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Closing the Achievement Gap of the Urban Minority Student Migrating to the Suburban Public High School

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CLOSING THE ACHIEVEMENT GAP OF THE URBAN MINORITY STUDENT
MIGRATING TO THE SUBURBAN PUBLIC HIGH SCHOOL

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ABSTRACT

CLOSING THE ACHIEVEMENT GAP OF THE URBAN MINORITY STUDENT MIGRATING TO THE SUBURBAN PUBLIC HIGH SCHOOL

Many public school districts located near major cities are experiencing rapid demographic change. Unfortunately, many have not altered their practices to accommodate the academic and social needs of their new, diverse populations. Research literature indicates that common reactions to changing demographics in a suburban high school—administrative lack of direction and overwhelmed teachers—result in a large achievement gap between White and minority students. This study investigates the efficacy of practices that suburban districts can adopt to meet the academic and social needs of an influx of urban minority students at the high school level.

The purpose of this study is to describe and evaluate two school-based variables that can close or eliminate the achievement gap of minority students enrolled for 3 years or less in suburban high schools that are experiencing significant and rapid demographic change. The study examines relationships between students and teachers as well as instructional strategies of teachers in public suburban high schools on Long Island that are experiencing demographic change. This research considers the impact of these two variables on the Regents results of migrating minority students.

The study gathered data from 11 teachers and 240 White, African American, and Hispanic students from a suburban high school district on Long Island. The Flanders' Interaction Analysis Instrument (FIAI) was used in 22 classroom observations to categorize the nature of teachers' relationships with students and to determine teachers'

patterns of instruction. Statistical analysis of two minority populations who took the Math A Regents in June 2005 revealed there was no significant statistical difference between the scores of students who experienced positive, significant relationships with teachers and consistent exposure to student-directed lessons and the scores of students who did not experience positive, significant relationships with teachers and consistent exposure to teacher-directed lessons. Predictably, another analysis revealed a large achievement gap between White and minority students in the same district.

Despite the lack of statistically significant data, incremental differences in the academic achievement of the two populations on the Math A Regents indicate that suburban educators faced with increasing minority populations from urban centers should emphasize teacher–student relationships and student-directed instruction.

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CHAPTER I

Introduction

The Problem

In June 2001, the Brookings Center on Urban and Metropolitan Policy published a study by William H. Frey on suburban diversity across the United States. Using the Census 2000 data, Frey completed an analysis of race and ethnicity changes in 102 of the nation's largest metropolitan areas. The study's findings are outlined below.

1. Racial and ethnic diversity in suburban areas rose substantially in the last decade.
2. Racial and ethnic minorities make up more than a quarter (27%) of suburban populations, up from 19% in 1990.
3. "Melting pot metros" such as Los Angeles, Chicago, Washington, DC, Houston, and New York have the highest minority suburban populations.
4. Minorities were responsible for the bulk of suburban population gains in a majority of the metropolitan areas studied. (Frey, 2001, p. 1)

On January 8, 2002, President Bush signed into law the federal No Child Left Behind Act (NCLBA). The law mandates that states publish student achievement data disaggregated by race and ethnic groups. The combination of a significant minority population in the suburbs and the emergence of NCLBA is the impetus for recent and numerous studies on the minority achievement gaps in the suburbs. Ronald F. Ferguson (December, 2002) noted:

Until recently, racial and ethnic achievement disparities in elite suburban school districts were seldom discussed in public. Schools took pride, as they still do, in the numbers of graduates scoring high on college entrance exams and matriculating to prestigious universities.... Not surprisingly, the idea that schools

and teachers should be searching for ways to raise achievement—with special attention to African American, Hispanic, and low income students—was seldom a focus.

Recently, however, public discourse has begun changing. In 1999, 15 middle- and upper-middle-income districts in Ohio, Michigan, Wisconsin, Illinois, Massachusetts, New York, New Jersey, North Carolina, California, and Virginia, formed the Minority Student Achievement Network (MSAN). Together, they acknowledged the racial and ethnic disparities in their primary and secondary schools. (p. 3)

In 1997, John Ogbu was contacted by the Black community in Shaker Heights, Ohio to examine the achievement gap between Whites and Blacks in the upper-middle-class suburb outside of Cleveland, Ohio. In Ogbu's first meeting, the concern of the community was voiced by an African American woman:

In this community we have large numbers of Black families which are stable and in which both parents are well-to-do, educated, professionals, upholding all the virtues that are assumed to be the prerequisites of educational success. And yet the children of these families still seem to under-perform when compared with similar White families. What is going on? (Singham, 1997, as cited in Ogbu, 2003)

To research the problem of performance among Black students in the Shaker Heights schools, Ogbu (2003) launched an eight-month study that consisted of group and individual discussions, individual interviews, formal documents, and 110 classroom observations. The population in the study included Shaker Heights school personnel, students, and members of the Black community. Discussions were tape recorded or videotaped and then transcribed and coded.

In the Shaker Heights study, Ogbu discovered that many Black students had difficulties transitioning from the city to the suburb. One student stated,

Well I just tell them they have to apply themselves because like it's, it's a hard switch from like [where I came from]. Well, when I came here, I came in the 10th grade and I came from Cleveland Public School, so I had to adjust my work habits and stuff like that. It was hard at the beginning because I came from doing like maybe three nights a week homework, to doing four or five nights a week homework. And that was in all my subjects. (2003, p. 14)

Ogbu discovered that many of the Black students experiencing difficulties had a negative perception of their relationship with teachers. Another Black student stated: “OK, um, with me, I have talked to a lot of young Black males who are not ... achieving. And what I’ve mostly heard is, most of them blame it on their teachers. [They claim that] their teacher doesn’t like ’em, so they give ’em a bad grade” (Ogbu, 2003, p. 19). In his summary of the study’s findings, Ogbu concluded,

When Blacks evaluated their teachers and schools, they emphasized the importance of ‘caring’ for students and the inclusion of their experience and perspectives in the curriculum or pedagogy. Their emphasis is not so much on teachers’ expertise in the subject matter. Gay (2000, p. 47) explained that by *caring*, Blacks mean that they want their teachers and schools to be nourished, supportive, protective, and encouraging. Furthermore, Blacks hold teachers accountable for students’ performance. Gay (2000) added that if teachers and schools manifest this type of caring, they would create a consistently caring climate that would make Black students more willing to participate in learning tasks and demonstrate higher achievement. (2003, p. 256)

Another key influence that Ogbu (2003) studied at length was the quality of teacher instruction in Shaker Heights and its impact on Black academic achievement. In Shaker Heights, the high school courses were labeled college prep and honors. Ironically, the college prep courses were actually skills-level courses, while the honors courses were equivalent to college classes. Ogbu interviewed students who experienced both programs in the high school and recorded this response from a Black student:

I think there’s a lot, like in college prep classes, there are a lot, there’s a lot more busy work than in the honors classes. In honors classes, there’s more reading and stuff and they get down to the point. And [in] college prep, they like say, just like little work sheets and stuff that are irrelevant. And like projects, like in honors classes, they give you lots more reading; and [in] college prep, they give you these little projects and it’s not really relevant to anything. It’s just like busy work basically. (2003, p. 99)

Based on the case studies and classroom observations at the high school, Ogbu (2003) concluded, “In the honors classes teachers focused more on the subject matter and

demanded more work and intellectual involvement from students. In some college prep courses, the lesson did not always focus on the topic of the day. Students were not actively intellectually involved, and there was less demand for their participation in class” (2003, p. 119).

In the recommendation section of his Shaker Heights study, Ogbu (2003) addressed the instructional practices of teachers and the relationships between Black students and school personnel. Ogbu concluded that teachers should shift from individual, independent work to community learning. To support this recommendation, he pointed to the success of the Shaker Heights’ Lomond Elementary School, with its population of 54% Black students, which implemented cooperative learning in the areas of math and science. In the relationships between Black students and school personnel, Ogbu discovered a deep lack of trust between the Shaker Heights community and the school district, which needed an instant remedy. Ogbu recommended conferences between the community and the schools to discuss an “understanding of the factors contributing to the academic disengagement and what could be done about it. Shared understandings of the problems and possibilities will result in increased mutual trust and acceptance of and cooperation in implementing intervention programs at school...” (2003, p. 289).

The Valley Stream Central High School District in Nassau County on Long Island, consisting of North, South, and Central High Schools and Memorial Junior High School, shares the same concern of an achievement gap between Black/Hispanic students and White students. As demonstrated in Tables 1, 2, and 3, the Long Island district has been experiencing an influx of minority students from the city over the last few years:

Table 1

Student Population at Memorial Junior High School

Race/Ethnicity	2000–2001		2001–2002		2002–2003	
	No. of Students	% of Enroll.	No. of Students	% of Enroll.	No. of Students	% of Enroll.
American Indian, Alaskan, Asian, or Pacific Islander	126	12.3%	138	13.2%	162	15.2%
Black (Not Hispanic)	216	21.1%	227	21.8%	275	25.7%
Hispanic	162	15.8%	190	18.2%	220	20.6%
White (Not Hispanic)	519	50.7%	487	46.7%	411	38.5%

Note. From *The New York State School Report Card District Summary Reports*, by the New York State Education Department, 2003, retrieved August 17, 2004, from <http://www.emsc.nysed.gov/repord2003/links/d-28051.html>

Table 2

Student Population at Valley Stream South High School

Race/Ethnicity	2000–2001		2001–2002		2002–2003	
	No. of Students	% of Enroll.	No. of Students	% of Enroll.	No. of Students	% of Enroll.
American Indian, Alaskan, Asian, or Pacific Islander	105	9.0%	144	11.8%	155	11.9%
Black (Not Hispanic)	89	7.6%	101	8.2%	112	8.6%
Hispanic	126	10.8%	153	12.5%	176	13.6%
White (Not Hispanic)	848	72.6%	827	67.5%	855	65.9%

Note. From *The New York State School Report Card District Summary Reports*, by the New York State Education Department, 2003, retrieved August 17, 2004, from <http://www.emsc.nysed.gov/repord2003/links/d-28051.html>

Table 3

Student Population at Valley Stream North High School

Race/Ethnicity	2000–2001		2001–2002		2002–2003	
	No. of Students	% of Enroll.	No. of Students	% of Enroll.	No. of Students	% of Enroll.
American Indian, Alaskan, Asian, or Pacific Islander	66	6.8%	79	7.4%	68	6.3%
Black (Not Hispanic)	69	7.1%	89	8.3%	89	8.2%
Hispanic	96	9.9%	122	11.4%	130	11.9%
White (Not Hispanic)	736	76.1%	783	7.3%	801	73.6%

Note. From *The New York State School Report Card District Summary Reports*, by the New York State Education Department, 2003, retrieved August 17, 2004, from <http://www.emsc.nysed.gov/repord2003/links/d-28051.html>

Tables 1, 2, and 3 clearly indicate an increase in the minority population and an accompanying decrease in the White population for each high school. Memorial Junior High School, located near the Queens border, has experienced the most significant demographical change with a 4.6% increase in the Black population, a 4.8% increase in the Hispanic population, and a 12.2% decrease in the White population over a period of 3 years. Marc F. Bernstein, current superintendent of the Valley Stream Central High School District, noted,

Long Island is at a critical juncture, partially as a result of the national trend toward the urbanization of the inner suburbs. If today's educational and social challenges are not addressed successfully, our landscape will be one of gated communities, small enclaves of privilege protected by walls and private security. The response: We must eliminate the achievement gap that currently exists between students of different ethnicities. The urbanization of suburban education is upon us. (2004, p. A43)

Recognizing the rapidly changing demographics, Bernstein urgently argued that eliminating the minority achievement gap is imperative for avoiding failing high schools with minority populations across Long Island.

Valley Stream Central High School began to fail when Regents results significantly decreased across the disciplines in June 2002. The researcher/new principal of Central conducted item analyses of the Regents questions and searched for learning gaps, quickly concluding that the junior class in 2002, who were taking most of the Regents, consisted of a larger minority population than the previous junior year and scored lower than its White counterpart population on the state examinations. In September 2001, no Valley Stream teacher or administrator was aware of the implications of the changing population, and no district or school leader took any proactive steps to avert declining Regents scores.

Purpose of the Study

The purpose of this study is to describe and evaluate two school-based variables that can close or eliminate the achievement gaps of minority students enrolled in demographically changing suburban high schools. The study is compelling because many secondary schools across the country fit this profile, including Valley Stream's high schools, and they must take immediate action to close the minority achievement gap or risk educational failure.

Kathy Escamilla, Associate Professor of Education at the University of Colorado who works with schools in border states and urban centers experiencing rapidly shifting demographics, commented on her early experience with changing schools, "The first stage is shock—we don't know what we should be doing" (Escamilla, 2005). Indeed, the current research on the minority achievement gap proposes a remarkably long list of recommendations with various levels of efficacy designed to raise the level of minority achievement to that of White students. For example, researchers suggest increasing parent involvement, helping students of color feel more comfortable in school, including curriculum infused with people of color, increasing minority enrollment in advanced courses, hiring more experienced teachers, and offering frequent student assessments (Rothman, 2001/2002, pp. 3–11).

This study proposes that teacher–student relationships and classroom instructional practices are two variables suburban high schools should immediately address to effectively close the minority achievement gap. Educators faced with an increasing minority population can refer to this study and utilize the two tools, which will be analyzed in a quantitative manner to substantiate their statistical significance and priority.

This study is uniquely poised to address the minority achievement gap because unlike most of the research on the achievement gap—which focuses on established minority populations in suburban schools—this study focuses on suburban schools currently experiencing a rapid change in demographics.

This study will investigate the effects of positive, significant relationships between minority students and teachers on Regents results. The significant and positive teacher–student relationship is defined succinctly by Susan L. Gutierrez, Michigan Teacher of the Year 2002–2003:

Good teachers are everywhere today. To me, teaching is by far the most honorable of all professions. Each day, I work to capture my heart and wisdom in my teaching style. I respect and honor the students, knowing that they are often our greatest teachers. At the foundation of my teaching is a belief that each child is unique and that the primary purpose of education should be to meet students' individual needs. My role as teacher should be to foster the development of each student toward his or her fullest potential. ...this means addressing students as whole persons by fostering their physical, emotional, cognitive, moral, and social development. My lessons work to draw upon students' experiences, concerns, and interests. (2003, p. 1)

This study will also investigate the relationship between the classroom instructional practices of teachers and the Regents results of minority students. The instructional practices will be categorized as either teacher-centered instruction (i.e., lecture) or student-based instruction (e.g., cooperative learning or differentiated instruction). Given the rapidity of demographic changes experienced by these schools over the last 3 years (as measured by the New York State Report Card; see New York State Education Department, 2004), North and South High Schools and Memorial Junior High School of the Valley Stream Central High School District, Grades 9–11, will be used to compare the African American and Hispanic achievement data to the White

achievement data. The significance of the relationships of the variables to the achievement gaps will be measured quantitatively during the 2004–2005 school year.

Research Questions

The above research problem can be investigated by using two key research questions:

1. To what extent do positive teacher–student relationships and student-directed lessons affect the academic achievement and Regents results of Hispanic and African American students who migrated to demographically changing suburban high schools from a major city in the last 3 years?
2. To what extent do positive teacher–student relationships and student-directed lessons close the achievement gap between minority and White students in the area of Regents results in the classrooms of Hispanic and African American students who migrated to demographically changing suburban high schools from a major city in the last 3 years?

Limitations

The study is restricted to one high school district on Long Island with a sample population of approximately 150 students. The results of the study could be applied to other high school districts on Long Island because of the unique organizational structure of the high school district, which is located in three communities of Nassau County; there are no other pure high school districts (that is, districts composed of entirely of high schools) in the rest of New York State. Since the Long Island districts are similar in student composition, culture, and organizational structure, they tend to communicate with each other in the area of instructional improvement and exclude districts with elementary

and middle schools. As a result, the instructional strategies and teacher–student relationships described in this study are limited by region and do not encompass the common educational characteristics of the 15 participating states in the Minority Student Achievement Network (MSAN).

Another limitation of the study is that it altered the Flanders’ Interaction Analysis Instrument (FIAI). The FIAI uses 10 categories to describe teacher behavior and the interaction between students and teachers. Due to the Seton Hall Institutional Review Board’s constraints, the researcher will not record observations in the FIAI involving “pupil talk.” The elimination of the two categories subsumed under “pupil talk” could compromise the FIAI’s ability to capture the nature of the teacher–pupil relationship.

Definition of Terms

High School District – a district consisting of only junior and senior high schools.

Significant Teacher–Student Relationship – a relationship in which the teacher accepts and clarifies an attitude or the feeling tone of a pupil in a non-threatening manner while encouraging pupil action. The teacher asks thoughtful questions prompting extended answers from students. The teacher builds on ideas suggested by students who are free to develop opinions. The traits have a high rate of incidence within a single teaching period (Flanders, 1970).

Not a Significant Teacher–Student Relationship – a relationship in which the teacher lectures and expresses his or her own ideas while offering comments to students to justify his or her authority. The teacher solicits student answers through short questions that induce rapid responses by students. Student responses are limited

by the teacher. The traits have a high rate of incidence within a single teaching period (Flanders, 1970).

Level 1 Pattern of Instruction – a type of instruction concerned primarily with subject matter content and with learning activities that the teacher initiates, directs, and actively supervises. The dominant role of the teacher is characterized by high participation while the pupils are either passive or respond when directed to do so (Flanders, 1970).

Level 2 Pattern of Instruction – a type of instruction that invites more active pupil participation or tends to soften the use of teacher authority by making it more reasonable, understandable, and less arbitrary (Flanders, 1970).

Type 1 Teacher – a teacher who does not have significant relationships with students and consistently employs teacher-directed lessons as described in Flanders' Level 1 model of instruction.

Type 2 Teacher – a teacher who has significant relationships with students and consistently employs student-directed lessons as described in Flanders' Level 2 model of instruction.

Organization of the Study

Chapter 1 presents the central problems of the study, namely: How do suburban districts located near large cities adapt to the academic needs of an influx of minority students on the high school level coming from large cities, and how do the suburban districts avoid educational failure as measured by the Adequate Yearly Progress standards of the No Child Left Behind Act? This chapter warns that many school districts across the country located near metropolitan centers are experiencing changing

demographics and have not changed their practices to accommodate the needs of their diverse populations.

Chapter 2 offers a review of literature, focusing on two variables that may impact the academic success of Black and Hispanic students in a suburban high school on various federal, state, and local assessments. The literature explores the effects of instructional practices and teacher relationships with Black and Hispanic students and how these may impact student performance on assessments. In addition, the chapter will discuss certain research that claims that better teachers with state-of-the-art instructional practices cannot close the achievement gap without the intervention of other governmental agencies in the areas of health, housing, and the courts.

Chapter 3 contains a detailed description of the quantitative methodology that will be utilized in this study to determine if positive teacher–student relationships and instructional practices have a statistically significant impact on the performance of Black and Hispanic students in a rapidly changing Long Island suburb on the Math A Regents examination. Chapter 4 offers a statistical analysis of the data collected, and chapter 5 summarizes the study, draws conclusions from the data, and makes recommendations for policy, practice, and future research.

CHAPTER II

Literature Review

Introduction

This chapter narrows the enormous body of research on closing the minority achievement gap in America by dividing the literature into two categories. The first category pertains to the critical role of significant teacher–student relationships in closing the achievement gap by providing instruction that engages minority students and fosters academic achievement. The second category recognizes that schools are only one of many factors that influence the learning of minority students, and as such research cites political, social, and economic conditions that must be adjusted to make schools effective enough to close the achievement gap.

The Solitary Influence of the Local School

In general, the literature on the minority achievement gap commonly places the onus of closing the achievement gap on the local school. It emphasizes the responsibility of teachers, administrators, and policies in reducing the minority gap.

