the teacher collects all the associated data dealing with this particular student and this particular behaviorism. Data collection is a vital part of this management tech-

nique, as teacher A indicated; she keeps "accurate records" to which she can refer. Once the target behavior has been recognized, teacher A uses another set of intervention techniques that are specifically designed to focus on the physiological or psychological elements that caused the targeted behavior. The teacher then evaluates the intervention techniques, and determines if they were/are successful, should be modified, discontinued in lieu of another technique, or extended until the desired effect is attained. Although the teacher has control over some of the antecedent and consequences, e.g., seating arrangements and instruction, factors such as health, impairments and resources are environmental conditions that the teacher has no control over (Evans, p. 47).

All of the teachers from Sarah Greene school used a daily point sheet that each parent was to read and send back to the school by the following day. Parent involvement was considered to be an important factor by all of the teachers interviewed, especially in the targeting, reviewing, and assessment phases of the re-education strategy.

One of the interviewed teachers indicated that she used isolation, loss of privileges, and referral for out-of-school suspension, as an option if the re-ed. model was ineffective. None of the teachers subscribed to corporal punishment, though Sarah Greene's principal did have that

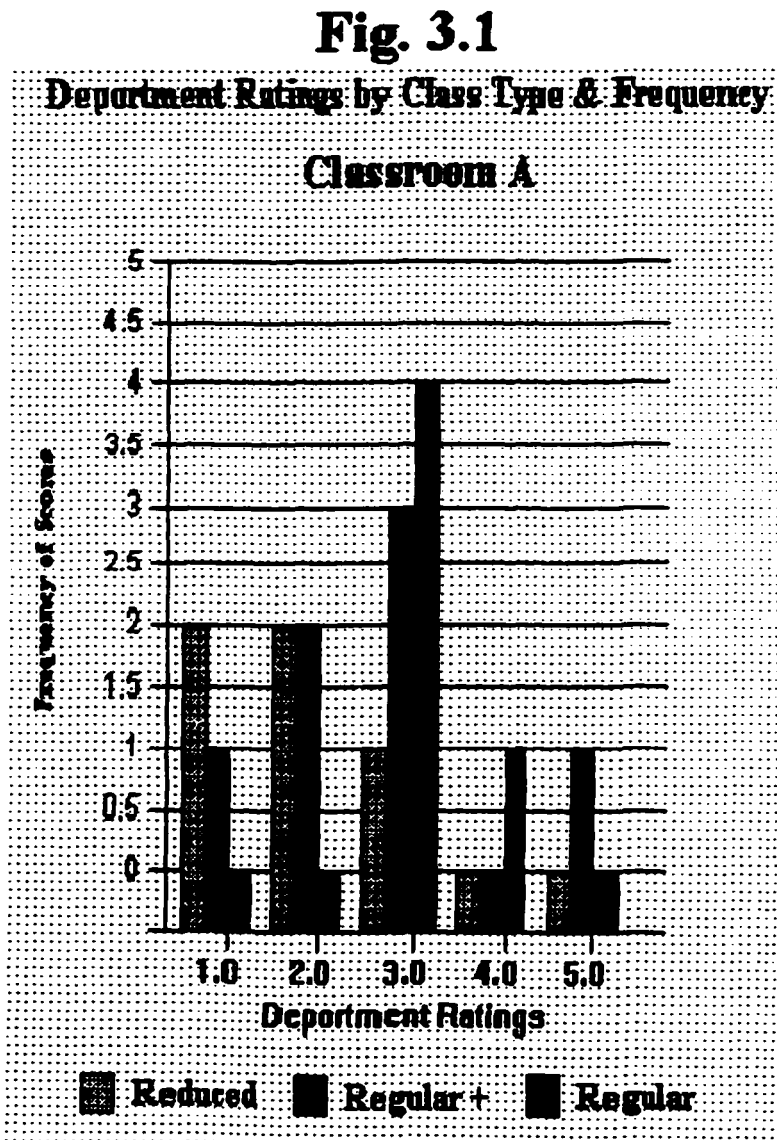
option. The general consensus was that it was not used unless specifically requested by the parent(s).

Using an agreed-upon set of teacher-generated standards for judging classroom deportment, teacher A graded each student as to: 1) his ability to get along with other students, 2) his academic achievements, (this author uses the generic term "his" as a generality to denote all students), 3) his rapport with the teacher and, 4) his attitude toward school in general. The range of this rating is from 1.0 (highest possible), to 5.0 (lowest possible), a rating of 3.0 being considered as "average."

Figure 3.1 graphically demonstrates the range in deportment scores in classroom "A" by initial class type. In the reduced STR classification (4 students), the deportment rating ranged between 1.0 (2 students) to a low of 3.0 (1 student) with a mean of 2.0 (2 students fell into this category). In the regular with teacher's aide classification (12 students), the mean score was 2.8, with a high of 1.0 (1 student) and a low of 5.0 (1 student). The remainder of the class scores were as follows: rating of 2.0 (2 students), rating of 3.0 (3 students), rating of 4.0 (4 students). In the regular with no teacher's aide classification (5 students), the highest score was 3.0 (4 students), and low of 4.0, (1 student), for a mean score of 3.1, slightly lower than average. The classroom mean score for

department was 2.6, or slightly better than average, or (3.0).

The overall rating (mean) score was 3.1, or slightly lower than average (3.0). The mean scores by gender and race were as follows: white males= 2.3, white females= 2.3, black males= 2.7, and black females= 3.0.



