THE ASSOCIATION OF TEACHER-STUDENT RELATIONSHIP QUALITY AND TEACHER SUPPORT WITH STUDENTS' SCHOOL SATISFACTION, CLASSROOM ADJUSTMENT, AND ACADEMIC ACHIEVEMENT

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ABSTRACT

THE ASSOCIATION OF TEACHER-STUDENT RELATIONSHIP QUALITY AND TEACHER SUPPORT WITH STUDENTS' SCHOOL SATISFACTION, CLASSROOM ADJUSTMENT, AND ACADEMIC ACHIEVEMENT

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As children grow, they transition from home to school environments, where they acquire and master knowledge and skills, and develop an image of themselves as learners and develop several types of relationships with adults as they grow. As they enter and remain in school, these relationships expand from being solely with parents and caretakers to include their teachers. Due to the large amount of time children spend in school, it is important to examine and understand how the school environment and its affordances, and the relationships that children form while there influence their lives, and especially their academic success or failure.

This study examines the influence of student-teacher relationships and teacher support on the academic achievement and satisfaction with school for K-5 students. Using longitudinal growth modeling, specifically, cross-classified random effects modeling, the study found that decreased conflictual relationships between teachers and students were associated with increased achievement in math and reading over time. Also, there was evidence of the Black-White test gap. Moreover, this gap was greater during K-3 than it was during 3-5 period.

DEDICATION

This dissertation is dedicated to my parents; my father Samson Nyambane and (to the memory of) my loving mother, Prisca Nyanchwa Nyansuku for their unrelenting belief in the value of education, and their unwavering support of my pursuits. Mbuya mono!

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CHAPTER ONE

INTRODUCTION

1.1 Problem Statement

In the beginning of formal schooling, children enter a new environment that can be quite incomprehensible to them at the time. This marks the start of their transformation as members of other environments, besides their home. Once in the school environment, they form an image of themselves as students and embed this image into their identity. They learn the school rules and regulations and, how to relate with other students, their teachers, and the school principal. Perhaps more important, they master the required knowledge and skills. As they make this transition from home to school, they mainly rely on their parents, siblings, and teachers for emotional support as they navigate the school system and cope with new challenges.

Students who successfully navigate these early school life challenges gain a competitive advantage which becomes manifest years later (Entwisle & Hayduk, 1988) and this advantage may stay with them for the rest of their lives. On the other hand, students who do not have a positive school experience may develop negative traits that could linger for a very long time. In fact, both positive and negative teacher-child relationships observed in kindergarten have been linked to academic and behavioral outcomes in the eighth grade and beyond (Hamre & Pianta, 2001). This underscores the importance of early childhood school experiences in shaping the future of students.

How children adjust to school environments is a widely studied topic, in part because school is where children spend a large portion of their time. Hence, it is an important context in which they develop (Baker, Dilly, Aupperlee, & Patil, 2003). Indeed, students that perceive the school's social environment as warm and psychologically safe (e.g. by being in a positive classroom environment and having caring and supportive relationships with their teachers) tend to be satisfied with their school experiences, often leading to good social and academic performance. The reverse is also true (Baker, 1998; Goodenow & Grady, 1993; Pianta, 1999).

As children grow, both at home and at school, they acquire habits and attitudes that determine and shape their cognitive development. Because these habits and attitudes differ across social fabrics, it is imperative for those who seek to understand the confluence of schools and students' needs to also learn about the child's social setting. Existing literature posits that *social structural factors* such as gender, socio-economic status, and majority or minority status, and *social contextual factors* such as the influence of parents, teachers, and one's peers greatly affect a student's cognitive development (Alexander, Entwisle, Blyth, & McAdoo, 1988; Delpit, 1988). It also posits that the most critical time for shaping the academic future of a student is during the student's early years of schooling (Alexander et al. 1988). This implies that for one to be able to predict or explain academic achievement gaps among different student groups, one has to understand both the students' social settings as well as their early childhood school experiences in, for instance, preschool, kindergarten, and first through third grades.

Early childhood school experiences are greatly influenced and affected by the relationships that students build with teachers. In turn, the nature of such teacher-student

relationships is influenced by, among other factors, the student's behavior, the student's family social and demographic background, as well as the teacher's perception of the student's social disposition and academic ability. In general, teachers tend to gravitate towards, and form relationships with, students who are cooperative, well behaved, and have a high aptitude (Birch & Ladd, 1998; Henricsson & Rydell, 2004; Pianta, 1994; Pianta & Nimetz, 1991). Indeed, it is not uncommon to find teachers who behave differentially, albeit unintentionally, towards high-achieving students compared to their low-achieving peers. The former group often receives more positive and supportive interactions and is held to high academic standards, while the latter group has more negatively affective interactions with low academic expectations placed on them (Baker, 1999; Henricsson & Rydell, 2004; Midgley, Feldlaufer, & Eccles, 1989).