For example, in the article “Listen Up: The Role of Relationships in the Success of Students of Color,” Dr. Laura Cooper referred to Evanston Township High School’s celebration of Institute Day, which included a panel discussion of the experience of minority students in the classroom. According to Dr. Cooper’s notes (2002, p. 2), minority students on the panel commented on the teacher’s role, saying things such as the following:

“Teachers need to push me ... I wouldn’t talk in class if not pushed to do so.”

“The teacher recommended and pushed me to take an AP course.”

“Teachers encourage me to do my homework.”

Similarly, during his 2000 campaign for the presidency, Governor George W. Bush said he would not accept “the soft bigotry of low expectations.” Ron Ferguson’s study of middle-class Black students in Shaker Heights noted the “misguided love” of some teachers who were too sympathetic and allowed Black students to sleep in class and to not pay attention; Ferguson passionately argued for the firing of such teachers (Thernstrom & Thernstrom, 2003). Thernstrom and Thernstrom quoted additional sources to support their claim that low expectations of Black students in this country are a “widespread conviction”:

“Research clearly reveals that students rise to expectations that are set by their teachers and school,” D.C. school superintendent Paul L. Vance remarked in December in 2001. “Many black students miss the joy of learning because their teachers do not think them capable of it,” journalist Sam Fullwood wrote in September 2000. “The power of stereotypes may explain the persistent gap between black and white kids on standardized tests even when the black kids come from middle and upper socioeconomic classes,” *Newsweek* reporter Sharon Begley concluded in a November 2000 story. Likewise, a 2001 U.S. Department of Education report portrayed Black and Hispanic students as provided with “less encouragements by teachers who may harbor doubts about their abilities and thereby contribute to a self-fulfilling prophecy of underachievement.” (pp. 194–195)

In September of 2000, Ferguson began a study to address the racial and ethnic disparities in excellent suburban schools. Specifically, Ferguson wanted to understand how the school experiences of different racial groups might impact their engagement and academic achievement. The sample, from 95 schools across 15 districts, included 7,120 Blacks; 17,562 Whites; 2,491 Hispanics; 2,448 Asians; and 4,507 mixed race students in Grades 7–11. According to the surveys, 47% of the Black students identified teacher

encouragement as an important motivator, compared to 15% for teacher demands. In talking to Black and Hispanic students about the survey, Ferguson found that they had little to say about teacher demands but offered a wealth of comments on teacher encouragement:

One student says, "I find it encouraging when teachers tell me I can do it and when they don't make judgments about why I haven't done something that I was supposed to." Another says, "I find it encouraging when teachers give me full explanations to help me understand things, instead of yes or no answers." A third student says, "I find it encouraging when teachers stay after school to give extra help and don't seem like they're in a big hurry to go [home]." (Ferguson, November, 2002, p. 3)

Based on the evidence in the student surveys and some of the remarks made by minority students, Ferguson concluded,

Perhaps the most interesting finding here is the distinctive importance of teacher encouragement as a reported source of motivation for nonwhite students, especially African-American students, and the fact [that] this difference is truly a racial difference, mostly unrelated to measures of SES. The special importance of encouragement highlights the importance of strong teacher-student relationships in affecting achievement, especially for African-American and Hispanic students. It also highlights the importance of trying to understand racial and ethnic differences in how students experience the social environments of schools and classrooms. (November, 2002, p. 1)

According to Sedlak, Wheeler, Pullin, and Cusick (1986), as well as Steinberg, Brown, and Sanford (1996), by high school as many as 40%–60% of urban, suburban, and rural students are chronically disengaged from school; this colossal number does not even include dropouts, which would increase it further (as cited in Klem & Connel, 2004). In the triangulated study *Relationships Matter: Linking Teacher Support to Student Engagement and Achievement* by Adena M. Klem and James P Connel (2004), data on 2,430 secondary students consisting of 44% African American, 39% Euro-American, 16% Hispanic, and 1% other background students caused the researchers to conclude that "teacher support is vitally important to students' engagement in school as

reported by the students themselves and their teachers. Students who perceive their teachers as creating a caring, well structured learning environment in which expectations are high, clear, and fair are more likely to be engaged in school. In turn, high levels of engagement are associated with higher attendance and test scores.” (p. 34).

A significant difference in how Black and White students respond to teachers was highlighted in a study conducted by Clifton Casteel (1997; cited in Jencks & Phillips, 1998), who asked 928 White students and 761 Black students from nine public schools whom they most wanted to please with their class work. While 81% of Black females and 62% of Black males provided the answer “teachers,” only 28% of White females and 32% of White males gave the same answer. Given Casteel’s findings that African American students value the role of teacher, it is disheartening to note that teachers have higher expectations for students who speak standard English (Cecil, 1988).

The idea of personalized teaching is pervasive in the literature. Dale Worsley defines personalized teaching as “taking students’ individual characteristics and needs into account when planning and organizing the learning environment” (2004). Worsley noted that in diverse learning communities that adopt personalized teaching as a mission, it is common for teachers to call students the night before an important test to ensure a good night’s rest and to greet the students the next morning for encouragement.

North Central Regional Educational Laboratory’s research pointed to a number of steps administrators should take to support minority students. Administrators should ensure meaningful instruction and support by providing specialists and aides; they should establish early intervention programs; they should develop a study group of teachers to

explore programs that emphasize thinking skills; and they should help teachers appreciate the strengths, experiences, and cultures of their students (Ogle, 1997).

There is a whole body of literature dedicated to understanding the extent to which the relationship between teachers and minority students impacts the academic achievement of minority students. Steven Wolk (2003) cited having a culturally relevant curriculum as an important element in fostering healthy relationships between teachers and students from diverse cultures. Wolk directed teachers to learn about their students' lives and cultures and to adjust the curriculum accordingly. He stated,

While visiting a 5th grade classroom last year, I noticed a bookcase of children's novels. Thirty-five of the 37 titles were stories about White, middle-class children. Two books had African-American heroes. All of the students in this classroom were Latinos. The literature in classrooms was removed from the cultural lives of its students. An important element in fostering healthy relationships—especially in classrooms with diverse cultures and economic classes—is creating culturally relevant classrooms (Ladson-Billings, 1994)... To develop such a curriculum, we need to use resources that reflect students' cultures and that respect different learning styles. And we must value and use the knowledge that students bring into the classroom, believing that all students can learn and excel academically. (Wolk, p. 18)

Wolk concluded his article by advising teachers to remove the mask of “teacher” during the school day: “ A good way for a teacher to get students to treat him or her like a human being is to act like one. We all have successes and failures, dreams, and hopes, and we need to share these with others to cultivate relationships” (p. 18).

In El Cerrito, California, English teacher Joan Cone committed herself to closing the gap between minority and White students. Her research included staff and student interviews, as well as an analysis of students' personal writings. Cone stated, “What I found was that students of color in 10th and 11th grade were not taking advantage of the choices they had” (Sadowski, 2001, p. 7). Students that had become accustomed to the practice of tracking continued taking low level courses despite being given a choice. By

providing encouragement, eliminating tracking, and adding authors of color in the curriculum, Cone significantly increased the participation of African American and Hispanic students in advanced placement classes.

Jonathan C. Erwin (2003) suggested that teachers provide students with a sense of belonging and acceptance. Erwin's model, which he argued is suitable for "most classrooms in the world," advises teachers to learn each student's name as soon as possible, greet all their students at the classroom door, let students know them personally, engage students in team-building activities, and conduct class meetings regularly. Erwin claimed that these strategies would have a profound positive effect on student achievement.

In the North Harbor School District, an affluent suburban community, research demonstrated that while 67% of nonminority seniors were taking precalculus or calculus, only 33% of the district's minority seniors were enrolled in the same classes (Grossman, 2004). After an inquiry by the school's administration, "the interview data revealed that Black and Latino students in the district believed that they were not encouraged to excel and take honors classes" (Grossman, p. 71). The district decided to create a math enrichment program for 10th grade minority students to steer them toward higher level math classes. The administration of the high school selected a teacher to lead the enrichment program who was highly qualified in mathematics and skilled in establishing relationships with students: "in describing the rationale for selecting the teacher, the assistant principal in charge of the program said, 'She will reach out to the kids, she knows them, she will call them and encourage them to come'" (Grossman, pp. 71–72).

In another suburban district of South Hills, Grossman (2004) noted how teachers' labeling of Black and Latino students early on resulted in a swelling of minority students in lower level mathematics courses. The district's process for recommending students for accelerated math classes relied heavily on individual teachers' judgments. Upon investigation, the deputy superintendent of South Hills found that "black students suffered from a sense of racial isolation as well as feelings of inadequacy" (Grossman, p. 72). In response to the Black students' input, the district implemented a program that encouraged students to develop trusting relationships with teachers and made parents partners in the education process. According to Ferguson (as cited in Grossman), techniques that lead to nurturing teacher-student relationships will eliminate the achievement gap.

Current research demonstrates that minority students make significant academic gains in school communities with a high quality of relationships between stakeholders. Sebring and Bryk (2000) noted, "In schools that are improving, where trust and cooperative adult efforts are strong, students report that they feel safe, sense the teachers care about them, and experience greater academic challenge" (p. 440). Conversely, in Fort Wayne, educators concluded that African American students did not succeed; they found through a survey that "African American students had more negative relationships with teachers than white students. In response, the district instituted diversity training for the staff, changed the curriculum to include more content on contributions of people of color, and changed discipline policies" (Rothman, 2001/2002, p. 1).

Ogbu (1986) concluded that the educational disengagement of African American youth in the United States was due to racist, Euro-centric historical events, and argued

that African American students developed “oppositional identities” to combat the adoption of White values such as academic success. Ogbu hypothesized that, in order to avoid “acting White,” Black students would academically disengage, resulting in negative relationships with teachers (1986, p. 176). Vinay Harpalani (2001), however, in “What Does ‘Acting White’ Really Mean?”, argued against this hypothesis using extensive research: “Rather than change the ‘cultural meaning of schooling’ in these communities, we must change the context of schooling—to promote proactive Afro-centrism, and to provide all of the material and cultural resources necessary to properly educate Black youth in America” (1986, p. 5).

In the research literature concerned with the relationship between instructional practices and the minority student, the lecture and any form of direct teaching are frequently condemned. According to Ned A. Flanders (1970), direct learning concerns subject content “which the teacher initiates, directs, and actively supervises. The dominant role of the teacher is characterized by high participation while the pupils are either passive or respond when asked” (p. 280). Citing a 1965 federal government study of instruction in the Twin Cities area, Flanders commented:

Step inside the classroom and what do you hear? ... If someone is talking, the chances are it will be the teacher more than 70 percent of the time. Yes, the teacher talks more than all the students combined. He manages class activities by giving directions. He expresses ideas by lecturing. He stimulates student participation by asking questions. He clarifies student ideas by applying them to the solution of a problem. He praises and encourages students from time to time. On rare occasions he may clarify or diagnose the feelings and attitudes expressed by students or inferred from their behavior. He may also criticize the behavior of a student or class. (p. 1)

The research points to active student learning as a more effective means of teaching than lecture. Michael Lorenzen (2001) defined active learning as

... a method of educating students that allows them to participate in class. It takes them beyond the role of passive listener and note taker and allows the student to take some direction and initiative during the class. The role of the teacher is to lecture less and instead direct the students in directions that will allow students to discover the material as they work with other students to understand the curriculum. Active learning can encompass a variety of techniques that include small group discussion, role playing, hands-on projects, and teacher driven questioning. The goal is to bring students into the process of their own education. (p. 19)

Robert L. Morgan (2000) conducted a study involving college students in an introductory special education class to evaluate the impact of lecture versus cooperative learning on academic achievement. Morgan found that using lecture made it difficult to measure learning. Lecture was also limited by the fact that the speaker may be biased, that he or she may disturb some listeners because of his or her style, that it limited listener attention to approximately 15 minutes, and that it limited listener retention. Morgan found the benefits of cooperative learning to include increased retention, use of higher order thinking skills, and use of collaborative skills.

In a new program at Roosevelt High School in Yonkers, New York, teachers participating in the Academic Improvement Magnet (AIM) stressed the importance of engaging students during instruction. Oscar Letona, a math teacher in the AIM program, stated, "If you just stand in front of the class and lecture, you set yourself up for failure. I use motivation strategies like games, riddles, and logic to help students remember formulas" (DiMartino & Miles, 2004, p. 47). A social studies teacher in the same Yonkers program said of her students, who generally experienced inner city-type problems, "Most importantly, students know in this program that they are not going to see the same routine all day, they're not going to sit still for 45 minutes each class and listen to a teacher talk" (DiMartino & Miles, p. 47).

In “Diversity, Learning Style and Culture,” Pat Burke stated that “cooperative learning is successful not just because it is an alternative to lecture but because it allows some students the opportunity to process externally, to work with their peers, and to share responsibility for a task” (2001, p. 19). In a passage concerning learning styles and the teacher’s obligation to address the needs of individual students, the author insisted that “Every child of every culture, race, ethnicity, socioeconomic status, gender, age ability, and talent deserves to have an equal opportunity to be successful in school. Knowing each student’s culture is essential for providing successful learning opportunities” (p. 13). In a similar vein, Joshua Aronson, in his article “The Threat of Stereotype,” commented on educators who understand the dynamics of culture which affect student achievement:

Educators can minimize stereotype threat. When we do this, we see student scores, motivation, and enjoyment of the education process soar. For example, cooperative classroom structures in which students work independently typically produce immediate and dramatic gains in minority students’ grades, test scores, and engagement because such environments reduce competition, distrust, and stereotyping among students. (2004, p. 17)

In another study, Corbett and Wilson (2002) interviewed nearly 400 urban minority students in middle and high schools to determine their definitions of “good teaching.” Corbett and Wilson found that the students preferred teachers who provided a variety of classroom activities. “Students’ preferences included working in groups, listening to the teacher talk, reading from a book, doing worksheets, participating in whole-class discussions, and doing hands-on activities” (p. 20). Two students commented,

I prefer working in groups. You have more fun and you learn at the same time. You learn quickly. So you have fun and do your work. My favorite subject is math because she made our work into a game and I caught on real fast doing it that way. (p. 20)

The Limitations of Focusing on the Local School

The literature presented thus far shares the common theme of holding schools and their staff responsible for closing the achievement gap between minority and nonminority students. However, some researchers have contended that other areas of society must be addressed beyond the school to close the achievement gap. In “A Wider Lens on the Black-White Achievement Gap,” Richard Rothstein (2004b) argued that we will fail to close the achievement gap if the sole rescue mechanism is the local school. Rothstein stated,

Indeed, today’s policy makers and educators make many claims that higher standards, better teachers, more accountability, better discipline, or other effective practices can close the achievement gap.

The most prominent of these claims has been made by the Heritage Foundation (conservative) and the Education Trust (more liberal), by economists and statisticians who claim to have shown that better teachers do in fact close the gap, by prominent educators, and by social critics. Many (though not all) of the instructional practices promoted by these commentators are well designed, and these practices do succeed in delivering a better education to some lower-class children. But a careful examination of each claim that a particular school or practice has closed the race or social-class achievement gap shows that the claim is unfounded. (p. 107)

Rothstein pursued the notion that effective instructional practices and high quality teachers are not enough to close the achievement gap in the book *Class and Schools* (2004a). He considered the case of Jamie Escalante, who as a Los Angeles teacher inspired immigrant children to pass advance placement examinations in calculus. Rothstein emphasized that Escalante could not duplicate the same feat in Sacramento, where he was invited to set up a math program for immigrant children: “surely if there are 90th percentile teachers, Mr. Escalante was one, but he could not stimulate immigrant children in his new school to similarly excel. Whatever were the unusual circumstances of Mr. Escalante’s achievements in Los Angeles, they did not provide a formula, for Mr.

Escalante or others, to overcome demographic factors that predict low achievement for immigrant Latinos” (p. 80). Rothstein then discussed another teacher, Rafe Esquith, who was featured in the book *No Excuses* by Abigail Thernstrom and Stephen Thernstrom (2003). Esquith has been teaching fifth grade at the Hobart Elementary School in Central Los Angeles since 1985 and works countless hours, including vacations, to ensure academic achievement. Thernstrom and Thernstrom described how the immigrant children from low-income families in Esquith’s fifth-grade class produced Shakespearean plays, participated in concerts, mastered classical literature, and scored in the top percentile in math on a national level. The authors noted that Mr. Esquith is a famous, hard working teacher who received Disney’s Teacher of the Year Award and who was knighted by Queen Elizabeth. Rothstein (2004a) was certain that Esquith was a great teacher but explained,

The book’s use of Mr. Esquith shows how ideological and undisciplined this discussion has become. For although the Thernstroms’ concern is purportedly black students’ achievement, Mr. Esquith’s so called ‘jungle’ school had virtually no black students; enrollment at his school was almost entirely children of Korean and Central American immigrants. Although in low wage jobs here, many of the parents were well educated in their homelands.... It takes nothing from Mr. Esquith’s achievement to say that he is a questionable guide for closing the black-white achievement gap. (pp. 80–81)

Instead of focusing on heroic teachers, Rothstein asserted that a school’s improvement should be accompanied by effective health care services, stable housing for working families, and the pursuit of income equity in American society:

For example, some data presented in this book suggest that establishing an optometric clinic in a school to improve the vision of low-income children would probably have a bigger impact on their test scores than spending the same money on instructional improvement. We can’t be certain if this is the case, however, because there have been no experiments to test the relative benefits of these alternative strategies. (2004a, pp. 9–10)

In the summer of 1966, James Coleman, a prominent education researcher, completed a study involving nearly 600,000 school children and 60,000 teachers for the United States Office of Education. Coleman concluded that public schools didn't make a significant difference in pupil performance; in fact, Coleman credited the students' family backgrounds as the main reason for student success in school (Thernstrom & Thernstrom, 2003). Thirty-five years later, according to *The Washington Times*, "Many states and local districts are underreporting the number of schools failing to teach children to read and do mathematics at their grade level as required by the 2-year-old No Child Left Behind Act, fearful of ultimately losing control over poorly performing schools" (Archibald, 2004, p. 1). Such a statement supports Coleman's conclusion.

In an opinion piece, "Low Academic Achievement Dooms Us All," Rotan E. Lee addressed the student-teacher relationship, using strong language to criticize the elevation of relationship over academic achievement. The author stated,

Forget the unearned superlatives—descriptive of badly written compositions and fractured oratory—doled out by teachers whose penchant for self-esteem and good behavior outweighs the importance of knowledge and critical thinking—leading marginally literate Black children on a pied piper's tour to the land of mediocrity. (2004, p. 1)

Lee's tone signals outrage and rejects the call for a teacher's deep understanding of culture. Similarly, in *Angry Parents, Failing Schools*, Elaine McEwan (1998) provided examples of the disappointing reality of education today: "The discipline, academic knowledge, basic skills, ability to compete, and subject-matter competence that you think your children will acquire in school are vanishing faster than the pygmy owl and big horn sheep" (p. 53).