VIGNETTE #2

Classroom Profile: Grade 5

Class Type: Regular (STR: 23/1)

School Type: Suburban

Gender/Race Profile: White Males=6, Black Males=3, White Females=9, Black Females=5

Located approximately five miles outside metropolitan Nashville, Andrew Jackson Middle School is one of four suburban Metro-Nashville schools that were picked to participate in this study. Selected as one of seventy nine schools to participate in Project STAR, and three (subsequent) longitudinal studies, it has a long history of being an advocate of smaller classroom STR's, and is, at the writing of this dissertation, in the process of changing over to reduced classrooms throughout the district.

Classroom B was one of four classrooms randomly selected in the same manner as the previously profiled class. Of the 23 members of classroom B, 5 were from a reduced STR through third grade, 4 were products of a regular classroom with teacher's aide, and 14 were from a regular classroom with no teacher's aide. All of the students had remained in their prospective class types through the third grade.

Teacher B's responses on the discipline questionnaire indicated that she used a re-education teaching style, often using small groups, and individual efforts to facilitate that style. She also indicated that she had few discipli-

nary problems in the classroom, but what problems she did have were: threats to adults, leaving room without permission, leaving the school building and fighting. This teacher stated that the technique used to handle discipline problems was immediate intervention to stop the inappropriate behavior or activity, then an "appropriate/fair" consequence. This particular style was embraced by two of the four teachers interviewed from this school, both of whom had been in the teaching profession for over twelve years. Closely following the Assertive Discipline model (Canter, 1989), the teacher had specific classroom rules and regulations by which all of the students were familiar and required to obey. Clarity of the standing rules was an essential part of this particular model, as was the necessity for all the members of the class to realize who was in charge, and the consequences that may befall them should they disregard the established rules. Teacher B indicated that she used a form of re-education program for her discipline strategies as well as her teaching strategy. Using time-out, group counseling/problem solving techniques, this teacher made one student's inappropriate behavior a class problem, not an individual student's problem. The class as a whole went about solving the particular discipline problem; thus, the teacher used a very strong psychological tool, peer pressure, to eliminate an inappropriate behavior. As was the case with teacher A, teacher B keeps "episode"

notes to which she can later refer, or use to establish long-term personality traits that may herald more serious behavior problems.

Teacher B used the same (general) guidelines for the assessment of her student's behavior in the classroom as was used in classroom A. Figure 3.2 graphically demonstrates the department ratings in classroom B.

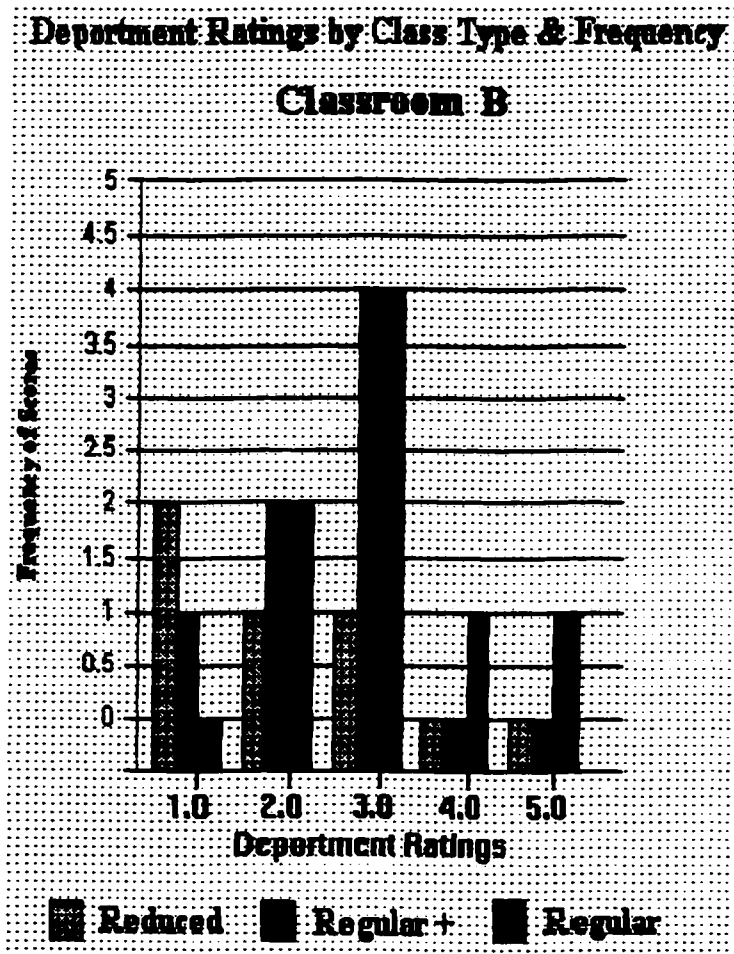
Classroom B was comprised of students representative of all three classroom types from the original STAR project. Students who represented the reduced STR classification (4 students), recorded ratings that ranged from 1.0 (two students) to 3.0 (one student), with one student scoring a 2.0. The class mean score was 2.3, or slightly lower than a "very good" rating of 2.0, yet almost one point (.7) higher than an average rating of 3.0.

Representing the regular with teacher's aide classification (seven students), there was a range of scores from the highest rating of 1.0 (1 student), to a lowest rating of 3.0 (4 students); and a score of 2.0 (2 students) completing the cell. Students who represented a regular with no teacher's aide classroom, (8 students) recorded scores ranging from a high of 2.0 (2 students) to a low of 5.0 (1 student). There were 4 students who received a rating of 3.0, and one student who received a rating of 4.0.