Many studies have explored various factors that affect teacher-student relationships (Baker, 1998; Goodenow & Grady, 1993; Pianta, 1999) and how these relationships affect student outcomes (e.g. Pianta & Stuhlman, 2004; Baker, Kamphaus, Horne, & Winsor, 2006; Ewing & Taylor, 2009). The overwhelming finding from these studies is that teacher-student interactions matter, and the nature and quality of these interactions is important in predicting student outcomes (see for example Hughes, Gleason, & Zhang, 2005; Hughes & Kwok, 2006; Hughes, Zhang, & Hill, 2006).

However, majority of these studies (on teacher-student relationships) have focused either on very young children (Alexander, et al., 1988; Birch & Ladd, 1997; Hughes, Gleason, & Zhang, 2005; Pianta & Stuhlman, 2004), middle school children (Battistich, Schaps, & Wilson, 2004) or adolescent children (Roeser, Midgley, & Urdan, 1996; Wentzel, 1998). The elementary school years have received minimal attention, despite

the importance of this period in the developmental outcomes of children. During these years, children develop beliefs about schooling, their academic capabilities, and form identities of who they are as learners (Baker, 1999; Entwisle & Hayduk, 1988). It is therefore important to study factors (such as interpersonal relationships) that may enhance (or impede) the processes of learning at this stage, and put measures in place that would promote student learning and development. Moreover, much of the previous research on student-teacher relationships uses samples with predominantly large proportions of Caucasian students relative to students of other races. In contrast, the sample used in this study is unique because 72% of the children belong to racial minority groups.

Thus, the purpose of this correlational study is to extend this strand of research by exploring the associations between the quality of relationships developed between teachers and their students, and student outcomes. The research questions answered by this research and hypotheses tested are explained in the next section.

1.2 Research Question and Hypothesis

The *objective* of this study is to determine how, and to what extent, changes in *teacher-student interaction variables* are related to student outcomes. To accomplish this objective, this study answers the following overarching research question:

What is the relationship, over time, between a student's overall satisfaction with school, adjustment to classroom environment, and academic achievement, and the quality of teacher-student relationships, and teacher support?

To answer this question the following hypotheses were tested empirically:

Hypothesis 1: Close student-teacher relationships and increased teacher support are strongly and positively related to larger gains in (student) overall satisfaction with school, adjustment to classroom environments, and academic achievement for students with behavior problems over time.

Hypothesis 2: Over time, conflictual relationships between teachers and students and a reduction in teacher support are related to smaller gains in (student) overall satisfaction with school, adjustment to classroom environments, and academic achievement for students with behavior problems.

The objective is accomplished by analyzing data on students and their teachers from four elementary schools in a small city in Southeastern United States. The data is analyzed using a two-level cross-classified random effects model explained in Chapter three.

1.3 Organization of dissertation

The dissertation is organized into five chapters. Chapter two contains a review of selected literature on teacher-student relationships and student outcomes. The estimation model and data used for analyses are described in Chapter three with detailed explanations of measures used to construct student and teacher variables. The results are presented in Chapter four, which are then discussed and summarized in Chapter five. The strengths and limitations of the study are also highlighted, along with suggestions for future research.

CHAPTER TWO

LITRATURE REVIEW

2.1 Introduction

This chapter reviews the literature linking teacher-student relationships and teacher support to student outcomes. The goal of the review is to enhance understanding of the current literature and to clarify the contribution this study makes to existing literature. The overarching theme of the selected literature is that teacher-student relationships manifested as closeness or conflict are related to learning outcomes of students. The review is divided into three subthemes that highlight different issues related to teacher-student quality and student learning outcomes.

First, Section 2.2 begins with a review of studies that focus on the evidence that the quality of teacher-student relationships is related to academic achievement. The studies reviewed here provide such evidence. Next, Section 2.3 reviews literature linking students' social environments to academic achievement. Evidence is provided by this literature that supports the notion that students' social environments, including parent-child relationships, influence the behavior of students; which in turn, influence the quality of teacher-student relationships formed; which in turn affect student outcomes. Last, Section 2.4 reviews literature providing evidence that race is related to teacher-student relationships which, are in turn, related to learning outcomes.

2.2 Teacher-student relationship quality and academic achievement

Children develop several types of relationships with adults as they grow (Bowlby, 1982; Hughes, Cavell, & Jackson, 1999). As they enter and remain in school, these relationships expand from being solely with parents and caretakers to include their teachers. Existing studies have found that these relationships are important influences on a student's academic success or failure. In effect, one would expect the influence from such relationships to span other areas of a student's life beyond academics. This is true, especially, for relationships established during the early part of a student's learning journey such as kindergarten and elementary school. At that level, teachers play the role of 'the adult in the room' and, in this way, substitute for parents in shaping the child's behavior that would become entrenched in the child's personality in later years.

Indeed some studies have found that even academic expectations of teachers and parents for the children are an important influence on the children's performance. For example, Entwisle and Hayduk (1982) found that the nature of childhood teacher-student relationships are linked to student outcomes; not only in grade school but also in later years. In that study, the authors focused on a group of students from an earlier study conducted between 1971 and 1977 when the students were in first, second, and third grades. They examined the 1980 standardized scores for these students to see if observed variables in the first study had any lasting effect four to nine years later. Specifically, they considered how the children's self-expectations and achievement scores, parents' expectations, peer's expectations, and absences in early schooling may be related to outcomes in later years. They found that a parent's academic expectations for their child were important in explaining that child's performance. Also important was the influence

of teachers. Because this was one of the earliest studies to focus on student-to-adult relationships, as a factor influencing student outcomes, its findings among others, provided impetus for researchers to focus more on the role of child-parent relationships and teacher-student relationships in student learning.