The Minority Student Achievement Network (MSAN) consistently cites the intrinsic motivation of minority students. In a 2002 study conducted by the MSAN that

included 40,000 high school students in 15 districts, African American and Hispanic students were found to have as much desire to succeed in school as White and Asian students. More specifically, the survey, explained in “Study: Minority Students Equally Driven,” showed that “African Americans and Hispanic students are actually more likely than White or Asian students to report that their friends think it is very important to study hard and get good grades” (Alson, 2002, p. 1). The survey results could be interpreted as contradicting the much publicized need for school intervention involving the motivation of minority students. In another study, Dr. Beverly Daniel Tatum interviewed 20 African American families in a coastal suburb of California and provided more information pertaining to actual educational achievement than the results of the massive survey conducted by the MSAN regarding minority attitudes toward education. Tatum (1987) wrote,

While growing up in a middle-class home meant life was easier in some ways there does not seem to be that much difference between any of the families in terms of the values stressed. In almost all, education was seen as very important by at least one, if not both, of the parents, though families varied in their ability to translate their desire for education into actual achievement of it. (p. 50)

The range of perspectives of the literature reviewed in this chapter covers the entire gamut of the achievement gap. In some cases, the research is tainted by the researcher’s passion towards this sensitive topic. Theresa Perry, Ed.D., noted the inherent sensitivity of the topic of the Black–White achievement gap: “It is a convenient way to talk about reality, but it also carries with it some problems in the larger discourse. We have to be careful that it does not become another way to relegate African-Americans to an inferior status” (Lewis, 2003, p. 3). Perry’s concern highlights the complexity of the minority achievement gap issue. Schools are responsible for solving a problem whose mere label invites controversy. To help defer some of the biases that such a heated topic

can elicit, an inferential, quantitative, statistical method of research was used in this study to investigate the issue of the minority achievement gap.

CHAPTER III

Research Methodology

Population

The first population studied in the statistical analysis of this research consists of African American and Hispanic high school students in a Math A Regents classes who have migrated from an urban area to the suburban Valley Stream Central High School District. To preserve the integrity of changing demographics, only students who moved to the suburbs after January of 2002 will be studied. The village of Valley Stream is near the Queens border, and, according to real estate brokers in the area, is a prime location for families moving from Queens and Brooklyn to the suburbs.

Research Procedure

Data were gathered from the population during fall of 2005. The data consist of the minority population's ($N = 150$ or above, as determined by a power analysis) final Regents grades. Each student was identified by a number, and each number was associated with the appropriate Regents grade. The researcher maintained absolute confidentiality regarding the identities of the students. The population was from North, South, and Memorial Junior/Senior High Schools of the Valley Stream Central High School District, and students who fit the criteria for this study were selected by simple random sampling.

In order to set up a valid statistical study, the researcher conducted classroom observations in the fall of 2005 to determine the teacher's value of relationships with

students, as well as to determine what type of instructional practices the teacher used in the classroom. It is important to note that the Regents results of the teachers observed in the fall of 2005 are being collected from the June 2005 administration due to timing constraints. There is no evidence to suggest that a teacher's value of relationships with students or the teacher's instructional practices would change significantly over the course of one summer; veteran teachers received no staff development over the summer, and second- and third-year teachers were exposed to a variety of topics in two days.

The researcher used the FIAI, developed by Flanders at the University of Minnesota between 1955 and 1960 (Flanders, 1970). Flanders assumed "that classroom interaction is a series of events and that teaching behavior consists of acts, or patterns of acts, embedded in the chain of classroom events" (p. 8). He asserted that a pattern consisting of a short chain of classroom events involving the interaction of pupils and teachers could be labeled and recorded by an observer. The model uses 10 categories to describe such observations (see Table 4).

As indicated, seven of the ten categories are utilized when the teacher is speaking, two are used when pupils are talking, and one is used to indicate silence or confusion. Flanders claimed that the three conditions of communication (teacher talk, pupil talk, and silence or confusion) "exhaust all the possibilities" and "are totally inclusive of all possible events" in a classroom observation (1970, p. 33).

Table 4

The 10 Categories of Flanders' Interaction Analysis Instrument

Type of talk	Description of category
Teacher talk (response)	<p>1. <i>Accepts feeling</i>. Accepts and clarifies an attitude or the feeling tone of a pupil in a non-threatening manner. Feelings may be positive or negative. Predicting and recalling feelings are included.</p> <p>2. <i>Praises or encourages</i>. Praises or encourages pupil action or behavior. Jokes that release tension, but not at the expense of another individual; nodding head, or saying "Um hmm" or "go on" are included.</p> <p>3. <i>Accepts or uses ideas of pupils</i>. Clarifying, building, or developing ideas suggested by a pupil. Teacher extensions of pupil ideas are included, but as the teacher brings more of his or her own ideas into play, shift to category 5.</p>
Teacher talk (questions)	<p>4. <i>Asks questions</i>. Asking a question about content or procedure, based on teacher ideas, with the intent that a pupil will answer.</p>
Teacher talk (initiation)	<p>5. <i>Lecturing</i>. Giving facts or opinions about content or procedures; expressing his or her own ideas, giving his or her own explanation, or citing an authority other than a pupil</p> <p>6. <i>Giving directions</i>. Directions, commands, or orders with which a pupil is expected to comply.</p> <p>7. <i>Criticizing or justifying authority</i>. Statements intended to change unacceptable pupil behavior to an acceptable pattern; bawling someone out; stating why the teacher is doing what he is doing; extreme self-reference.</p>
Pupil talk (response)	<p>8. <i>Pupil-talk-response</i>. Talk by pupils in response to teacher. Teacher initiates the contact or solicits pupil statement or structures the situation. Students' freedom to express their own ideas is limited.</p>
Pupil talk (initiation)	<p>9. <i>Pupil-talk-initiation</i>. Talk by pupils which they initiate. Expressing own ideas; initiating a new topic; freedom to develop opinions and a line of thought. Includes asking thoughtful questions and going beyond the existing structure.</p>
Silence	<p>10. <i>Silence or confusion</i>. Pauses, short periods of silence, and periods of confusion in which communication cannot be understood by the observer.</p>

Note. From *Analyzing Teaching Behavior* (p. 34), by N. Flanders, 1970, Philippines: Addison-Wesley.

The first purpose of using Flanders' 10-category system is to type the nature of the teacher–pupil relationship. For example, if in a classroom situation there is a higher incidence of teacher talk in categories 5 (lecturing), 6 (giving directions), and 7 (justifying authority), as opposed to categories 1 (accepts feeling), 2 (praises or encourages), and 3 (accepts ideas of pupils), then Flanders asserts that there will be a high incidence of category 8; according to Flanders, the difference of incidence between categories becomes statistically significant at or above 10% (1970, p. 36). Category 8 indicates that the teacher solicits student response and limits the freedom of student expression (pupil talk). The researcher would note a high incidence of categories 5, 6, 7, and 8 as “not a significant relationship” between teacher and student. A high incidence of categories 1, 2, 3, and 9 would be recorded as a “significant relationship” between teacher and student by the researcher.

The second purpose of using Flanders' 10-category system is to determine patterns of instruction. Flanders defined “Level 1” or “the lecture pattern” as “concerned with primarily subject matter content and with learning activities which the teacher initiates, directs, and actively supervises. The dominant role of the teacher is characterized by high participation while the pupils are either passive or respond when asked” (1970, p. 281). The lecture pattern is demonstrated by the high incidence of categories 4 (asks questions), 5 (lecturing), and 8 (pupil response), and in category 4, “the interchange consists of fairly short, narrow questions by the teacher and equally short and rapid answers by the pupils (p. 281). In what Flanders terms “Level 2,” categories 3 (accepts ideas of pupils), 4 (asks questions), and 9 (pupil initiation) “invite more active pupil participation or tend to soften the use of teacher authority by making it more

reasonable, understandable, and less arbitrary (p. 286). Flanders considered Level 2 to be an improvement in instruction over Level 1 because “while the main business of learning is concerned with subject matter—the knowledge, skills, and attitudes associated with it—how the teacher controls the learning activities and manages his own interaction establishes a common expectation among the pupils in spite of their individual differences” (p. 286). Flanders asserted that his Interaction Analysis categories used in classroom observations could “predict how much subject matter pupils learn” and “such evidence indicates that the teacher’s verbal communication pattern is associated with pupil learning and pupil attitudes toward learning” (p. 36). The 10-category FIAI is useless without his procedure of observation. He wrote,

An observer sits in the classroom in the best position to hear and see the participants. Almost as often as possible, he decides which category best represents the communication events just completed. He then writes down this category number while he simultaneously assesses the continuing communication.

Don’t worry about tempo too soon. Accuracy in tempo should be emphasized only during the latter stages of training, sometime after the first 4 hours. Recording procedures for live classroom observation, video, or sound recording, will require various printed forms, depending on what is to be done with the data. (1970, p. 38)

The form the researcher will use to record data from live classroom observations is illustrated in Table 5.

Table 5

Tallying Hash Marks by Categories: Sample Form

Category	Tally marks	Total tallies	%
<u>Teacher</u>			
<u>talk</u>	(to be recorded during observation)	3	0.8
1		6	2.5
2		12	5.0
3		22	9.2
4		130	54.2
5		16	6.7
6		4	1.6
7			
<u>Pupil talk</u>			
8		22	9.2
9		12	5.0
<u>Silence</u>			
10		14	5.8
	Total	240	100.0

Note. From *Analyzing Teaching Behavior* (p. 38), by N. Flanders, 1970, Philippines: Addison-Wesley.

The occurrence of tallies for each category for each teacher will be represented by a histogram, as illustrated in Figure 1.

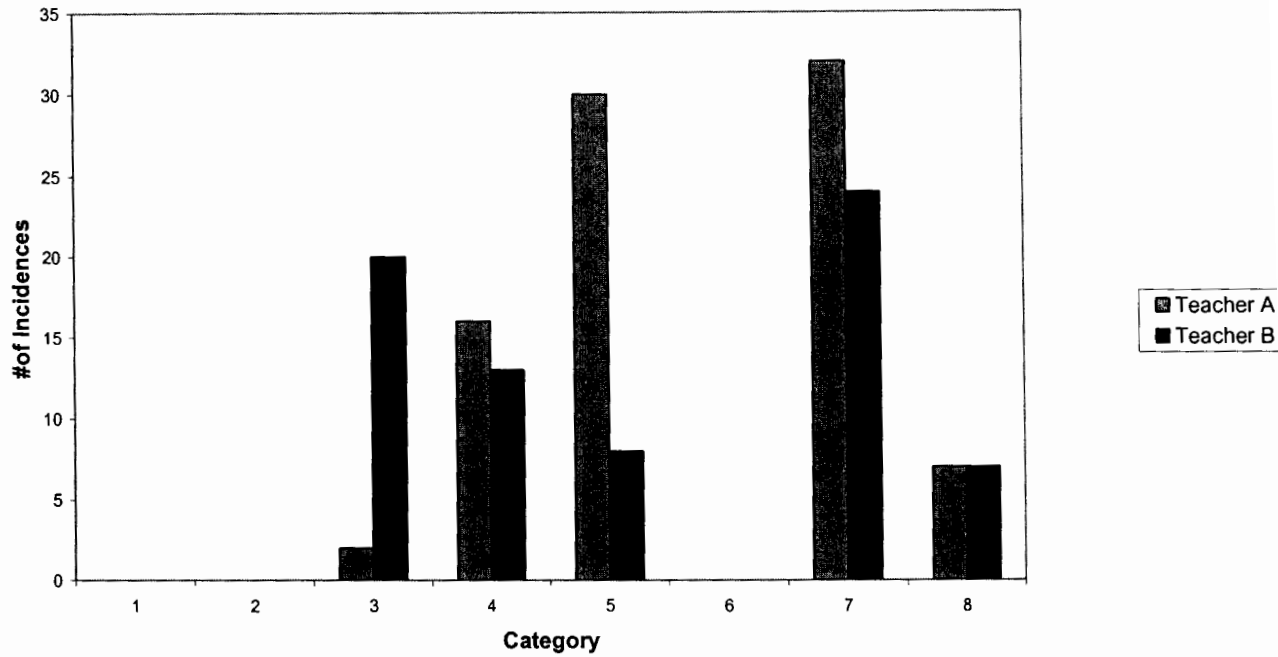


Figure 1. Sample histogram. The horizontal axis represents each of the FIAI categories, while the vertical axis illustrates the total hash marks recorded by the classroom observer. From *Analyzing Teaching Behavior* (p. 68), by N. Flanders, 1970, Philippines: Addison-Wesley.

The FIAI categories were applied in classroom observations of teachers at Valley Stream North, South, and Memorial Junior/Senior High Schools. All teachers of Math A from the three schools who taught the course during the 2004–2005 school year were asked to participate in the study. In addition to using the FIAI, the researcher looked for patterns in the observations and evaluations of participating teachers made by North, South, and Memorial school administrators that pertained to student–teacher relationships and methods of instruction.

The selected teachers were observed by the researcher on two occasions. The FIAI data collected from the classroom observations, and represented by histograms, was used to create a profile of teachers. Specifically, two types of teachers were identified. The Type 1 teacher does not have significant relationships with students and consistently employs teacher-directed lessons as described in Flanders' Level 1 model of instruction. The Type 2 teacher has significant relationships with students and consistently employs student-directed lessons as described in Flanders' Level 2 model of instruction. Each teacher in the study was identified as either Type 1 or Type 2. Each teacher's name and school remained confidential.

Data Analysis

The first statistical tool appropriate for use in this analysis is the t test for two independent samples since there are two samples and no evidence of pairing. One population sample consists of the Math A Regents results of migrating, minority suburban students enrolled in the classes of the Type 1 teacher. The other sample population consists of the Math A Regents results of migrating, minority students enrolled in the classes of the Type 2 teacher. If there is a statistically significant

difference ($p < .05$) between the sample means of the population, and if the Math A Regents mean of the Type 2 students is higher than the Math A Regents' mean of the Type 1 students, then the researcher can assume that the Type 2 teacher has an impact on the Math A Regents results of the migrating, suburban minority student.

Given the predominant literature on the learning styles of minority students, and given the importance of the teacher–student relationship to minority students, the researcher expected to find that there is significant academic achievement in the classes of teachers (Type 2) who engage students in student-directed lessons and who have significant relationships with students (alternative hypothesis). Since the purpose of this study is to determine if, in a demographically changing suburban high school district, the variables of teacher–student relationship and instructional practices truly close the achievement gap between African Americans/Hispanics and Whites, the researcher performed another independent t test because there are two samples and no evidence of pairing. One sample consists of the Valley Stream migrating minority students' Math A results of the Type 2 teacher, and the other sample consists of the Math A results of White students of the Valley Stream High School District selected by random sampling. The null hypothesis is: $H_0: \mu_1 - \mu_2 = 0$. If there is no significant difference in the sample mean of the Regents results of the White population and the sample mean of the Regents results of the African American/Hispanic population, then the researcher can assume that the variables of teacher–student relationships and instructional practices do have a significant effect on the academic achievement of the African American and Hispanic students and do close or eliminate the achievement gap between White and minority students.

CHAPTER IV

Analysis of Data

Grade Distribution by Teacher

In the fall of 2005 the researcher twice observed 11 teachers from North, South, and Memorial High Schools, for a total of 22 classroom observations. The observations were 42 minutes long and the Flanders' instrument was used to determine whether the teacher was Type 1 (see Appendix A) or Type 2 (see Appendix B). Out of the 11 teachers, 5 were classified as Type 1 teachers.

The first purpose of using Flanders' instrument was to determine the nature of the teacher-pupil relationship. As indicated in the histograms of the Type 1 teachers, there is a higher incidence of teacher talk in categories 5 (lecturing), 6 (giving directions), and 7 (justifying authority), as opposed to categories 1 (accepts feeling), 2 (praises or encourages), and 3 (accepts ideas of pupils). The researcher noted a high incidence of categories 5, 6, and 7 as "not a significant relationship" between teacher and student. A high incidence of categories 1 (accepts feeling), 2 (praises or encourages), and 3 (accepts or uses ideas of pupils) was noted by the researcher as a "significant relationship" between teacher and student as indicated in the histograms of six Type 2 teachers.

The second purpose of using the Flanders' instrument was to determine patterns of instruction. Flanders defined "Level 1" or "the lecture pattern" as "concerned with primarily subject matter content and with learning activities which the teacher initiates, directs, and actively supervises. The dominant role of the teacher is characterized by high

participation while the pupils are either passive or respond when asked” (Flanders, 1970, p. 281). The Level 1 or Type 1 teacher has a high incidence of category 4 (asks questions) and category 5 (lecturing). Flanders explained that category 4 for the Type 1 teacher consists of an interchange “of fairly short, narrow questions by the teacher and equally short and rapid answers by the pupils” (p. 281). As indicated on the Type 1 teacher histograms, the researcher did not record a high incidence of narrow questions in the classroom observations. Instead, the Type 1 teacher was recorded as having a low incidence of questioning and a high incidence of lecturing.

The versatility of Flanders’ 10-category instrument was noted in what he called the Level 2 or the Type 2 teacher, where the instructor has a high incidence of category 4 (asks questions). For the Type 2 teacher, questioning strategies invite active pupil participation in the subject matter. The researcher observed the opposite of “narrow questions by the teacher and equally short and rapid answers by the pupils” in the classrooms of the Type 2 teacher (Flanders, 1970, p. 281). The Type 2 teachers in this study frequently asked questions that inspired higher order thinking responses as defined by Bloom’s Taxonomy. Also, as indicated in the Type 2 teacher histograms, there was a high incidence of category 3 behaviors (accepts or uses ideas of pupils). Type 2 teachers in this study used the responses and ideas of students to make specific points about subject matter and to facilitate dialogue between students.

To ensure the reliability of the FIAI, the researcher completed a nine-hour training program that included memorizing the 10 categories and watching videotapes of classes for the purpose of recording teacher behaviors and the interactions between teachers and students. Scott’s reliability coefficient, which ranges from a high of 1.00 to a

low of 0.00, was used in training to analyze the researcher's skill; a coefficient of .85 or higher is acceptable for research when the 10-category system is used in classroom observations. Flanders insisted that the validity of the Interaction Analysis Instrument depends on the coding of the actual observation and on whether the elements of the original observation were recreated in their proper perspective during the decoding process.

During the course of this study, the researcher followed Flanders' strict procedures for encoding and decoding to assign the Type 1 or Type 2 labels to teachers. The FIAI takes the nuanced and subjective behavior of teachers and manages to scientifically define and categorize the behaviors with accuracy. The Type 1 and Type 2 teachers are clearly defined by Flanders' instrument without ambiguity. The visceral perspective of the researcher during classroom observations was aligned with the objectivity of Flanders' instrument in the typing of teachers. The researcher experienced a different "feel" in the classroom of the Type 2 teachers; relationships between teachers and students were palpable, and student engagement in the learning process was intense.

The analysis of the data in this study will answer the first research question: To what extent do positive teacher-student relationships and student-directed lessons affect the academic achievement in the area of Regents results of Hispanic and African American students who migrated to demographically changing suburban high schools from a major city over the last 3 years? The 11 teachers in this study were from a Long Island suburban school district and taught the Math A Regents course during the 2004-2005 school year. The White, African American, and Hispanic students were from the same Long Island district; they were enrolled in the Math A course and took the Math A

Regents in June 2005. The 160 minority students moved to the Long Island district from urban centers after January of 2002 (the Long Island school district in this study records a student's date of entry into the district, where the student is coming from, and the ethnicity of the student).

As indicated in the study, the Type 1 teacher does not have significant relationships with students and consistently employs teacher-directed lessons. The Math A Regents scores of 80 migrating, minority students in the classrooms of Type 1 teachers were provided without student names by the district's Director of Guidance. The Type 2 teacher in the study does have significant relationships with students and does consistently employ student-directed lessons. The Math A scores of 80 migrating, minority students in the classrooms of Type 2 teachers were also provided without student names by the district's Director of Guidance. The appropriate statistical tool for the analysis of the two populations mentioned above is the independent t test since there are two samples and no evidence of pairing. The data in Tables 6 and 7 were generated by the software SPSS (Statistical Package for the Social Sciences), which is a data management system developed by SPSS, Inc.