The overall rating (mean) score was 3.1, or slightly lower than average (3.0). The mean scores by gender and

race were as follows: white males= 2.3, white females= 2.3, black males= 2.7, and black females= 3.0.

Fig. 3.2



VIGNETTE # 3

Classroom Profile: Grade 5

Class Type: Regular (STR: 13/1)

School Type: Suburban

Gender/Race Profile: White Males= 13,

Alice Bell school is located approximately three miles north-east of Knoxville, and is part of the Knox County school system. Selected as a STAR Project school it supplied data related to reduced class size until 1992, and was designated as a middle school, with a total enrollment of 50 students. In 1993, it was re-designated as a special education school for students designated as "at risk," and had received either in-school suspension, out-of-school suspension, or were at-risk of being suspended for inappropriate behavior.

Designed to accommodate students from sixth to twelfth grades, classes were designed to cater to a specific behavior type, e.g., physically aggressive, verbally aggressive, etc. A number of these students had been referred to the school by the department social services, or the county juvenile court.

Students are assigned to one of two programs: short-term, thirty days to six months, or long-term, up to one year. High School students enrolled in the program during their senior year are allowed to graduate with their class if they complete the Alice Bell program. Currently, there

are one-hundred-fifty (6-12th grade) students assigned to the program.

Although Alice Bell school has both male and female students, the majority of the classes will have either male or female students exclusively. The race/gender break-down: 50% white, and 50% Black, 60% male, and 40% female is not indicative of the Knox County School system's discipline profile, of 31.2% (Black Male), 28.0% (White Male), 17.9% (White Female) and 23.4% (Black Female). However, it is indicative of the growing trend in the school system, which is: more Black males and Black females are being either suspended or referred for suspension than white males and white females.

Teacher C's responses to the questionnaire indicate that she uses a re-education/Socratic teaching method, and the assertive discipline style to deal with student recalcitrance. Teacher C cited the most frequent examples of inappropriate behavior as (by number of observations): oppositional defiance, smoking, fighting, carrying weapons, sleeping, profanity and stealing.

The uniqueness of this school's mission required a different set of rules and standards not realized in the other schools; in particular, how to deal with "at-risk" students who had a proven record of violence and school drop-outs. Teacher C noted that she used a technique of behavior modification, and re-modeling behavior to "guide,

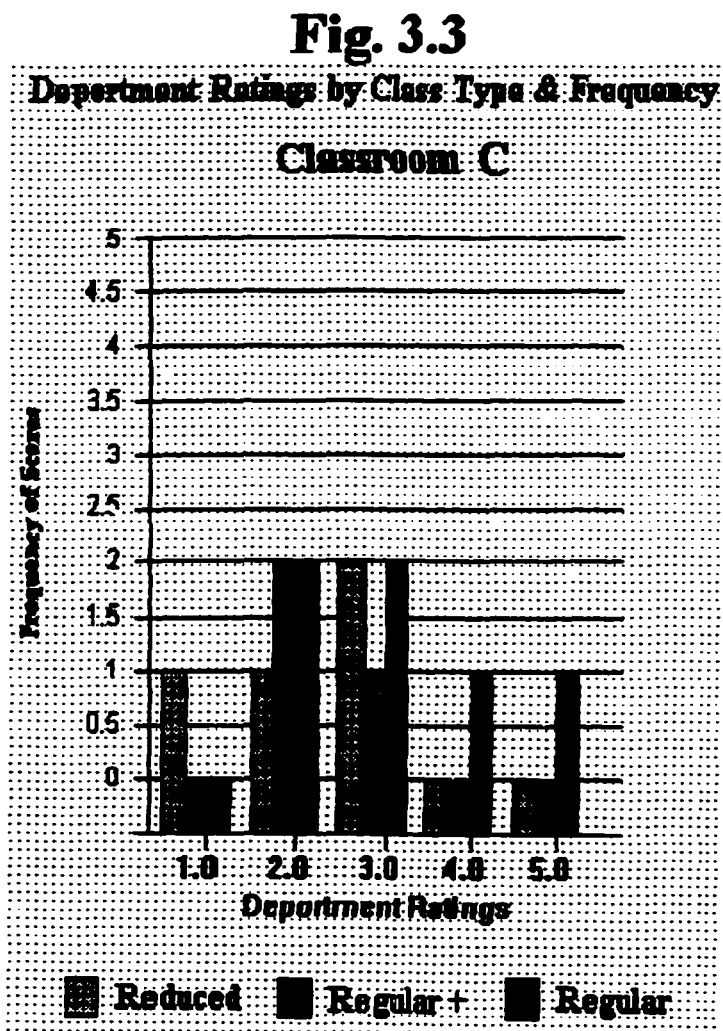
rather than "direct" her student's behavior. This follows the developmental constructivists concept of first making the student feel safe in his environment, then approaching the target behavior as a cooperative venture (Erickson, 1963). She also stated that she used a rewards system that awarded points, leading to more freedom of movement in and around the school campus. Reduction/relief from acquired points resulted in the loss of those privileges.

Teachers were encouraged to include parents, court appointed counselors and/or probation officers in all interventions. Teacher C maintained in-depth records of all intervention techniques used, outcomes to those techniques and suggestions as to follow-up interventions.