Table 6

Grade Distribution by Teacher Type: Group Statistics

Teacher type	<i>N</i>	Mean	Std. deviation	Std. error mean
Type 1	80	80.0375	8.13252	.90924
Type 2	80	82.2500	9.37881	1.04858

Table 7

Grade Distribution by Teacher Type: Independent Samples Test

Grade	Levene's test for equality of variances		<i>t</i> test for equality of means					95% confidential interval of the difference	
	F	Sig.	<i>t</i>	df	Sig. (2- tailed)	Mean difference	Std. error difference	Lower	Upper
Equal variances assumed	2.848	0.93	-1.594	158	.113	-2.2125	1.38789	4.95372	52872
Equal variances not assumed			-1.594	154.893	.113	-2.2125	1.38789	4.95414	.52914

Tables 5 and 6 cover two different samples that have some variable of interest in common, but there is no overlap of membership between the two groups. There are 160 ($N = 160$) migrating, minority students in the analysis, with 80 students in the classrooms of Type 1 teachers and 80 students in the classrooms of Type 2 teachers. The degree of freedom ($160 - 2 = df$) is 158. The mean of the Type 1 teacher is 80.03 compared to the mean of the Type 2 teacher of 82.25. The value of t is negative ($t = -1.594$), indicating that the mean of the Type 1 teacher is less than the mean of the Type 2 teacher and is not statistically significant, using a two tailed analysis, at $p = .113$. The mean difference between the populations is -2.21 and again, there is no statistical significance at $p = .113$. This means that 113 out of 1000 will occur by chance. Because $p > .05$, and even though the mean of the Type 2 teacher is higher than the Type 1 teacher, there is no evidence to suggest that the mean of the Type 2 teacher is significantly different than the mean of the Type 1 teacher. The null hypothesis, $H_0: \mu_1 - \mu_2 = 0$, must be accepted by the researcher, indicating that the variables of positive teacher–student relationships and student-directed instructional practices do not have a significant effect on the academic achievement of

African American and Hispanic students who migrated to the suburbs from the city within the last 3 years.

Grade Distribution by Race

Because there is no evidence to suggest that the mean of the Type 2 teacher is significantly different than the mean of the Type 1 teacher, the researcher can assume the answer to the second research question of this study: To what extent do positive teacher–student relationships and student-directed lessons by teachers in the classrooms of Hispanic and African American students, who migrated to demographically changing suburban high schools from a major city over the last 3 years, close the achievement gap between minority and White students in the area of Regents results? The assumed answer is that positive teacher–student relationships and student-directed lessons do not close the achievement gap between White and minority students. To maintain the statistical integrity of this study, another independent *t* test of two samples was conducted consisting of 80 migrating, minority students' Math A scores enrolled in the Type 2 teacher's classes and the Math A scores of 80 White students in the Valley Stream, Long Island High School District selected by random sampling (see Tables 7 and 8).

Table 8

Grade Distribution by Race: Group Statistics

Race	<i>N</i>	Mean	Std. deviation	Std. error mean
White	80	88.7250	9.41582	1.05272
Minority	80	82.2500	9.37881	1.04858

Table 9

Grade Distribution by Race: Independent Samples Test

Grade	Levene's test for equality of variances		<i>t</i> test for equality of means					95% confidential interval of the difference	
	F	Sig.	<i>t</i>	df	Sig. (2- tailed)	Mean difference	Std. error difference	Lower	Upper
Equal variances assumed	.036	.850	4.358	158	.000	6.4750	1.48585	3.54031	9.40969
Equal variances not assumed			4.358	157.998	.000	6.4750	1.48585	3.54031	9.40969

Tables 8 and 9 cover two different samples that have some variable of interest in common, but there is no overlap of membership between the two groups. Of the total number of Valley Stream High School students in the analysis ($N = 160$), 80 were migrating, minority students in the classrooms of Type 2 teachers and 80 were White. The degree of freedom ($160 - 2 = df$) is 158. The mean of the White students' scores on the Math A Regents is 88.72, compared to the mean of the minority students at 82.25. The value is positive ($t = 4.35$), indicating that the mean of the White students is greater than the mean of the minority students and statistically significant, using a two-tailed analysis at $p = .000$. The mean difference between the populations is 6.47, and again there is statistical significance at $p = .000$. This means that there is a 0% probability that these results would occur by chance. Because $p < .05$, the mean of White students is higher than that of the minority students, and there is evidence to suggest that the mean of the White student is significantly different than the mean of the minority student. The null hypothesis, $H_0: \mu_1 - \mu_2 = 0$, must be rejected by the researcher, which indicates that the variables of positive teacher-student relationships and student-directed instructional

practices do not have a significant effect on closing the achievement gap between White and minority students.

The purpose of this study was to evaluate two school-based variables, teacher–student relationships and classroom instructional practices, that can close or eliminate the achievement gap of migrating, minority students enrolled in demographically changing suburban high schools. The statistical evaluation of the two variables indicates that positive teacher–student relationships and student-directed instruction does not significantly close the achievement gap of migrating, minority students enrolled in suburban high schools that are experiencing significant, rapid demographic change, but such a broad conclusion does not warrant the deemphasizing of positive teacher–student relationships and student-directed instruction. In narrowing the statistical perspective, the researcher finds that the students of the Type 2 teacher scored 2.21 points higher on the Math A Regents than the students of the Type 1 teacher. While the gain of 2.21 points is not statistically significant, the incremental increase is compelling enough for suburban educators who face an influx of minority students from urban centers to utilize the two variables, which deserve more discussion in this study.

CHAPTER V

Summary, Conclusions, and Recommendations

Summary of Problem and Methodology

This study described and analyzed positive, significant relationships between teachers and students and how the classroom instructional strategies of teachers in demographically changing suburban high schools impact the Regents results of migrating minority students. The study investigated practices that suburban districts can adopt to meet the academic needs of an influx of minority students on the high school level coming from large cities. Many school districts located near metropolitan centers are experiencing changing demographics, as cited in the Brookings Center study on suburban diversity across the United States (Frey, 2001), and have not changed their practices to accommodate the academic and social needs of their new, diverse populations.

The first hypothesis of this study focused on the means of the Math A Regents results of migrating, minority suburban student populations who were exposed to the variables of the Type 1 and Type 2 teachers. The second hypothesis focused on the means of the Math A Regents results of migrating, minority suburban students enrolled in the classes of Type 2 teachers and the Math A Regents results of White students. The *t* test for two independent samples was an appropriate quantitative tool for this study since it compares the means of two different populations that have observed characteristics and determines whether an outcome is rare or not. The design of this study, based on the literature review of the minority achievement gap, anticipated a rare outcome on the Math

A Regents of the minority students enrolled in the classes of the Type 2 teacher. The anticipated rare outcome was critical to the study's purpose, but it did not occur. The researcher knew that a second t test would definitively determine the existence of an achievement gap between White and minority students in the suburban, Long Island district. The t test was performed and a mean difference of 6.47 was found on the Math A scores between the migrating, minority suburban student population with the Type 2 teacher and the White population. This proved to be statistically significant, indicating the existence of an achievement gap.

Summary of the Research and Findings

Given the predominant literature on the learning styles of minority students, the researcher expected to find a significant difference in the sample mean of the Math A Regents results of the Type 1 teacher and the sample mean of the Math A Regents results of the Type 2 teacher. The conviction of Allan Alson, superintendent of Evanson Township High School District and founder of the MSAN, expressed the importance of positive teacher–student relationships and the instructor's presentation of classroom material. Alson stated, "How well students understand what they're being taught ... depends a great deal on how they are being taught and what kinds of supports are in place to encourage learning" (2002, p. 1). Likewise, Ronald F. Ferguson, head of the MSAN, echoed Alson's conviction in a conclusion based on surveys from 95 schools across 15 districts, stating, "The special importance of encouragement highlights the importance of strong teacher–student relationships in affecting achievement, especially for African Americans and Hispanic students" (Ferguson, November, 2002a, p. 2).

The MSAN frequently conducts massive surveys, inundates the Internet with research and literature, and consistently cites the attributes of minority students. For example, in a 2002 study conducted by MSAN, African American and Hispanic students were found to have more desire to succeed in school than White or Asian students (Ferguson, November, 2002a). However, Ferguson did not explore beyond the survey to see if the genuine desire to do well in school of African American and Hispanic students translated into actual academic success.

In a recent article in *Time* magazine, Sonja Steptoe describes the academic profile of three high schools in Ann Arbor, Michigan where the median family income in the integrated city is \$71,293. She wrote,

The class of 2004 in the city's three main high schools racked up a combined average score of 1165 on the SAT, 139 points higher than the national average. Eighty-five percent of their seniors go on to four year colleges. And last year they had 44 National Merit finalists. But there are other numbers of which Fornero is less proud. The district's African-American students typically score 100 points lower than their white classmates on the SAT. The grade average for black kids is a C, a whole grade below the B for whites. And African-Americans are almost four times as likely to fail a class. (2004, p. 54)

In one of the three Ann Arbor high schools, Jasmine Daniel, a junior, commented on how two minority students enrolled in her accelerated science class transferred out because of pressure; she commented: "I can see why they switch out or won't try at all. It's no fun killing yourself like this" (Steptoe, p. 56). Ferguson should explore beyond the will of minority students to do well in school, as determined by a survey, and examine comments like those of Jasmine Daniel for a more balanced perspective. Instead, in the same *Time* article, Ferguson blames teachers "for misreading the signals from struggling Black students" (Steptoe, p. 55).

Two of Ferguson's major studies are cited in the literature review of this study. Based on Ferguson's findings for closing or eliminating the achievement gap, the researcher was nonplussed by this study's quantitative statistical results, which suggested that positive teacher–student relationships and student-directed lessons are not the best tools for eliminating the achievement gap in question. Instead, the results pointed to the ongoing existence of an achievement gap between minority and White students in a suburban school. In re-reading the cited literature in this study on the achievement gap, the researcher is more guarded than optimistic.

Other current, pertinent literature offers reasons why the significant teacher–student relationship and student-directed instructional practices cannot compensate for the differences in minority and White testing results. In *Class and Schools*, Richard Rothstein (2004a) debunks two teachers nationally recognized as outstanding instructors and great human beings. As mentioned previously, Rothstein noted that James Escalante, the Los Angeles teacher who inspired immigrant children to pass Advanced Placement examinations in calculus, could not reproduce his success for immigrant children in another Californian city. Rothstein also noted that Rafe Esquith, who was featured in the book *No Excuses*, is a “questionable guide” for closing the Black–White achievement gap since Esquith's highly successful school had an enrollment of almost entirely Korean and Central American immigrants who had well educated parents at home.

In “A Wider Lens on the Black-White Achievement Gap,” Rothstein (2004b) argued that the discussion on the achievement gap has become undisciplined and ideological. Rothstein noted that the Heritage Foundation, Education Trust, and educational policy makers are misleading the public by claiming that better teachers and

well designed instructional practices have closed the race achievement gap. Rothstein examined the specific claims of economists, statisticians, educators, and social critics and demonstrated how their claims about higher standards, better teachers, more accountability, and better discipline are unfounded. Rothstein's arguments are supported by currently released data pertaining to national testing.

The Federal Department of Education administered the National Assessment of Educational Progress (NAEP) to 660,000 students in the 50 states, the District of Columbia, and on military bases around the world from January to March 2005. President Bush's signature No Child Left Behind law requires that all students meet full proficiency by 2014. Gage Kingsbury, director of research at the Oregon-based nonprofit group Northwest Educational Evaluation (which carries out testing in 1,500 school districts), noted, "fourth grade Black and White students would probably be performing at equal proficiency levels by 2034. Other results, like the eighth grade reading, suggest it will take 200 years or more for the gap to close" (Dillion, 2005, p. A24).

Ferguson and many other prominent professors insist that interest and support from teachers matters more to minorities. The results of this study demonstrated that the interest and support from teachers did make a difference in the Math A results of minority students, but not a significant difference. Minority students in the classrooms of the Type 2 teacher scored, on average, 2.2 points higher than the minority students in the classroom of the Type 1 teacher, but the higher scores were not statistically significant and did not indicate a closing of the achievement gap between races. Despite the prosperity of the Ann Arbor Michigan high schools discussed in this chapter, many middle-class African American students had significantly lower grade averages than

White students. Ferguson believed that many teachers withdrew their interest and support of “floundering Black students” and lowered their expectations, and in response Black students resigned themselves to a low position on the academic totem pole (Steptoe, 2004, p. 55). To remedy the problem, Ferguson recommended, based on his research, that the Ann Arbor school district faculty expose incoming ninth graders, especially minority students, to lavish attention. In light of such a recommendation, it is helpful to remember Rotan E. Lee’s strong language criticizing the elevation of the teacher–student relationship over academic achievement: “Forget the unearned superlatives . . . doled out by teachers whose penchant for self-esteem and good behavior outweighs the importance of knowledge and critical thinking—leading marginally literate Black children on a pied piper’s tour to the land of mediocrity” (2004, p. 1).

The researcher’s reference to James Coleman’s 1966 study for the United States Office of Education might be considered an anathema by current researchers because of the study’s simplistic conclusion and historical context. As mentioned previously, after completing a study involving 600,00 school children and 60,000 teachers, Coleman concluded that the student’s family influence was a more significant contributor to his or her performance than the public school. Coleman would probably argue that a parent’s support and relationship with the student supersedes the teacher–student relationship in public school. This researcher’s 24 years of anecdotal experience supports such a conclusion.

In a conversation initiated by a teacher participant in this study, the teacher expressed enormous frustration over the lack of control over the home lives of her students. The teacher, who had a small class of 15 students, is known as professional,

extremely devoted to her students, conscientious, and instructionally sound. Eight of the students were experiencing significant emotional problems as a result of situations at home. The teacher attained the appropriate guidance through the school, but the resources were not sufficient to handle the problems; outside counseling was recommended for each of the eight students. The teacher claimed that outside counseling did not occur, and as result, the attendance of the eight students was sporadic. The students were missing instruction and assignments, and when present, did not engage in the classroom activities. The teacher's conversations with parents were fruitless. The eight students implicitly trusted the teacher and begged for her advice and solace, which emotionally drained the teacher and interfered with her instruction of others. In addition to the emotional turmoil, the teacher was keenly aware that she was accountable for the Regents results of these students and, given the district's new intimidating campaign of teacher accountability, she feared poor results which would produce financial penalties on her income per her contract.

The results of Rothstein (2004a, 2004b), Coleman (1966), and this study indicate that treating the school as a solo rescue apparatus cannot close the achievement gap between races. Rothstein noted, "Scholarly efforts over four decades have consistently confirmed Coleman's core finding; no analyst has been able to attribute less than two-thirds of the variation in achievement among schools to the family characteristics of their students" (2004a, p. 14).

Policy Implications

The year of 2004 marked the 50th anniversary of the U.S. Supreme Court's landmark *Brown v. Board of Education* school desegregation decision. Despite a half-

century of efforts to improve educational opportunities for African American and Hispanic students, a large achievement gap still persists. As indicated in this study, by 11th grade, African American and Hispanic students do not perform as well as their White counterparts on a standardized examination. In addition, high school completion rates remain markedly lower for students of color (Orfield, Loser, Wald, & Swanson, 2004). While the overall numbers of the achievement gap can be daunting, there is incremental evidence as opposed to significant impact in this study, which indicates that the relationship between teacher and student and the way that minority students are taught can improve student achievement. Also, research cited in this study found that the family has a significant impact on student achievement. Keeping in mind the substantial research that has attempted to mitigate or eliminate the achievement gap, what policies can schools implement to close the achievement disparities between minority and White students in the next 50 years?

As Tomlinson and Cross stated, “For fear of blaming the victims for their failures to learn, educators have been loath to endorse reform strategies that require hard work from students as a condition for learning, especially effort outside the classroom” (1991, p. 70). All school districts should have a homework policy stipulating the purpose of homework, its frequency, and its amount. Homework communicates expectations to the student outside of the classroom, and most importantly, can act as a link to parental involvement. Since the research cited in this study provides evidence beyond dispute that parental involvement improves student achievement, then homework, and its enforced policy, should act as the impetus for the family to provide the primary educational environment. Once the parents are involved in homework, a bridge to school can be

established since homework will spark conversation between parent and child regarding teachers and instruction. The policy of homework has the potential to unite parents, teachers, and schools in strengthening the education of minority children.

The financial commitment of states to provide mandatory small class sizes in their schools is essential to closing the achievement gap. Charles M. Achilles (1999), a researcher in the Star study, stated,

Small classes offer students many benefits, especially to disadvantaged and minority students in early grades. The advantages are far more than just test scores. Better identification of students who may need special help, increased student participation and engagement, decreased behavior problems, and reduced retention in grade are all part of benefits to students. These same outcomes may also provide social and economic benefits that will help repay the initial investments in small classes for the benefits of young children. Let's put kids first, finally, by getting class size correct. (p. 103)

An important conclusion of the Star study noted that African American students benefited more in terms of test scores than White students. Richard Rothstein commented on the updated research on students in the STAR study:

Researchers are now able to compare students' outcomes as they moved through their school careers. Children who were in small class sizes in kindergarten through third grade had fewer disciplinary problems after returned to regular classes in the fourth grade, compared to their fourth grade classmates who had not been in small classes in the previous years. When they got to high school, children who had been in small class sizes in kindergarten through third grade were more likely to take college entrance exams than comparable students who had not been in small classes but whose school experiences were similar after the third grade. Small classes had a bigger impact on college entrance exams-taking by black than by white students. Small classes cut the black-white college admission test-taking gap in half. (2004a, p.126)

An ineffective teacher in a small class would still be an ineffective teacher. Small classes, by their nature, do not guarantee academic success. Policy makers must commit to paying effective and fully certified teachers the equivalent of other entry-level professions and maintaining teacher retention through contractual income steps. In the

Valley Stream Central High School District, teachers with 20 years of experience and a master's degree are making \$100,000 after 20 years of service, and entry-level positions begin at \$47,000. The entry level and potential of the Valley Stream School District salaries are enough to attract and maintain highly qualified teachers. With the salary structure in place, administrators must be able to accurately identify the most effective teachers for tenure. Rothstein (2004a) suggested that effective teachers must be "a full standard deviation above the mean in effectiveness. Teaching is both art and science. Pedagogical skills and content knowledge can be taught, but beyond these, the greatest teaching requires an instinctive affinity for the role. The greater the teacher, the more art and less science is involved" (p. 69).

In *Closing the Achievement Gap: A Vision for Changing Beliefs and Practices* (2003), Bonnie Benard introduced the concept of "turnaround teachers": "Turnaround teachers not only establish caring relationships between themselves, they consciously promote these between students and between family/community members" (p. 26). Benard also developed a checklist of 27 traits that define the turnaround teacher. She promotes traits such as relating to a caring environment to meet developmental needs for students accompanied by extra individualized help. The turnaround teachers are intelligent, creative people who work hard to professionalize teaching and deserve to make \$100,000 per year.

At least 15 researchers cited in this study offer qualitative and quantitative evidence on the academic achievement of minority students who have significant, effective relationships with teachers. The most compelling statement made in this study on the teacher–student relationship that supports the policy of hiring and retaining the

best teachers was made by Steven Wolk (2003): “A good way for a teacher to get students to treat him or her like a human being is to act like one. We all have successes and failures, dreams, and hopes, and we need to share these with others to cultivate relationships” (p. 18).

A controversial policy that might be considered is sending teachers into the homes of “at risk” students to make contact with parents for the purpose of sharing information about the student and the school. In the Valley Stream Central High School District, the researcher belongs to the Parent Teacher Student Association (PTSA) with a potential membership of over 4000 parents. An average of 40 parents attend the monthly PTSA meeting, and usually 1% of the 40 members are minority parents. Given Coleman’s study on the impact of parents on student achievement, teachers must find their way into homes, literally and figuratively, to train parents in the areas of homework, curriculum, school policies, and testing. Rothstein (2004a) cited a 1962 study by the Ypsilanti, Michigan schools, which served mostly disadvantaged African American children, where teachers went into the homes of preschoolers to assist parents and children in the educational process. “At age 27, those who attended preschool had higher earnings, on average, than those in the no-program group”(Rothstein, 2004a, p. 124). In order to expedite the closing of the achievement gap between White and minority students—which, as mentioned, Mr. Gage Kingsbury (Director of the Northwest Educational Evaluation Center) predicts will take 200 years to close on the eighth-grade level—iconoclastic policies must be considered by all stake holders in the realm of American education.

Practice Implications

During the last 20 years, an abundance of research has focused on classroom instruction. Despite the research, many students across the nation still sit in rows, textbooks act as the curriculum rather than as a resource, and teachers use lecture as a predominant method of reaching their instructional objectives. Research in this study demonstrated that high quality student learning occurs through active learning. Active learning as a method of education, which allows students to participate in class through small group discussion, role playing, hands-on projects, cooperative learning, and teacher-driven questioning (Lorenzen, 2001), was observed in the classrooms of Type 2 teachers in this study. This method generated more student engagement than the instructional strategies of the Type 1 teacher. While the research on active learning is impressive, it serves no purpose unless practiced in the classroom. School administrators must insist on the practice of active learning and can begin with staff development.

However, effective staff development requires follow up beyond the initial presentation:

Effective staff development provides the follow-up necessary to ensure improvement. Whether or not educators believe one-shot workshops improve teaching, the truth is that many staff developers plan workshops with little or no follow up. Carefully planned follow up is required to support the successful implementation of a particular improvement in teaching content or in teaching a strategy. In fact, successful staff development ensures that teachers adopt new content or practices. Whether they incorporate new learning into their practice depends on a number of factors, including 1) how useful they see the new practice or content; 2) the costs involved in the new practice or content, including time and resources; and 3) if the new learning is aligned with what they are already teaching and doing.

Many experts believe as much as 50% of these resources set aside for staff development plans should be targeted for follow up strategies. The challenge is to have the kind of staff development thinking that includes a continuum of communication, troubleshooting, and adjustments. Only then will we come closer to having the seamless cycle of learning and achievements for the adults and children. (Murphy, 2000)

Effective staff development must be practiced in schools with the appropriate content and strategies to close the achievement gap between minorities and Whites.

High schools in every state must incorporate active learning practices in the relevant context. Curriculum must be connected to the world and aligned with the job market, college expectations, technology, and students' interests. French's research (2003) indicates that we learn 10% of what we read, 20% of what we hear, 30% of what we see, 50% of what we both see and hear, 70% of what is discussed with others, 80% of what we experience, and 95% of what we apply or teach to someone else. French suggested that educators concentrate on the 70–90% learning zone. He cited an example of a school in Boston located in a predominantly Black and Hispanic neighborhood:

They were studying illnesses in science, and discovered that the neighborhood had among the highest asthma rates in the state. Students began researching the potential causes. A group began tallying the numbers of diesel trucks and busses that came through their square each hour, and upon comparing it with figures at the Department of Transportation, found that their neighborhood, had the highest truck and bus traffic of any place in the city. They then presented findings to two state agencies, complete with recommendations for solving it. (French, 2003)

This Boston high school provided a bridge between high school and potential post-high school experiences. Such a bridge can also be built between a high school and a local university. Currently, some seniors in the Valley Stream Central High School District are studying in a new 2-year program that combines a high school equivalency diploma and an associate's degree from Nassau Community College. Additionally, the Valley Stream District is developing courses to prepare juniors and seniors for the placement examination of Nassau, which one third of the district's students attend. The ultimate goal is to establish an early college high school.

Ogbu (2003) confirmed that African Americans consider education important, but often experience difficulty in connecting working hard in school to the job market. Ogbu

claimed that African Americans' social and economic rewards are not proportional to their educational efforts, as opposed to Whites, who believe that hard work will increase opportunities for success. Ogbu stated, "Under these circumstances, minority children do not see their parents as role models for professional and other jobs or positions as being based on school success or school credentials; rather they see them as role models in the collective struggle against the system" (2003, p. 148). Relevance between high school and the job market is crucial in closing the achievement gap, but given Ogbu's comments, the foundation of the real world is the job market, which must be free of discriminatory practices. As long as there is prejudice in the work place, the achievement gap will continue to exist despite the relevance of curriculum. As Rothstein (2004a) stated, "as long as racial discrimination persists in the labor market, the average academic achievement of black students will be lower than the average achievement of white students, simply because many black students who see that academic effort has less of a payoff for them than it has for whites, can be expected to respond by reducing their effort" (p. 35).

Efforts to close the achievement gap must still be made in schools. As cited in this study, Corbett and Wilson (2002) interviewed approximately 400 minority students in middle and high schools, and the students preferred teachers who read from a book. Rothstein (2004a) stated, "White children are more likely than blacks to be read to or told stories in pre-kindergarten years" (p. 19). Richard Allington, president of the Independent Reading Association, responded to the 2005 reading scores on the NAEP by alluding to the achievement gap and by contrasting current policies with those from 30 years ago:

When the achievement gap was closing in the 70's and 80's, the federal government invested in people, helping many of us complete advanced degrees in

reading. Schools had access to many qualified reading teachers and reading specialists. That began to change in the 90's and what schools have access to today are off the shelf reading programs, the content of which change to meet the new policy. Perhaps we would see more improvement in reading scores and a smaller achievement gap if we reinvest in teachers. (2005)

Whether Type 1 or Type 2, all teachers must encourage students to read by reading to them on all grade levels, by encouraging leisure reading, by arranging visits to the library, and by discussing assigned readings. The practice of focusing on reading, given the research evidence, will improve the academic achievement of all students and has the potential of being one of many practices that can close the achievement gap.

Future Research

The two variables of teacher–student relationships and instructional approaches in the context of closing the achievement gap between minority and White students are worthy of pursuing on a grand scale. This study focused on a public high school with migrating minority students coming from an urban center to a school in a Long Island suburb. Frey's 2001 Brookings Center study on suburban diversity referred to the nation's largest metropolitan areas—Los Angeles, Chicago, Washington, D.C., Houston, and New York—which have the highest minority suburban populations in the country; these would be data-rich environments in an expanded study. Sample populations from these suburbs would number in the thousands, and different geographical areas of the country could be analyzed. More complex statistical approaches than those used in this study need to be employed. A multiple regression could be used to determine the strongest predictor (Type 1 or Type 2 teacher), could establish the significance of the predictor, and could measure how much variation in the Math A Regents or any appropriate examination can be explained by each predictor.

The research in this study focused on teacher–student relationships and instructional approaches as independent variables, but the role of parents and their impact on student achievement consistently surfaced in many of the sources cited. This study did not statistically account for the role of parents; there is a definitive need to analyze the role of the parent as an independent variable. A hierarchical linear regression could be used in a future study to determine the impact of various main effects and the interaction effect on a dependent variable (state assessment).

The Flanders’ 10-category instrument, even with the absence of two key categories as prescribed by the Seton Hall Institutional Review Board, allowed the researcher to accurately code and decode the behaviors of teachers. The histograms in Appendix A and Appendix B contain two observations per teacher in the study and reflect consistency regarding type; the researcher is highly confident that the elements in the original observation were recreated in their proper perspective during the decoding process. In a future study, the complete Flanders’ instrument could provide an even more comprehensive picture of the classroom since student behavior would be observed; however, there is growing concern that privacy laws meant for the protection of students may impede research:

Researchers looking to tap into the treasure troves of long term student achievement data that states and district are starting to pile up say their efforts are increasingly running up against a decades-old federal law designed to protect student privacy. The conflicts are arising, in part, out of two movements that have swept the U.S. education landscape in recent years: the push to hold schools accountable for students’ educational progress, and the emphasis on schools’ use of only programs deemed to be backed by scientific based research. (Viadero, 2006, p. 1)

If educators want schools to improve, future researchers must have access to student achievement data to determine best practices.

Conclusion

The inferential quantitative statistics in this study indicate that the variables of positive, significant teacher–student relationships and student-directed instructional practices do not have a significant impact on the academic achievement of African American and Hispanic students who migrated to the suburbs from the city within the last 3 years, and the influence of the Type 2 teacher does not significantly close the achievement gap. However, the statistics in this study do show an incremental increase in the Math A mean of the students of the Type 2 teacher ($\mu = 82.25$) over the students of the Type 1 teacher ($\mu = 80.03$). The statistics in this study and the literature on the student–teacher relationship demonstrate that policy makers and educators must continue to stress the importance of the connection between teacher–student relationships and student achievement. While the formal research in this study on the teacher–student relationship is persuasive in emphasizing relationships, the testimony of students is compelling:

One student says, “I find it encouraging when teachers tell me I can do it and when they don’t make judgments about why I haven’t done something that I was supposed to.” Another says, “I find it encouraging when teachers give me full explanations to help me understand things, instead of yes or no answers.” A third student says, “I find it encouraging when teachers stay after school to give extra help and don’t seem like they’re in a big hurry to go [home].” (Ferguson, 2002, p. 3)

In the 22 classes the researcher observed, there was a noticeable difference between the learning behaviors of students of Type 2 teachers and the students of Type 1 teachers. The students of the Type 2 teacher were more engaged in learning activities, demonstrated enthusiasm about the subject material, and created a casual but productive environment. The students of the Type 1 teacher were passive and predominantly filled the role of note taker. Young teachers coming into the profession must realize the

necessity of the demanding task of building relationships with students. Teachers have to establish solid relationships with students to promote academic achievement, but must manage to remain professional at the same time. The requirements of a teacher's role in a diverse population is exhausting but, at the same time, extremely rewarding. As

Herszenhorn observed,

In interviews and in visits to small schools, it was clear that schools had built closer relationships between teachers and students than the traditional large schools. But it was also clear that teachers in these schools were being called on to perform roles for which they were not trained, counselor, social worker, foster parent. Many spoke of feeling professional and emotionally exhausted. (2005)

The instructional practices cited in this study are critical to the success of any teacher but most critical to the teachers of diverse populations. In evaluating teachers, observers should look more to what the students are doing in the classroom; are the students excited, involved, engaged, and working cooperatively? Active learning—which “[brings] students into the process of their own education” (Lorenzen, 2001, p. 19)—will help close the achievement gap.

Though not formally studied in this dissertation, the role of family is also an important consideration in closing the achievement gap. Coleman's 1966 study concluded that the main reason for student success was family background. Tatum (1987), in writing about 20 African American families in a coastal suburb of California, noted: “In almost all, education was seen as very important by at least one, if not both, of the parents, though families varied in their ability to translate their desire for education into actual achievement of it” (p. 50). Richard Rothstein (2004a) likewise stressed the importance of a family's income, the education of the parents, and the willingness of parents to act as a bridge between the child and the school.

In his works cited throughout this study, Rothstein (2004a, 2004b) consistently claimed that the achievement gap cannot be closed by schools alone. Schools are overwhelmed by societal problems that affect the academic achievement of students. Rothstein cited inequities between African Americans and Whites (such as medical care, housing, income, discrimination in the work place, and education), and he insisted that these problems must be solved in order for all students to flourish. Ogbu (1986) argued that many African American students do not succeed in school because of “oppositional identities”: they combat the adoption of White values and equate doing well in school with “acting White.” Ogbu’s “acting White” theory was not observed in the Valley Stream Central High School District during this study or in the district experience of the researcher.

Robert J. Marzano, a prominent researcher, believes schools can compensate for societal ills and the lack of family background:

The clear message from the research is that schools can make a difference. If the knowledge and skill that students from advantaged backgrounds possess is learned rather than innate, then students who do not come from advantaged backgrounds can learn it too. Indeed, even acts of intelligence once thought to be genetically based appear to be amenable to change through schooling. To accomplish such a task, schools must be willing to dedicate the necessary time and resources to enhancing the academic backgrounds of students. (2004, p. 14)

An educator must believe in Marzano’s argument to stay productive and to continue the focus on significant teacher–student relationships and instructional strategies. If an educator adopts Rothstein’s view, then the educator’s monumental, daily efforts in school are futile.

This study has focused on the achievement gap between minority and White students, and this researcher concludes that the achievement gap will close in less than 25 years as long as the following point of view is pervasive:

“Regardless of race, gender, home environment, or the community or housing complex our students come from, high expectations for their behavior and academic performance will not change,” says Susan Schaeffler, founding principal of the D.C. Key Academy. “The expectation that our children will perform at a high level is set in stone, and our staff is committed to doing whatever it takes to make sure our children succeed, regardless of the obstacles they encounter.”(Varlas, 2005, p. 8)

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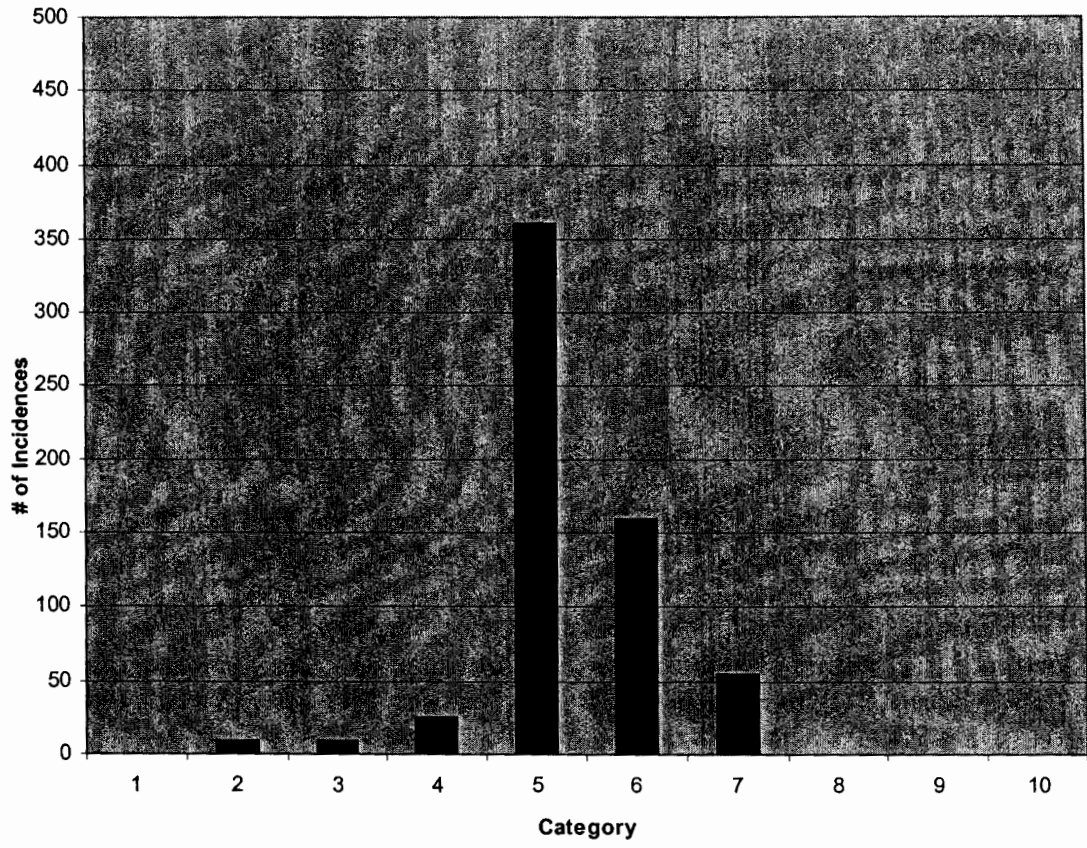
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APPENDIX A

Histograms: Type 1 Teachers

Teacher B
Type 1

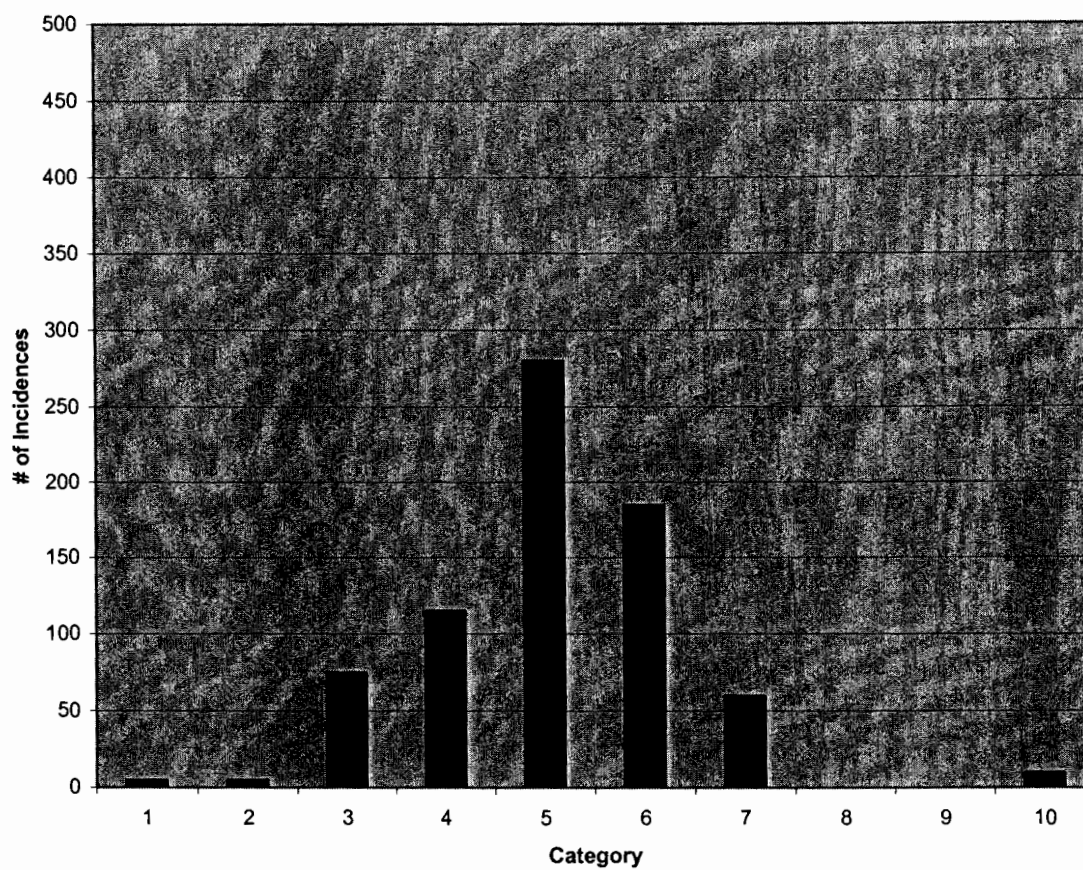
Observation Date 11/14/05



Note. Periods of silence: distribution of quiz (10 minutes).