Although this classroom was quite different from other Knox County schools, the same rating system for classroom deportment was utilized. The following outcomes were noted from the quarterly deportment reports: the reduced class students' (5) scores ranged from 1.0 (1) to 4.0,(1), with an average score of 2.6, or slightly lower than a "good" rating, but above the "average" rating. Two students earned average ratings (3.0) and one student earned a "good" rating (2.0). Representing the regular with teacher's aide class type (3), the range of scores earned was a high of 2.0 (2), and a low of 3.0 (1). The average score for this group was 2.3, or slightly lower than a "good" rating, and well above the "average" rating of 3.0. The last group represented the

regular with no teacher's aide class. The range of scores for this group was a high of 2.0 (2), and a low of 5.0 (1); with an additional score of 3.0 (2) The average grade for this group was 3.2, or slightly lower than an "average" rating. The range of scores for the entire class was 1.0 (1), and 5.0 (1), with the mean score of 2.7, slightly higher than an "average" rating.

Figure 3.3 graphically demonstrates the range in department scores by class type, in classroom C.



VIGNETTE # 4

Classroom Profile: Grade 5

Class Type: Regular (STR=21/1)

School Type: Rural

Gender/Race Profile: White Males=12, White Females=9

Classroom D was one of three randomly selected to represent Rocky Hill elementary school in this study. Located approximately seven miles west of Metropolitan Knoxville, Rocky Hill is a designated rural school with a total enrollment of 704 Kindergarten through fifth grade students. Data from enrollment reports indicated that there was only one Black student attending this school during the course of this study.

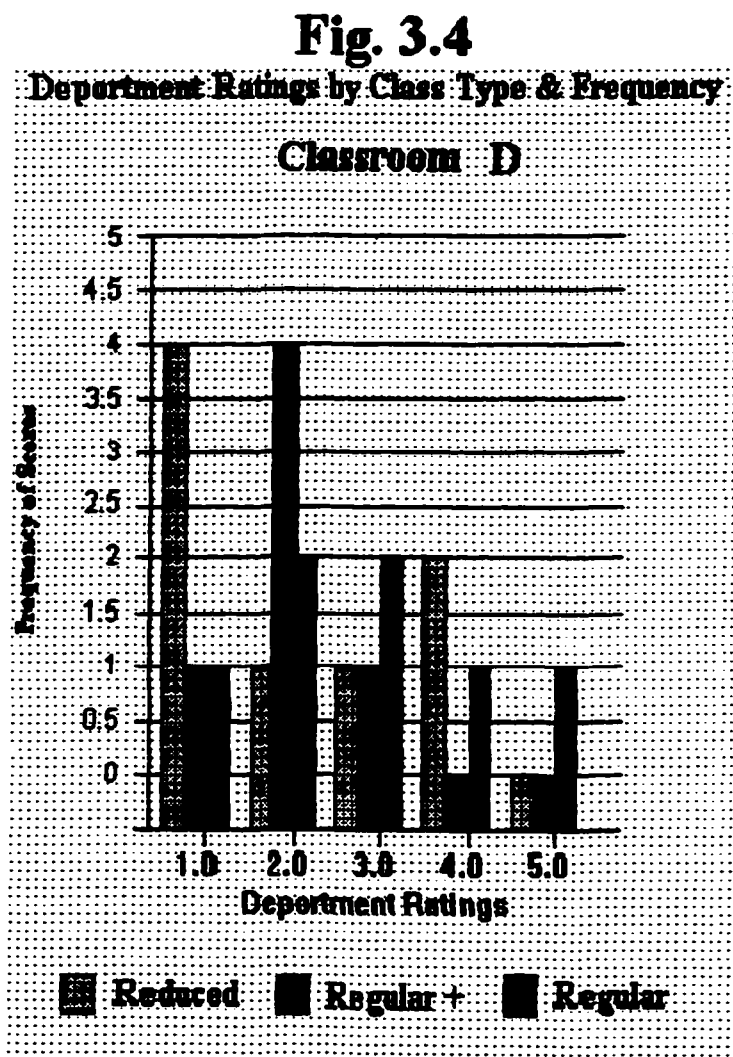
Teacher D indicated by her responses on the teacher questionnaire, that she used a re-education teaching style, and that she was an advocate of the cooperative learning methodology. The teaching style that teacher D alluded to closely follows Haim Ginott's "psychology of acceptance". Teacher D indicated that she considers the "complete" student, and uses teaching techniques that capitalize on all of his positive attributes. According to the department reports, her cooperative learning classroom environment has been very successful.

Teacher D reported that the most severe discipline problem in her class was minor mischief and "back-talking" to the teacher. The students most responsible for those

behaviors, (two episodes) were males and both were physically, and mentally handicapped. One was on a teacher-initiated behavior contract, and both had parents who did not take an active role in disciplining the child.

Classroom D students who represented the reduced STR had a range of deportment scores from a high of 1.0 (4) to a low of 4.0 (2). The remainder of the group scored ratings of 2.0 (1) and 3.0 (1), with an average score of 2.1, or slightly lower (.1) than a "very good" rating. Students representative of the regular class with teacher's aide recorded scores that ranged from a high of 1.0 (1), to a low of 3.0 (1), with an additional score of 2.0 (4), for an average deportment score of 2.1, or slightly lower (.1) than a "very good" rating. Students representing the regular class with no teacher's aide recorded scores that ranged from a high of 1.0 (1), to a low of 5.0 (1), with an average deportment score of 2.9, or slightly higher (.1) than an "average score." Scores of 2.0 (2), 3.0 (2) and 4.0 (1), completed the cell. The overall mean deportment score for this group was 2.3, or .3 points below a rating of "very good."

The mean scores by gender were as follows: Males=2.7, Females=1.9 Figure 3.4 graphically demonstrates the differences in department ratings for classroom D.



Because discipline practices may vary between cultures, settings and individuals, it was important for this study that (each) classroom environment be totally analyzed as to race, sex, discipline, teaching styles, and the degree of parent involvement in each class type. The use of the portraiture methodology afforded this researcher the qualitative information by which many important assumptions could/would be made.

Primary Analysis

The study's primary analysis consisted of a cross-sectional analysis of data from all students participating in the study at each of the three grade levels, third and two longitudinal analyses: grades five and seven. Students who were in the same project STAR class types in their early years (K-1-2-3) provided the data for the first analysis, and those who remained in the study through the fifth and seventh grades provided the data for the two longitudinal analyses.

Analysis of Variance (ANOVA) procedures were employed to address the major questions of the study as follows:
(1) **Class Type** (Small/Regular/Regular with Aide) this was assumed to be a fixed dimension; the most important question of the study: what are the mean differences among class types?

(2) Discipline Reports (Department and Suspension) were assumed to be standardized as all schools operated under the same criteria for assessing student behavior.

(3) Schools were treated as a random dimension, nested within locales, but crossed with class type (all three class types were present in each school).

(4) Students were treated as a random sample, nested within each class.

(5) School Type (Inner City/Urban/Suburban/Rural) was assumed to be a fixed dimension, crossed with class type.

A parallel analysis was conducted in all grades, with sex and race as an additional factor of classification. Since both males and females are present in each class and, potentially, both White and non-White students, these factors were treated as fixed effects, crossed with all other dimensions in the design. The design has unequal N's and some empty cells. Because the data closely followed that garnered via the STAR project, I chose to follow the same linear model approach for the nonorthogonal design, using the Analysis of the Variance Design (Yaeger, 1990). In each year (3rd, 5th and 7th grade), the data were analyzed from the measurement instruments (department reports/teacher assessments and SIMS reports). Students, (3rd and

5th grades) were placed in cells corresponding to the appropriate class type, sex, race and teacher department rating. These department ratings (independent variables), ranging from a 1 (highest rating), to a 5 (lowest rating), formed the numerical data from which the ANOVA statistic could be employed.

These five ratings were then arranged into three groups: ratings of #1 and #2 were grouped together into group #1 (outstanding), rating of #3 were placed into group #2 (average), and ratings of #4 and #5 were placed into group #3 (poor). Although a significant portion of this report was the teacher's narrative, only the numerical score was used in the statistic. The descriptions of actual student behavior were presented in the classroom vignettes, (Chapter #2).

Treatment 1 was the class type/STR to which each student was assigned from kindergarten through third grade. This placed the combined department scores into one of nine cells, thus the data were aggregated to the level of class means, and those means were used in the ANOVA statistic. Table 3.4 shows the configuration of those cells as: Treatment 1, class size, small, regular with teacher's aide and regular with no teacher's aide. Treatment 2 is department ratings: rating 1, above average ratings, 2, average ratings and 3, below average (poor) ratings.

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Table 3.4

**Configuration of Class Size/Department Scores
for the Combined Third Grade ANOVA Statistic**

	Department Rating			
	1	2	3	
S	126	47	32	t1. 205
R+	82	51	24	t2. 157
R	103	83	52	t3. 238
TI.	311	181	108	600

Degrees of freedom (df)= 8
F Ratio= 13.0

Source	df	Sum/Sqs	Mean/Sqs
Among	2	7048.8	3524.4
Within	6	2163.2	270.4
Total	8	9212.0	

=====

The null hypothesis (Ho) is: that the composite department scores will be the same for the population of students regardless of their class-type assignments. The alternative hypothesis (H1) is: that these two population averages are different.

An alpha level of $p = .05$ was appropriate for this statistic. The F-Value (13.0) exceeded the critical value

(5.14) corresponding to the alpha level of significance. Therefore, the null hypothesis was rejected at the .05 level of significance, and the alternative hypothesis was accepted.

Interpretation of Results

The results of the analysis of data show significant differences between department ratings throughout the cells, especially significant were the "poor" ratings in cells 1-3 and 3-3: small classes/ below average ratings, and regular classes/ below average ratings. The lowest "poor" ratings were found in the regular with teacher's aide classes. Department scores indicate: cell 1-1 (small class size/ above average ratings), had 126 (40.5%) students who received the highest rating, cell 1-2 (small class size/ average ratings), had 47 (26.4%) students who received above average ratings, and cell 1-3 (small class size/ poor ratings), had 32 (33.1%) who received poor ratings. Cell 2-1 (regular class size with a teacher's aide/ highest ratings), had 82 (26%) students who received the highest rating, cell 2-2 (regular with teacher's aide/ average ratings), had 51 (28%), students with average ratings, and cell 2-3 (regular class with teacher's aide/ poor ratings), had 24 students with poor ratings. Cell 3-1 (regular class size with no teacher's aide/ highest ratings), had 103 (30%), students, cell 3-2 (regular class size/ average ratings), had 83

(22%), students and cell 3-3 (regular class size/ poor ratings) had 52 (48%) students.

The raw data from the third grade department ratings suggest that students who are assigned to small classrooms in the kindergarten through third grade are likely to have 14% of the total N population who will receive department ratings of 1 and 2, (45% of all the #1 ratings) 8.0% of those will receive average department ratings, 3.0% will receive below average (bad) ratings, and 1.0% of those will receive very bad ratings. The data also suggest that students assigned to class types two and three account for 22% and 33% respectively of all the #1 ratings for the population. The average and below average ratings showed the most significance, with the regular class having 60% more average scores than the regular with teacher's aide, and 71% more average ratings than the reduced class.