Teacher B
Type 1

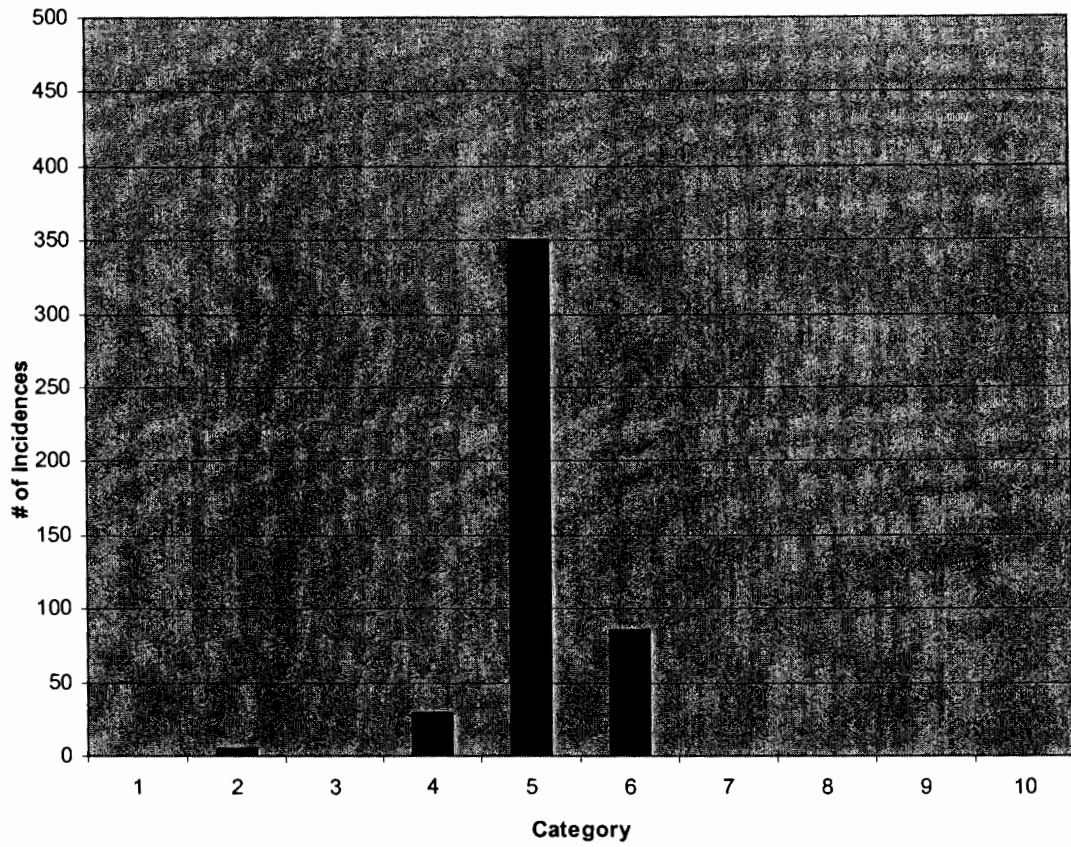
Observation Date 11/15/05



Note. Periods of silence: notebook check (5 minutes); 2 questions (5 minutes); 1 question (3 minutes).

Teacher C
Type 1

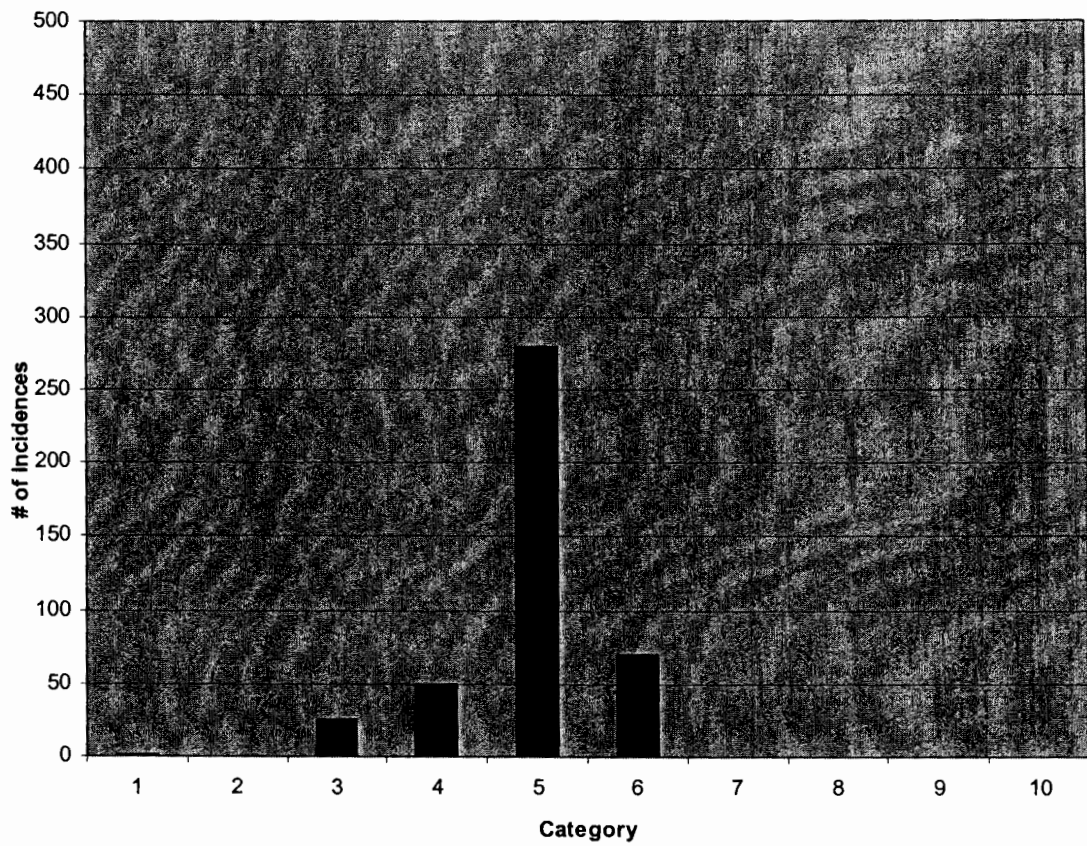
Observation Date 11/14/05



Note. Periods of silence: 4 examples on overhead (10 minutes); 4 examples on overhead (9 minutes); 3 examples on overhead (5 minutes).

Teacher C
Type 1

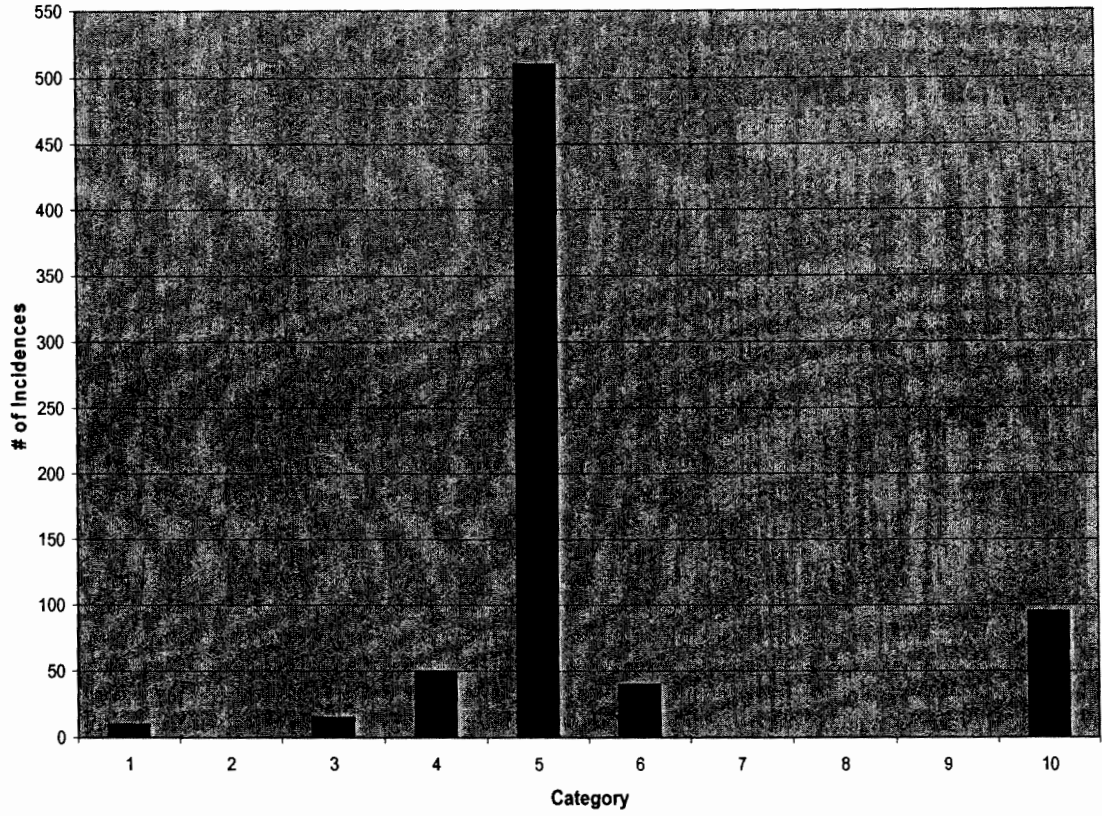
Observation Date 11/15/05



Note. Periods of silence: “do now” and homework check (3 minutes); independent worksheet check (5minutes); copy notes (3 minutes); 1 problem (3 minutes); 1 problem (3 minutes); quiz (8 minutes).

Teacher H
Type 1

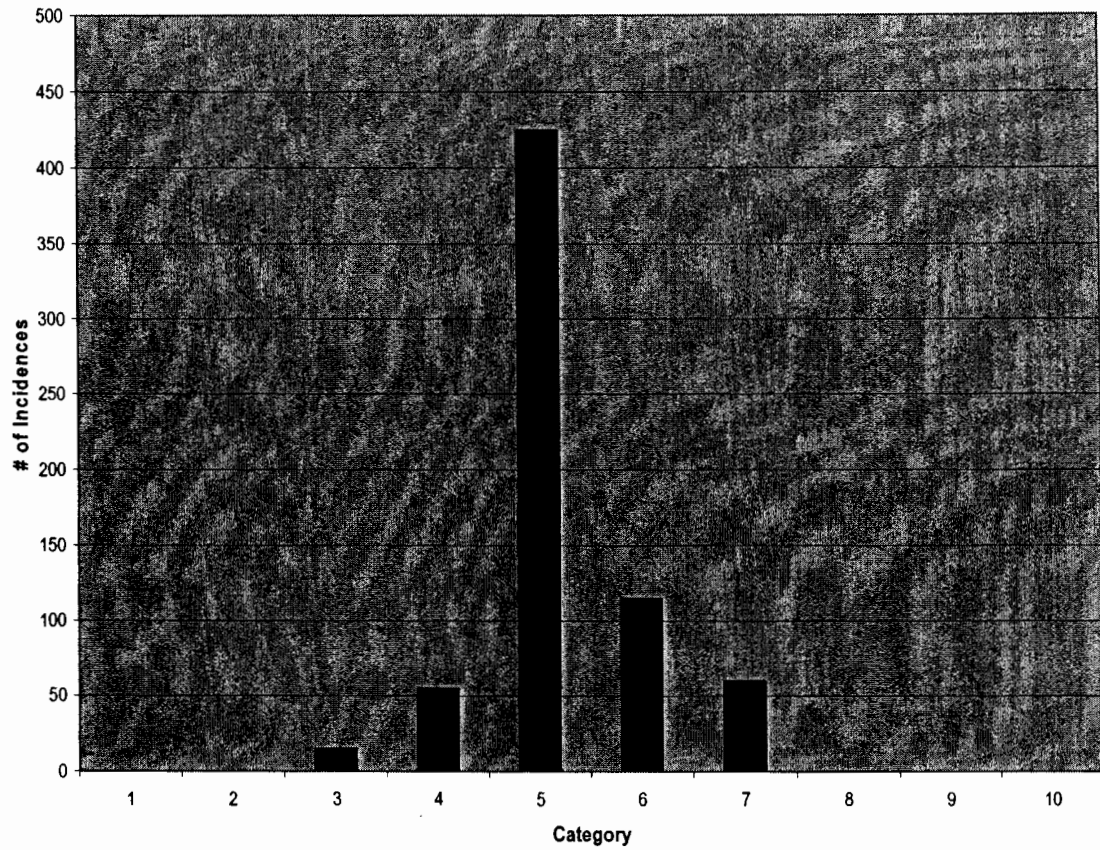
Observation Date 11/28/05



Note. Periods of silence: student calculator use (10 minutes).

Teacher H
Type 1

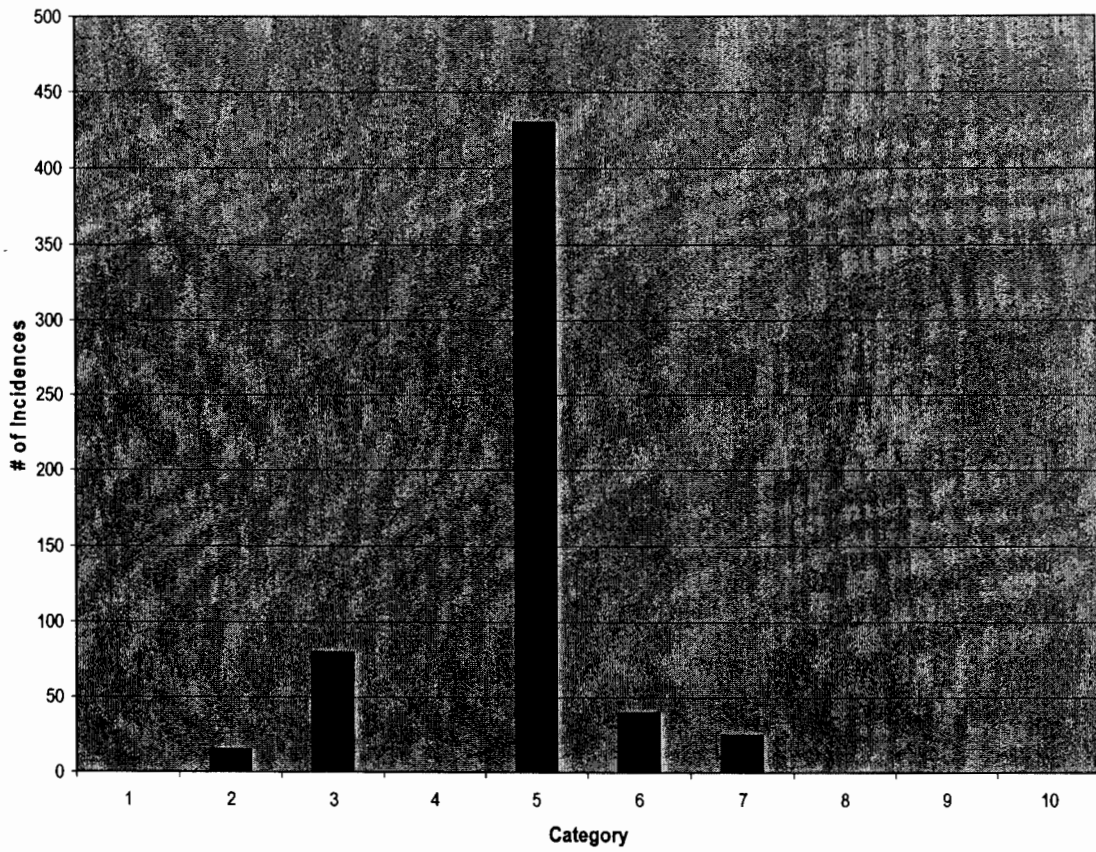
Observation Date 11/30/05



Note. Periods of silence: solitary work on 4 problems (10 minutes).

Teacher I
Type 1

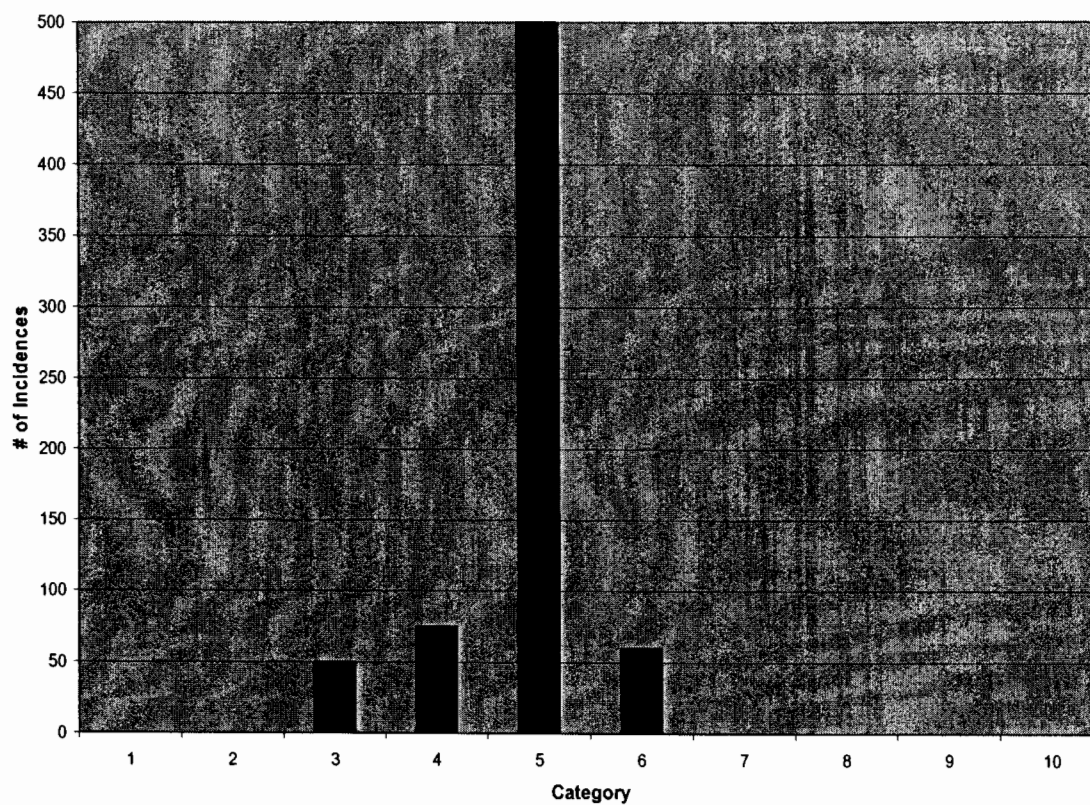
Date of Observation 12/07/05



Note. Periods of silence: “do now” (5 minutes); 3 problems (5 minutes); closure (3 minutes).

Teacher I
Type 1

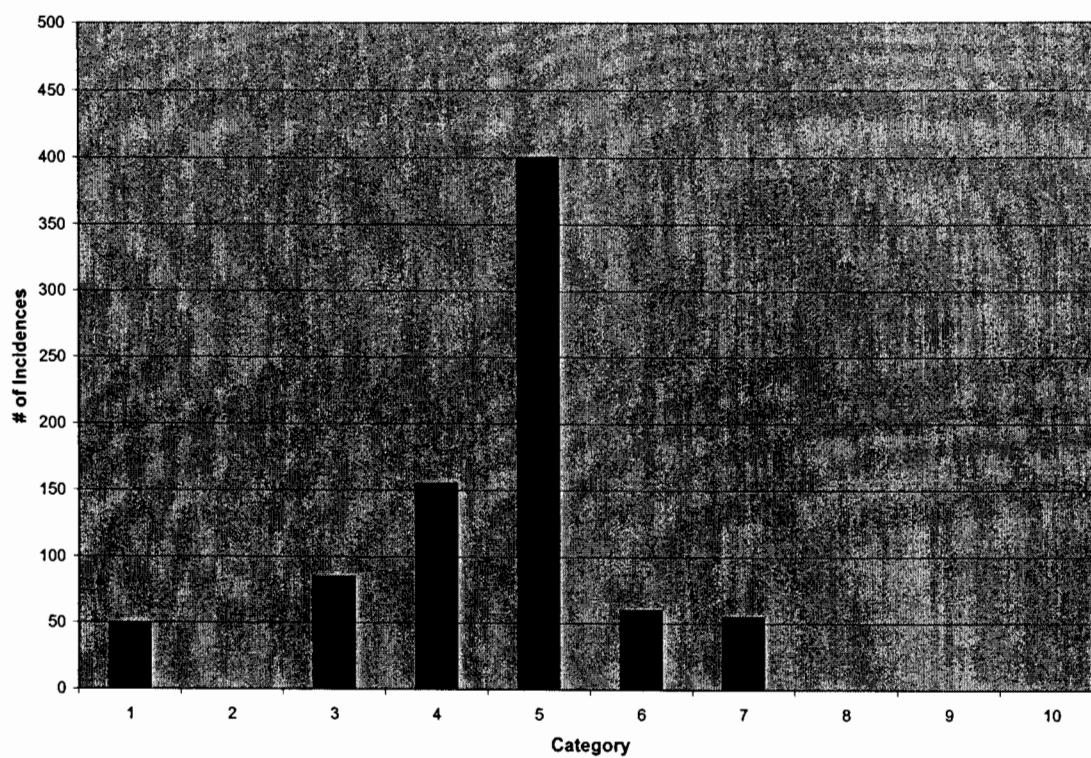
Date of Observation 12/08/05



Note. Periods of silence: “do now” (5minutes); questions 1–3 (5 minutes).