SUMMARY

The data (in the form of department ratings), from the three conditions in the third grade classes, suggests a reasonable relationship between class size and discipline. The same data gathering instruments were used in the fifth grade classes to evaluate the same students' department. Table 3.5 graphically demonstrates the department ratings for the fifth grade. The differences in the total N between

the third and fifth grades is attributed to attrition rate deemed normal by the two participating school systems.

Table 3.5

**Configuration of Class Size/Department Scores
for the Combined Fifth Grade ANOVA Statistic**

	Department Rating			
	1	2	3	
S	85	22	24	T1. 131
R+	48	31	16	T2. 95
R	60	62	33	T3. 155
T1.	193	115	73	381

Degrees of Freedom (df)=8
F-Ratio= 5.68

Source	d.f.	Sum/Sqs	Mean/Sqs
Among	2	2471.9	1235.9
Within	8	1738.1	217.3
Total	6	4210.0	

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The same null hypothesis was applied to the fifth grade data. The statistic was calculated with the following results: The F-Value (5.68) exceeded the critical value (5.143) corresponding to the Alpha level of significance. Therefore, the null hypothesis was rejected at the .05 level of significance, and the alternate hypothesis was accepted.

Analysis of the Seventh Grade Suspension Reports

Annual (SIMS) suspension reports were analyzed to determine if class size in the original study would have any pervasive effects in the longitudinal study. Because the students were no longer assessed "ratings" for their deportment, it was necessary to make comparisons of the three conditions based on the episodes of out of school suspensions reported. Table 3.6 graphically describes the average suspensions by race, gender and original class condition: small, regular with teacher's aide and regular with no teacher's aide.

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Table 3.6

Average Number of Out of School Suspensions
for Seventh Grade Students, by Class Type,
Gender and Race. Knox County Schools.

Class Type	Sex/ Race	# of Susp.	Aver./student
Reduced	M/Wht	17	3
Regular+		8	3
Regular		13	2
Reduced	M/Blk	31	3
Regular+		49	4
Regular		53	3
Reduced	F/Wht	6	3
Regular+		0	0
Regular		2	2
Reduced	F/Blk	6	2
Regular+		14	3
Regular		27	3

Total N=225

Analysis of the data suggests that the regular with no teacher's aide class type received the majority (95) of the out of school suspensions during 1994-95 school year. This group was followed by the regular with teacher's Aide class with 84, and the reduced class with 60. Black male students had the highest number of incidences across the board with 133, followed by black females with 47, white males with 38 and white females with 8. Table 3.7 graphically explains the relationship between out-of-school suspensions and school localities (inner-city, rural, urban and suburban).

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Table 3.7

Number of Suspensions Based on School
Location: Inner City, Rural, Urban and Suburban

Sch/Cl.Type	Total # of Susp.	Aver/Student
In/city 1	27	2.3
2	29	4.1
3	60	2.9
Rural 1	1	1.0
2	1	1.0
3	5	1.7
Suburban 1	12	2.0
2	7	3.5
3	10	2.5
Urban 1	2	1.0
2	5	1.0
3	7	2.3

Data taken from annual SIMS reports-Knox County School
District, 1992-93 school year

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Analysis of School Location Data

Analysis of the number of school suspensions based on school location suggests that the Inner-City schools have the highest incidences of out of school suspensions. Of that group, the highest average number of suspensions is attributed to the regular with no teacher's aide class type (60), followed by the regular with teacher's aide class type (29), and the reduced class type (27). The second highest number of incidences was recorded by the Suburban school's reduced class type (12), followed by the regular class type (10) and regular with teacher's aide (7). The regular class in the Urban school had the next highest number of suspensions (7), followed by the regular with teacher's aide class (5) and the reduced class with 5. The Rural school recorded the least number of suspensions with 1 from the reduced class, 1 from the regular with teacher's aide and 5 from the regular class type.

Conclusion

Chapter three served to present the methodology and research data of the study. In all types of research, the investigator should seek answers in order to gather and interpret information. The level of success or failure to obtain that data depends on how well the researcher asks the right questions. The researcher must present an accurate

and meaningful example of his findings. By using both qualitative (portraiture) and quantitative methodology this researcher was able to present the total picture of the learning environment, not (just) a set of analytical data. The ANOVA statistic suggests that there is a correlation between class size and student department ratings in the third and fifth grade, thus supporting the thesis that class size is a factor in department and classroom discipline. It further indicates that there is a significant difference in the total number of incidences of poor classroom department between the three classes. The data for the longitudinal study suggests that the pervasive benefits associated with class size is not as pronounced in the seventh grade as it was in the third and fifth grades, indicative that the long-term benefits of small class size may plateau/ or be diminished past the three year mark. To further emphasize the possibility of a correlation between class size/STR and class discipline, a comparison was made of all the class types by race, gender and school location. With the combination of classroom portraitures and numerical data, this researcher was afforded information that would not have been available through a strictly quantitative approach.

CHAPTER IV

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS FOR FURTHER STUDY

Summary

The purposes of this study were to determine if the number of students in a classroom with one teacher, or one teacher with teacher's aide was a factor in the discipline and behavior of students in third grade, fifth grade and whether any pervasive benefits from a reduced classroom STR was significant enough to justify changing our school systems to a reduced STR scenario throughout the nation.

Educators, administrators and parents constantly seek methods and techniques that are effective in developing and improving students' abilities in reading, writing, mathematics, social studies and the sciences. The focus on the "three R's" and all the social and political ramifications attached to improving those areas has (traditionally) received the impetus of research into new methods and techniques.

The hypothesis that class size may have a direct influence on the level of achievement has been proven; notably by Project S.T.A.R. (1985-88). Standardized tests results indicate that there is a strong correlation between class size and individual achievement. The results of the S.T.A.R project, and subsequent longitudinal studies on class size

and achievement, have prompted many states to either reduce their classroom student-teacher ratios, or (at least) consider the possibility of reduced STR's in their schools.

Another interesting aspect of the reduced STR's is the possible positive effects that this environment may have on discipline and deportment in the classrooms. Although the STAR project did not address this issue, classroom discipline has, in recent years, become a growing problem in schools across America. Gangs, drugs, extortion, rape, intimidation and murder have become commonplace, and discipline in schools has become a hotbed of moral, political and social controversy.

Although there are as many opinions as to how to achieve a safe and sane school environment as there are proponents of that congress, the issue remains as to how to attain it. As far back as the 16th Century, school masters, teachers and administrators have used a form of legalized corporal punishment to keep students "in-line." Sanctioned by religious leaders, and accepted en masse, this form of discipline has been proven to have a short term effect, and of little use on students who have been exposed to physical discipline on an ad hoc and capricious basis in their homes.

Advocates of a guidance approach to discipline like Piaget, Montesorri, Dewey and most recently, Haim Ginott, see discipline as an agreement between all parties, respecting the dignity of each. By establishing such an agreement

each party understands exactly what is expected of him, and the rules to which each is expected to adhere. Physical punishment is never employed in this technique. In desperation, some schools have revised the use of corporal punishment as part of their "get back to basics" approach to discipline.

The present research was undertaken to compare adolescent students' classroom behavior in three different classroom environments over the course of four years, and the possible connection between class size and the incidences and severity of discipline problems. The use of classroom deportment, disciplinary and SIMS reports were used for the comparison. The independent variables that were studied included the sex, race, location of school (rural, inner-city, suburban or urban), type of infractions committed, the number of times infractions occurred, and the technique each teacher used to deal with the infractions.

The study was conducted in five public schools in Nashville, Tennessee, and four public schools in Knoxville, Tennessee; with a sample group of five 590 students. Subjects were randomly selected in their first year of school, and placed in one of three class situations: small, regular with teacher's aide, and regular with no teacher's aide, remaining in the assigned class size through the third grade. Class schedules, curriculum, and other mundane requirements were the same for all the class types.

Teachers used an agreed-upon set of classroom standards to rate student behavior and deportment.

At the end of the third grade each teacher used a standardized instrument to evaluate her student's deportment. The instrument allowed the teacher to rate each student numerically: 1 being the best, 2 being very good, 3 being average, 4 being bad, and 5 as being very bad. The subjects were then placed into regular classrooms through the seventh grade. At the end of the fifth grade and seventh grade the subject's disciplinary records (from SIMS reports), were analyzed to determine if there were pervasive benefits with regard to discipline and deportment attributable to class size in the first three years of school.

The following specific questions were addressed in the study:

Are students, who are placed in classrooms with no more than sixteen students and one teacher (STR), in the first through third year of school, less likely to have discipline and deportment problems in the fourth through seventh grades? Are these same students more likely to achieve higher scores on standardized tests in their third, fifth and seventh grades? Will the students in the regular classroom with teacher's aide, and regular with no teacher's aide have more incidences of disciplinary problems in the seventh grade than

those students in the reduced classroom STR (as evidenced on annual SIMS report data)?

Conclusions

Predicated on the results of the data analysis described in the preceding chapter, the following conclusions were drawn:

1. Students who are assigned to reduced classroom STR's in Kindergarten, and remain in that scenario through the third grade are likely to have better deportment and discipline in the fifth grade.
2. Students who are assigned to a classroom with an STR of 22-25 students and one teacher's aide, in Kindergarten and remain in that scenario through the third grade will be more inclined toward inappropriate behavior in the fifth grade than those students in the reduced STR classroom.
3. Students who are assigned to a classroom with 22-25 students and one teacher, from kindergarten through the third grade, will most likely have more discipline problems in the fifth grade than will the other two groups.
4. The pervasive benefits of small/reduced STR classrooms are better self discipline, less likelihood of dropping out of school and higher levels of achievement (Achilles, 1996).

5. The use of corporal punishment as a disciplinary tool is not effective and has long-range negative effects on grade school students.
6. The guidance approach to discipline is the most effective means by which to motivate a grade school student.
7. Minority students in the Inner-City schools are most likely to have the highest number of discipline problems regardless of the STR's.
8. Males are most likely to have the highest number of discipline problems and suspensions regardless of the STR's.
9. If the average STR in public schools was 1/15 the schools would show a much lower number of in-school, and out of school suspensions, higher achievement levels and lower drop-out rates in the fifth and seventh grades.
10. While small classes benefit all students, minority students benefit the most (Achilles, 1996).

Compelling evidence that smaller classes in the early grades garners pervasive benefits in subsequent grades, opens the possibility that other educational approaches could lead to further gains.

Postscript

This author realizes the complexity of issues attached to classroom achievement, discipline, student type and STR. This study utilized the data garnered from homogeneous classrooms; reduced class size may not have the same effects on exceptional or special education students.