Teacher J
Type 1

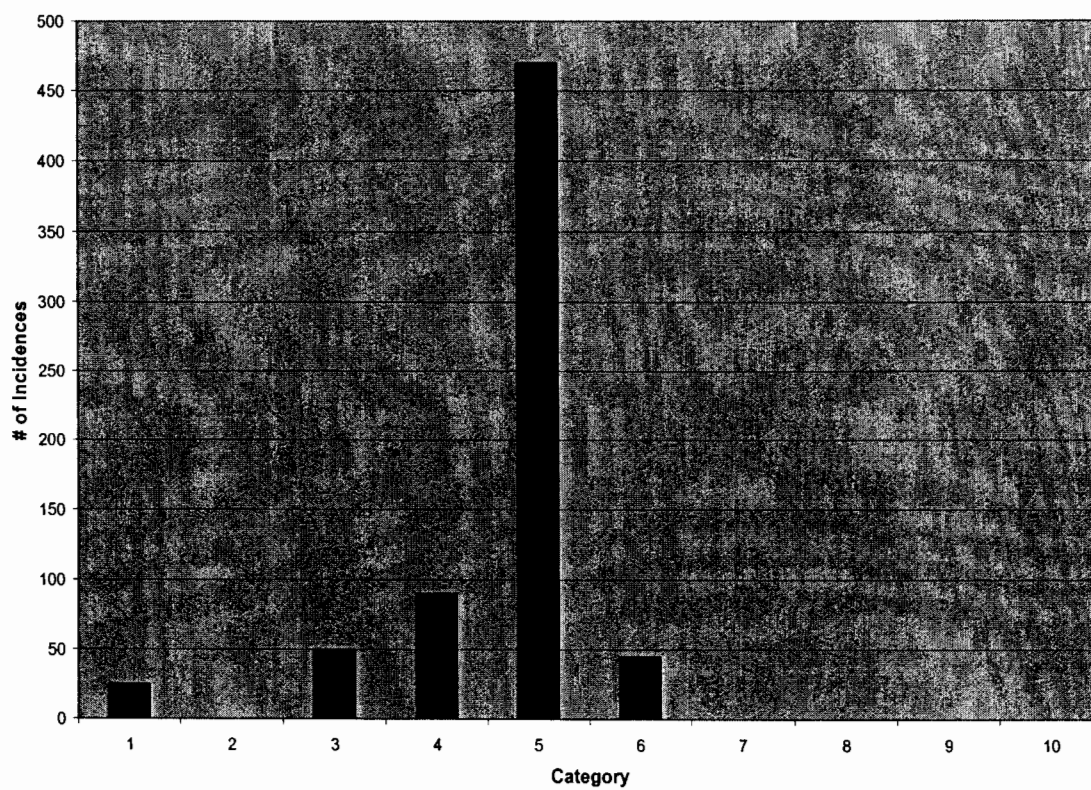
Date of Observation 12/07/05



Note. Periods of silence: 2 problems (3 minutes).

Teacher J
Type 1

Date of Observation 12/08/05



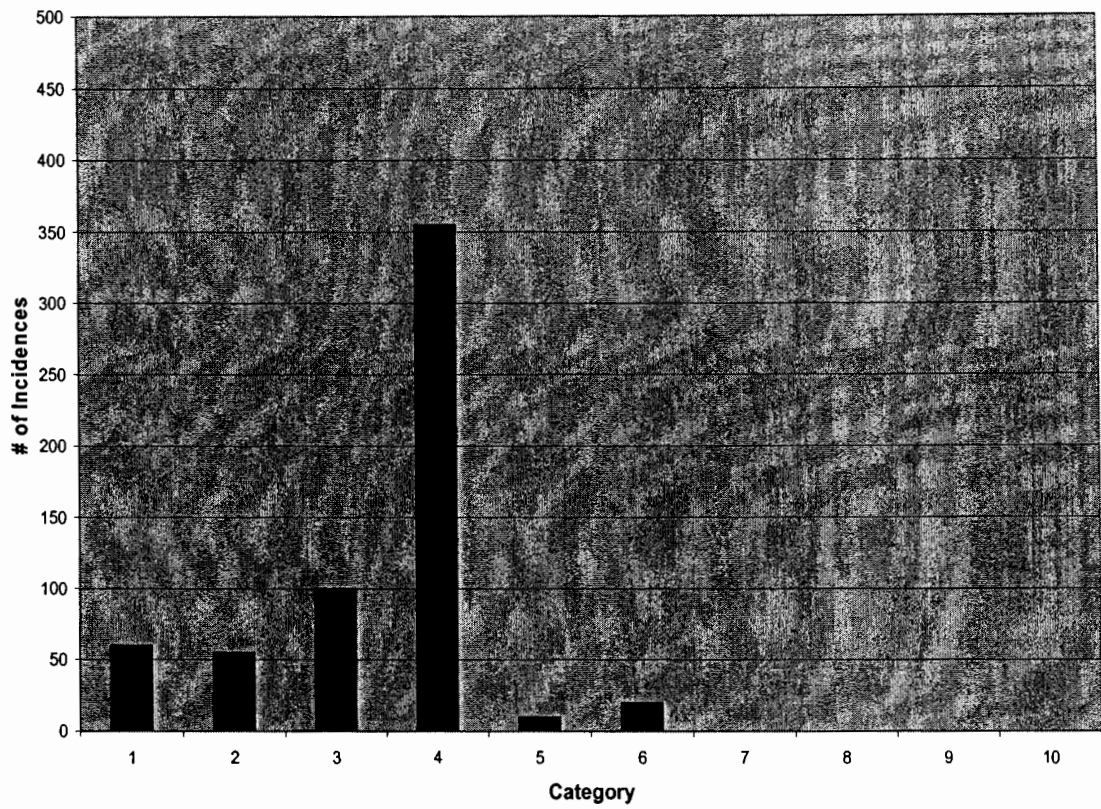
Note. Periods of silence: homework questions 1–5 (10 minutes); class work questions 1–4 (9 minutes).

APPENDIX B

Histograms: Type 2 Teachers

Teacher A
Type 2

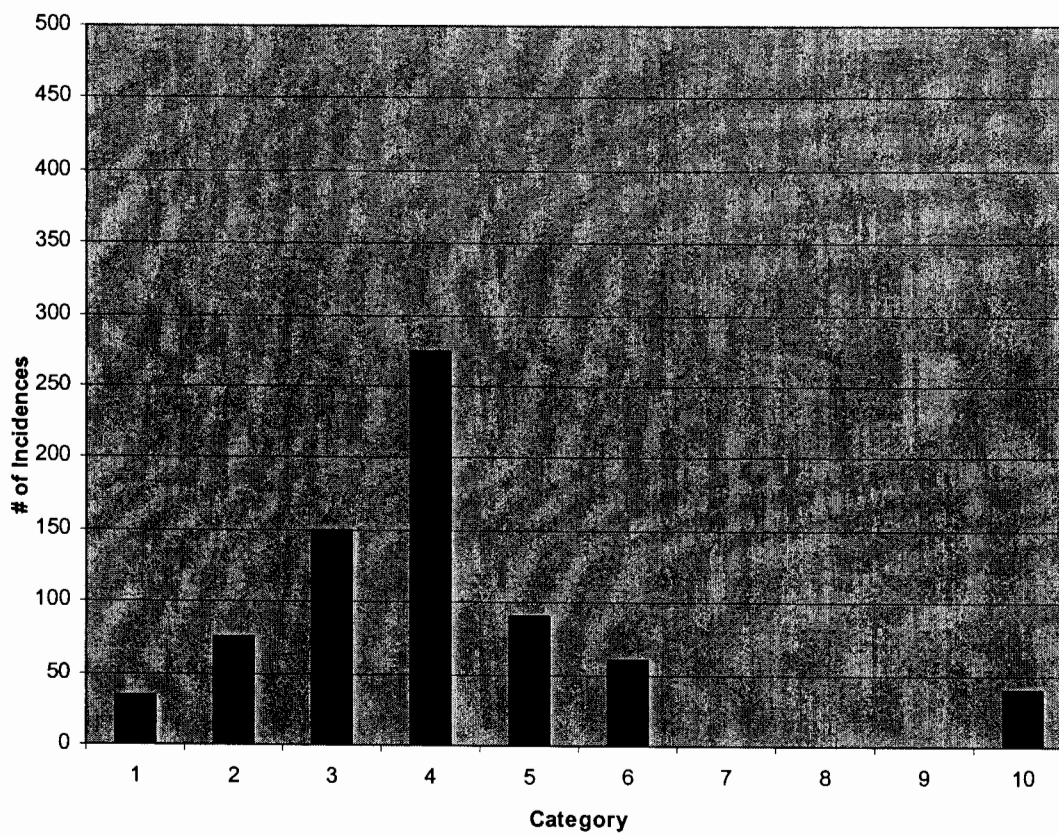
Observation Date 11/14/05



Note. Periods of silence: distribution of worksheet (5 minutes); distribution of quiz (5 minutes). Students worked in pairs (10 minutes).

Teacher A
Type 2

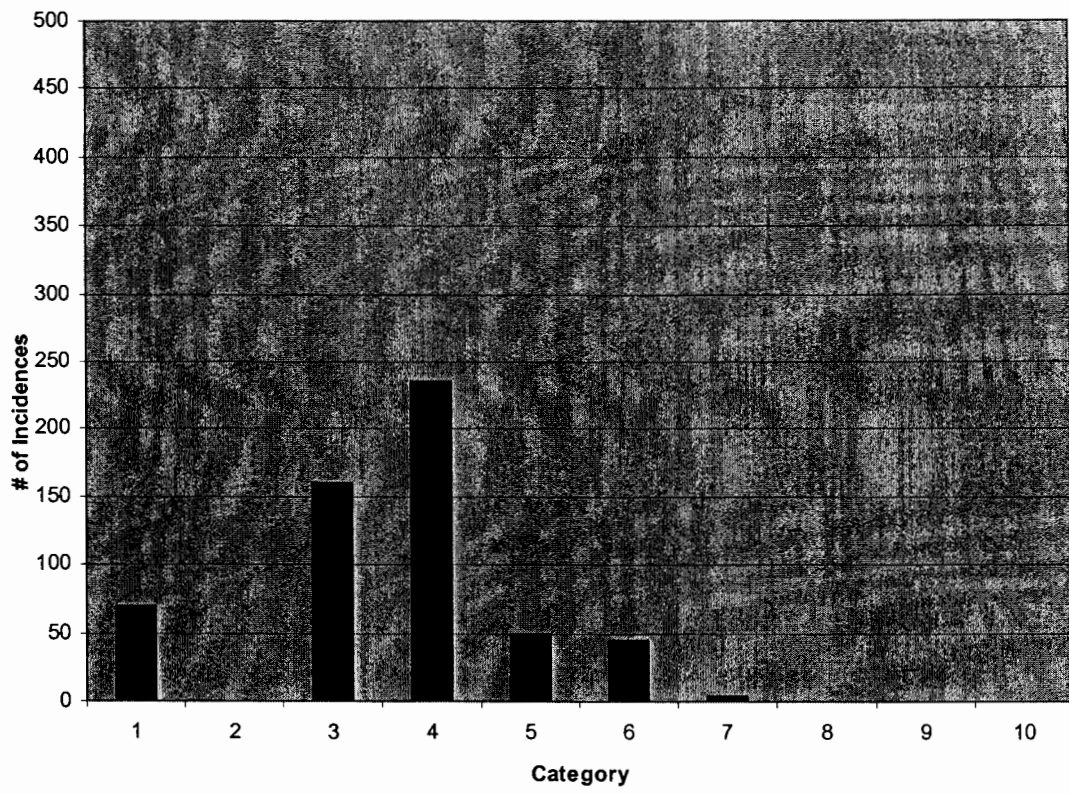
Observation Date 11/14/05



Note. Periods of silence: 3 problems (5 minutes).

Teacher D
Type 2

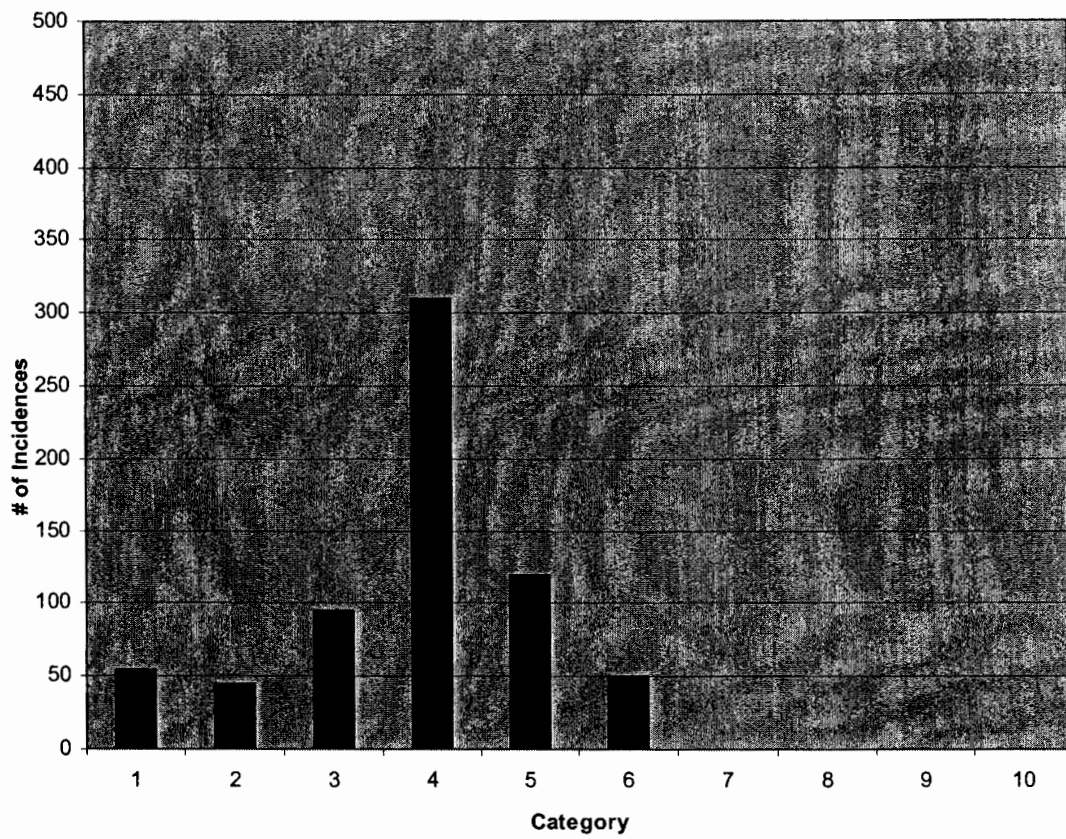
Observation Date 11/14/05



Note. Periods of silence: 3 questions on board (5 minutes); 3 questions on handout (7 minutes); 3 questions on board (4 minutes).

Teacher D
Type 2

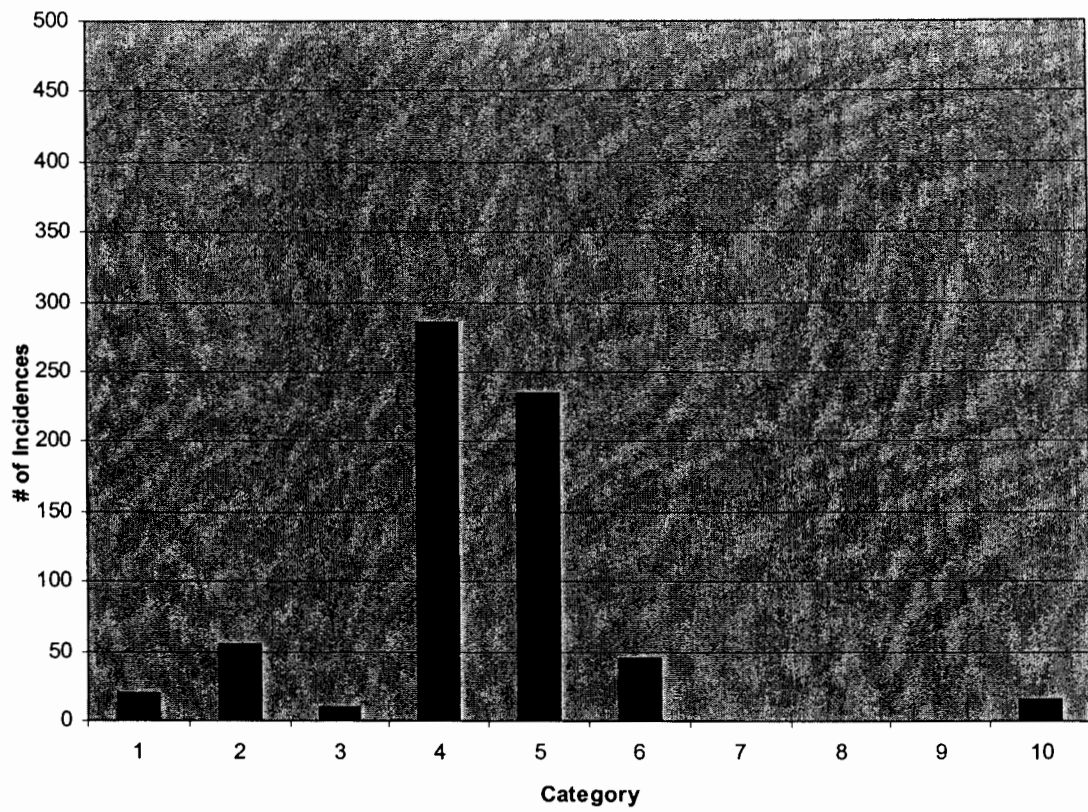
Observation Date 11/18/05



Note. Periods of silence: “do now” (4 minutes); 3 problems (5 minutes).

Teacher E
Type 2

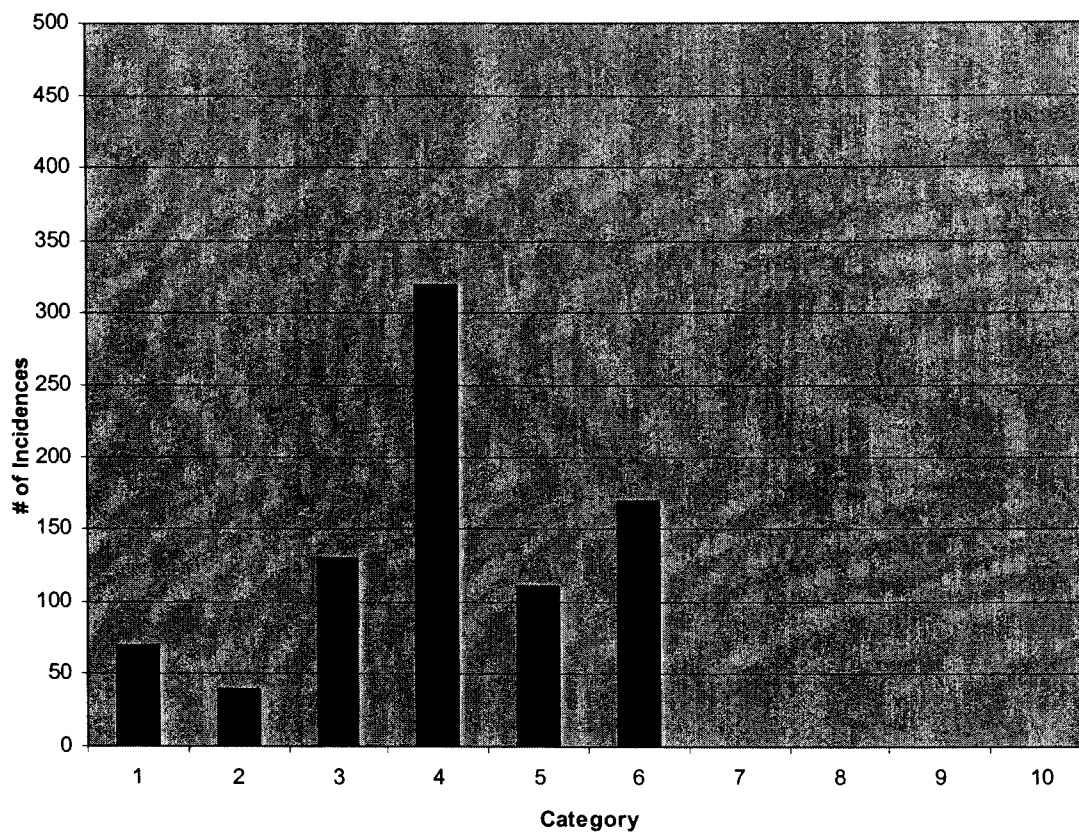
Observation Date 11/16/05



Note. Periods of silence: “do now” (4 minutes); 1 problem (2 minutes); 1 problem (2 minutes); copy homework problems (3 minutes).

Teacher E
Type 2

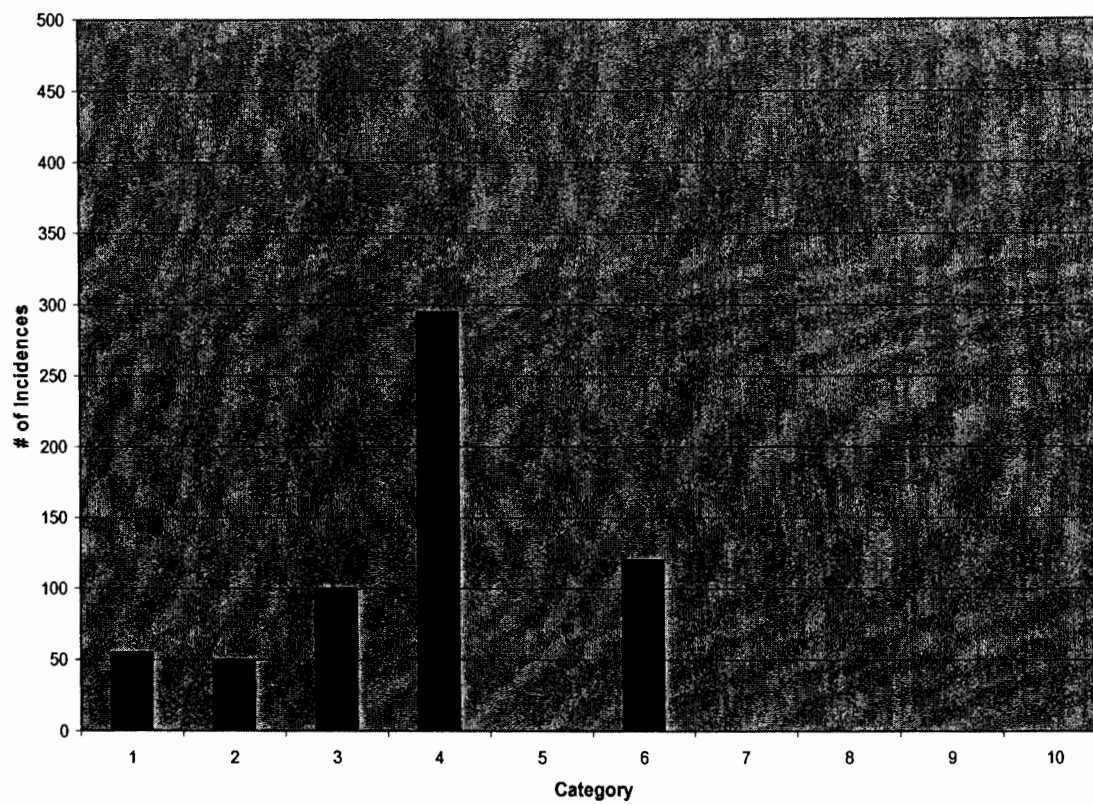
Observation Date 11/18/05



Note. Periods of silence: “do now” (4 minutes); 1 problem (2 minutes); 1 problem (2 minutes).

Teacher F
Type 2

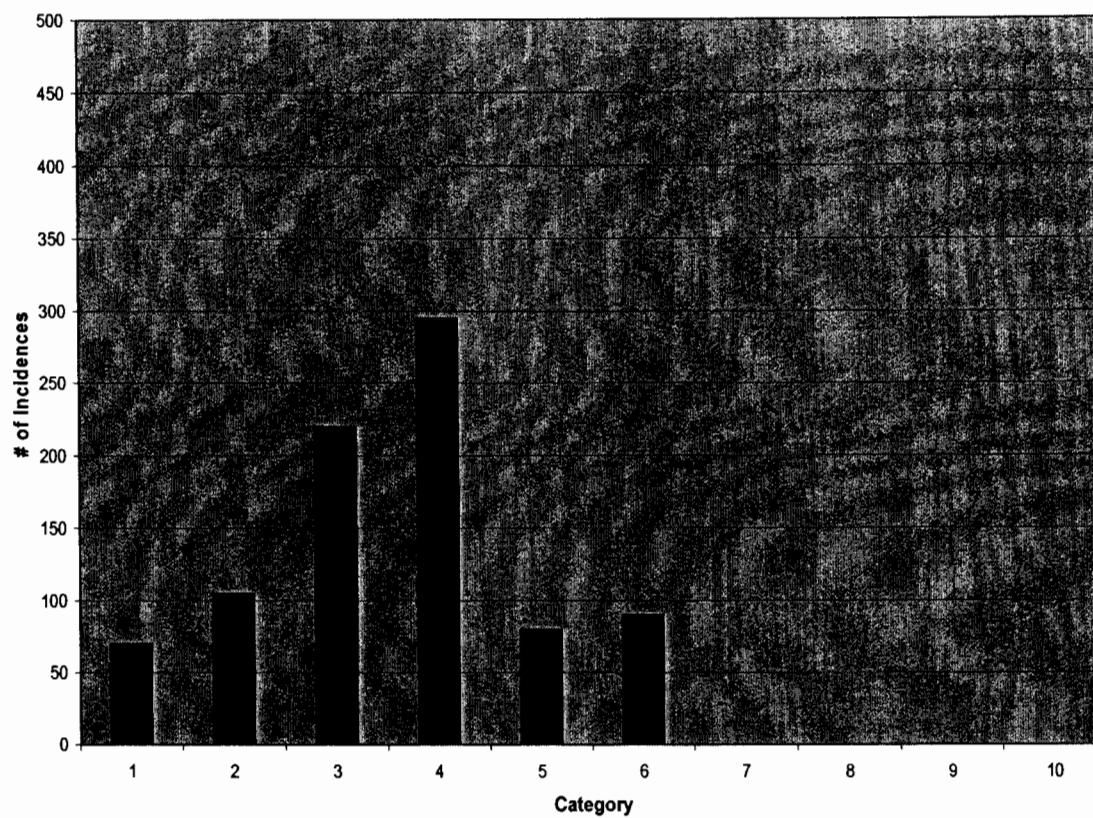
Observation Date 11/28/05



Note. 10 minutes cooperative learning (teacher monitors groups) in SIS class.

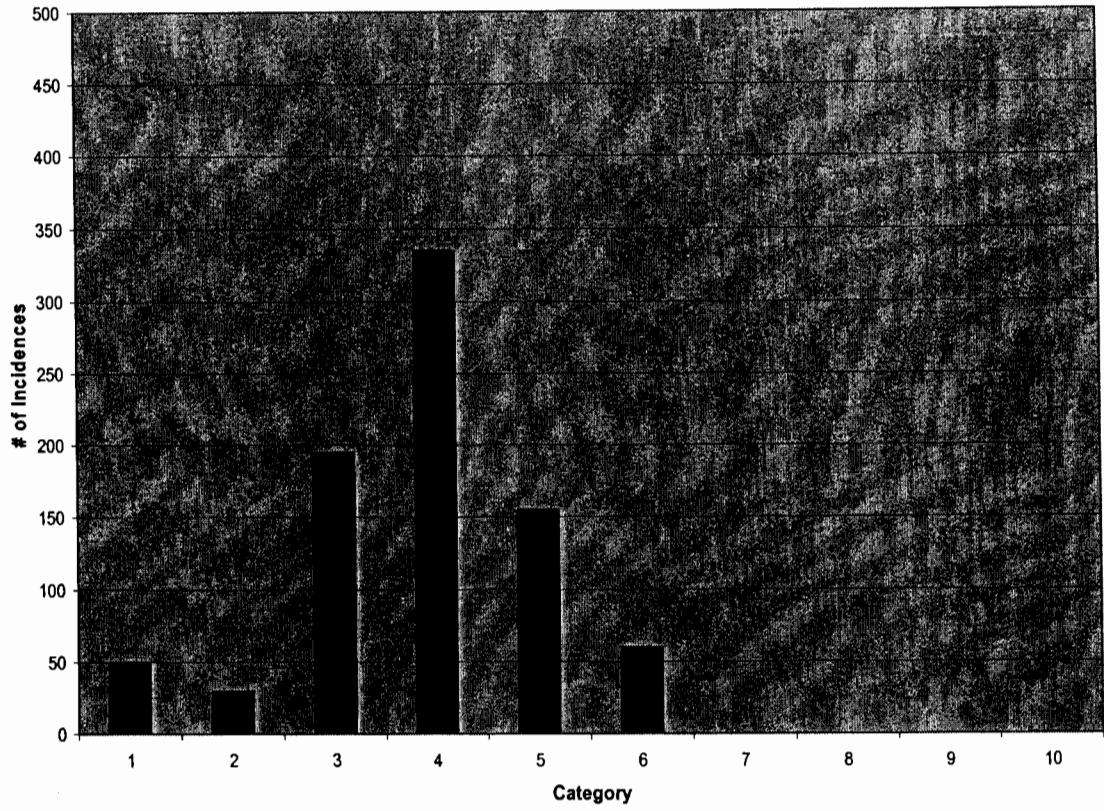
Teacher F
Type 2

Observation Date 11/28/05



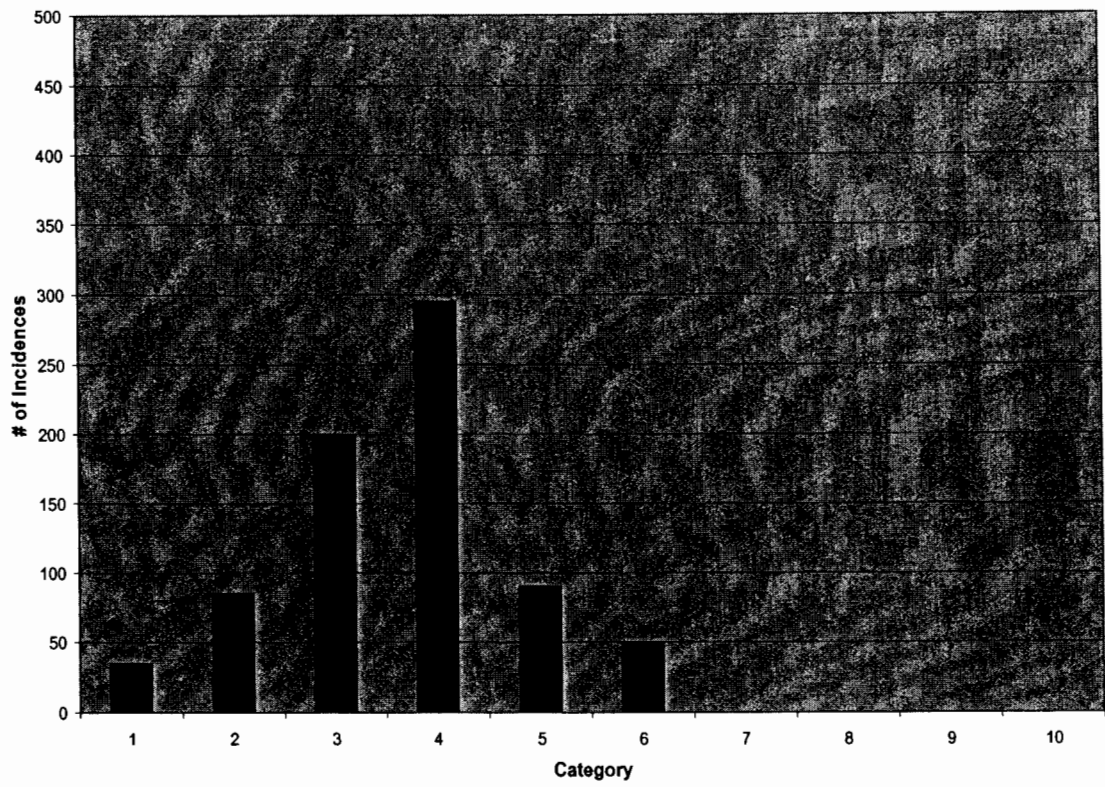
Teacher G
Type 2

Observation Date 11/28/05



Teacher G
Type 2

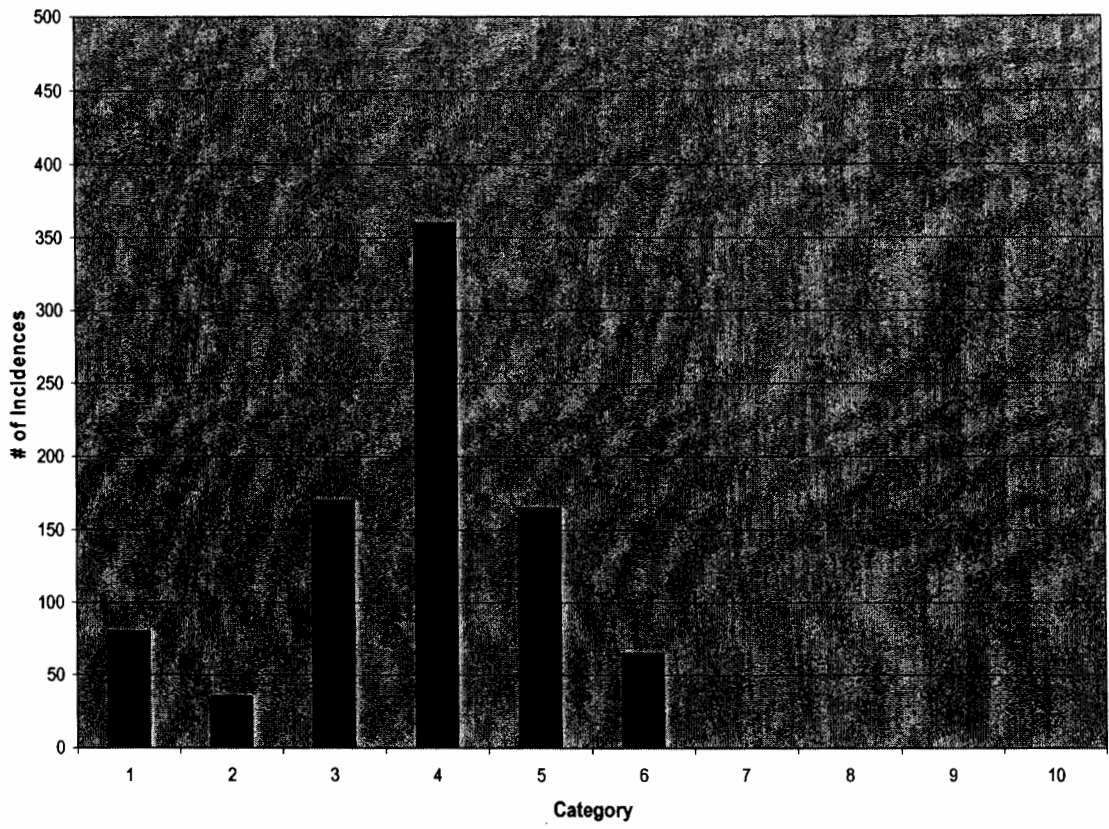
Observation Date 11/29/05



Note. Announcements (5 minutes).

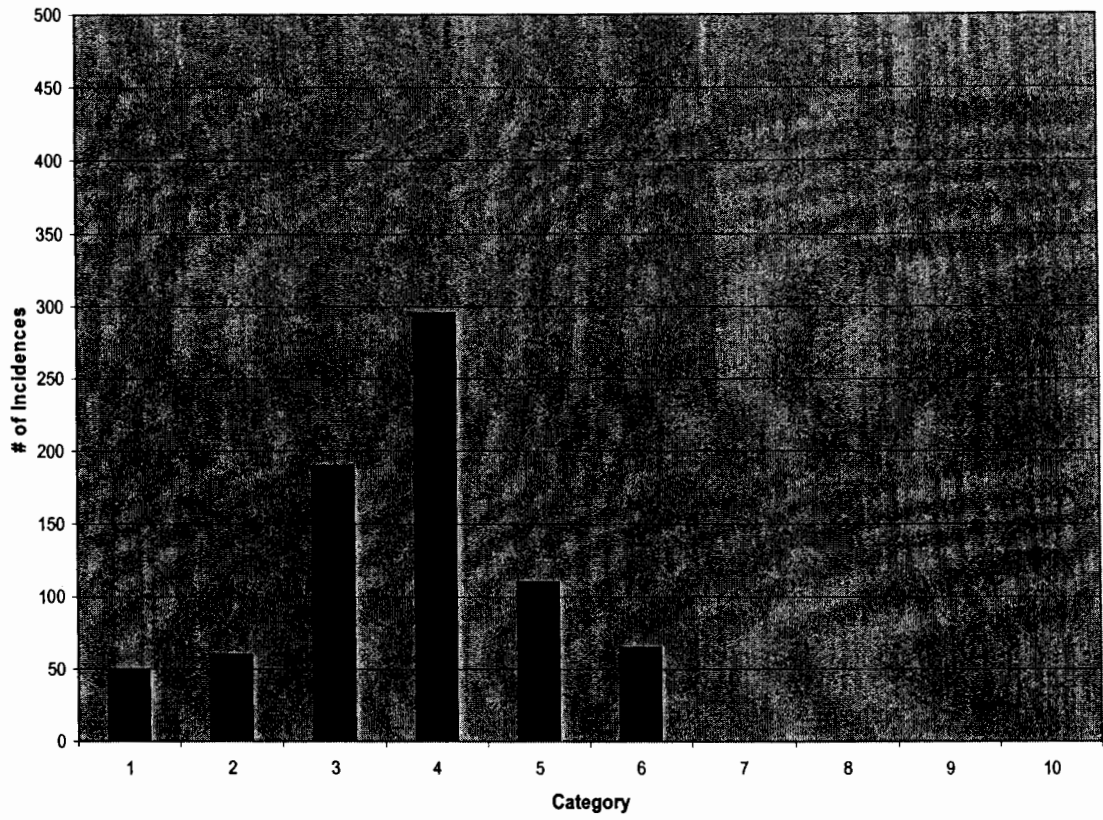
Teacher K
Type 2

Date of Observation 12/07/05



Teacher K
Type 2

Date of Observation 12/08/05



Note. Periods of silence: "do now" (5 minutes).