Recommendations for Further Study

The findings of this study serve as the rationale for the following recommendations for further study:

1. A longitudinal study should be conducted immediately to determine if the pervasive benefits realized through the reduced STR classrooms remain through secondary school and beyond.
2. Replicate this study every three years to determine if teaching techniques affect the study outcomes.
3. Conduct a study to determine if reduced STR classrooms are effective in curbing gang-related activities in public schools.
4. Conduct a study on the feasibility of having reduced STR classrooms in North Carolina.
5. Conduct a similar study to determine if reduced STR classes would benefit special education/exceptional students.

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APPENDIX A

Student Information Management System (SIMS)

Project STAR / Lasting Benefits Study
Elementary Class-Size Research Project

Student Department Ratings

SNAME5	STID9	SSEX	SRACE	BIRTH1	BIRTH2	BIRTH3	SCHOOL
1	417119450	1	2	11	8	79	1900140
	<i>Best student - hard, competitive - good rapport with peers</i>						
1	293250767	2	1	4	16	80	1900140
	<i>best mentor during the year - well liked - individualistic</i>						
5	180016492	2	2	4	8	80	1900140
	<i>disruptive - family has many problems - trouble during work time</i>						
2	179005858	1	1	2	12	79	1900140
1	375875906	2	1	10	17	79	1900140
	<i>Very capable - No support from home</i>						
1	179001227	1	2	1	26	79	1900140
	<i>Excellent student - very good with peers - takes notes</i>						
2	725073798	1	1	12	13	78	1900140
1	180047519	1	2	9	21	80	1900140
	<i>Good problem - solving skills, dedicated - shy - like art</i>						
1	180035172	2	1	6	21	80	1900140
	<i>Outgoing and friendly - respectful to adults - good student</i>						
3	180051910	2	1	1	15	80	1900140
	<i>Seems like she just here, she is suspended - minor trouble</i>						
4	179046390	2	2	9	6	79	1900140
	<i>feeds into any peer situation - gets into everything</i>						
2	180005863	1	2	2	12	80	1900140
	<i>Good student - gets along well in peers - confident speaker</i>						
1	180034433	2	2	7	10	80	1900140
	<i>Had some problems but overall through them - hard worker</i>						
2	179070915	2	1	12	24	79	1900140
	<i>Easy-going - would be all over attention - natural leader</i>						
2	180016823	2	1	4	20	80	1900140
	<i>Average student - good athlete - needs motivation - happy</i>						

APPENDIX B

Student Department Ratings (numerical)
Rate students from 1 to 5

SNAME5	STID9	SSEX	SRACE	B1	B2	B3	SCHOOL
	784928838	2	2	7	20	79	4710267 3
	862767232	1	2	6	27	79	4710267 4
	664469048	1	2	7	18	80	4710267 2
	179060768	1	2	11	13	79	4710267 3
	170960911	1	2	9	7	79	4710267 1-kwms
	95264574	1	2	9	7	79	4710267 3
	179004789	2	2	10	10	79	4710267 3
	180036666	1	2	7	21	80	4710267 3
	558373638	2	2	7	29	80	4710267 2
	537140256	1	2	1	7	80	4710267 4
	198950909	1	2	11	17	79	4710267 5 fighting
	968900034	2	2	9	9	79	4710267 2
	649052875	1	2	12	4	79	4710267 2
	180000111	1	2	1	7	80	4710267 3
	680999155	2	2	2	12	80	4710267 3
	180001113	2	2	3	9	80	4710267 2
	180005336	2	2	1	22	80	4710267 1-kwms
	179795032	1	2	12	31	79	4710267 1-kwms

Appendix C

TEACHER OPINION SURVEY

5 SA	4 AGRE	3 NO	2 DISA	1 SD	N/R NR
1.					
10.4	54.3	8.7	15.4	11.2	0
2.					
32.5	56.1	6.5	4.9	0	0
3.					
9.6	30.1	20.7	15.8	23.8	0
4.					
5.6	30.5	10.3	35.5	18.1	0
5.					
35.2	50.6	7.8	4.3	2.1	0
6.					
32.2	56.4	9.2	2.1	0	0
7.					
21.6	38.4	20.2	9.4	8.3	2.1
8.					
9.6	23.7	11.8	35.3	19.6	0
9.					
18.3	22.5	19.4	22.4	12.2	5.2
10.					
18.0	42.7	19.5	9.3	4.4	6.1
11.					
19.6	54.3	8.2	9.1	6.6	2.2

Appendix D
TEACHER OPINION SURVEY FINDINGS

The following findings of the Teacher Opinion Survey results are significant:

- 1) A large majority of the teachers (74.7%) feel that there is effective and open communication between teachers and students (statement #1).
- 2) Most teachers (60.3%) disagree that corporal punishment is effective in curbing discipline problems (statement #3).
- 3) Many teachers (65.9%) disagree that parents are actively involved in the students' educational process at school (statement #4).
- 4) A significant number of teachers (85.8%) feel that behavior and attendance problems are handled fairly and effectively (statement #5).
- 5) A large majority of the teachers (88.7%) feel that reduced classroom ratios have positive effects on student discipline (statement #6).
- 6) Many teachers (66.7%) disagree that gang-related activities are non-existent in their school (statement #8).
- 7) Extracurricular activities are considered to be less than adequate (54.0%) by the teachers (statement #9) and:
- 8) Many teachers (73.9%) feel that the overall teaching climate is positive.