In a follow-up study, Entwisle and Hayduk (1988) examined the influence of parents and teachers on a child's long-term school performance. They used the same data as in the preceding study but utilized regression models allowing them to study both individual and joint effects of several variables. Consistent with previous studies reviewed by these authors, they found that the performance expectations of parents and teachers for students in grades one through three, were good predictors of student performance on standardized tests, four to nine years later. An important difference of their study from previous ones is the use of an explicit structural model which was hitherto uncommon in these types of studies.

Another important finding of the study was that a child's social setting influences academic performance in later years and, parents and teachers have different relative influence on student outcomes depending on the social setting. Specifically, the study found that, for a student in a white middle class school, it was the parents' performance expectations for the child that had significant influence in the child's long-term performance and not the teacher's expectations. On the other hand, for a child in an integrated working-class school, it was the teacher's expectations that had significant influence while, for a child in a black working class school, it was both the parent's and teacher's expectations that were influential. The implication of the finding is that teacher-child relationships may have different impacts on students of different races and socio-

economic backgrounds. Many researchers continue to focus on these relationships and their influences on academic achievement of different groups of students.

For example, Baker (2006) examined the contributions that teacher-child relationships have on school adjustment during elementary school. She found that positive teacher-child relationships were beneficial for children across all grade levels in school adjustment. But students with behavior problems adjusted poorly to school, and lagged behind academically. In contrast, well behaved students developed close teacher-student relationships, and performed significantly better than those without such relationships. Buyse, Verschueren, Doumen, Van Damme, & Maes (2008) also found a similar result for kindergarten students. Similarly, Burchinal, Peisner-Feinberg & Howes (2002) found that close teacher-student relationships were positively related to development of language skills and reading competency of children in preschool through second grade.

Pianta, Steinberg, & Rollins (1995) report too that students who had positive relationships with their kindergarten teachers adjusted better to classroom environments when they got to first and second grade. Their study followed a group of students in a small city school district from Kindergarten through second grade and used correlation analyses to investigate the link between teacher-child relationships and children's adaptation in school. In essence what the study revealed was that children in positive relationships with teachers displayed lower levels of behavior problems and higher levels of competence. That is, these children tended (or were more likely) to stay *out of trouble* and apply themselves more productively to school work than their counterparts who had conflictual relationships with their kindergarten teachers. The latter group of students

exhibited higher levels of behavior problems and had lower levels of competence in first and second grade.

Further evidence in support of the notion that teacher-child relationships play a role in the academic success of the child is provided by Pianta & Stuhlman (2004). Their study found that teachers assigned higher achievement ratings to students with whom they shared close relationships than those with whom they experienced conflictual relationships. They used teachers' and parents' ratings of social and academic development of pre-school, kindergarten and first grade children to analyze the relationship between teacher-child relationships and the children's success. The study further revealed that students with higher ratings on teacher-child conflict were rated lower on social competence whereas those with close relationships were deemed more socially competent. This suggests that teachers may gravitate towards children with whom they relate well and away from those that they have conflict with.

Factors influencing the type of relationships established between teachers and their students are many and varied. For instance, Hughes, Cavell, & Willson (2001) highlight gender as one such factor in their study on the quality of teacher-student relationships among third and fourth grade students. Using sociometric peer ratings of students from an ethnically diverse school district, they found that girls were perceived as having received more support from teachers than boys. On the other hand, boys were perceived as having been in more conflictual teacher-student relationships than girls. This finding is consistent with similar previous studies which found evidence that teachers prefer and, relate positively with children who are cooperative, responsible, and courteous, as opposed to those that display disruptive and assertive behaviors (Sadker,

Sadker, & Klein, 1991; Wentzel, 1991). There is also literature which shows that students with caring and supportive interpersonal relationships in school are more positively predisposed in their attitudes and values towards their academic work and are more academically engaged and satisfied with school than their counterparts (Battistich, et al., 2004; Felner, et al., 1997). With higher levels of engagement in their work, such students tend to receive relatively more teacher support leading to higher academic performance (Klem & Connell, 2004). Apparently, these behavioral characteristics are more common in girls than in boys at the elementary school years, which would also explain the finding by Kesner (2000) that teachers rated their relationships with girls as being closer and less conflictual than their relationships with boys. In that study Kesner had interviewed a sample of pre-service teachers of K-5 students and found that the teachers perceived their relationships with boys to be more conflictual and less close than with girls.

The preceding studies underscore the importance of teacher-student relations in learning outcomes, especially, in early childhood. However, because this is a very broad topic many strands of the literature exist. These include, for example, impact of teacher-child relationships in early childhood education (Entwisle and Hayduk, 1988; Hamre and Pianta, 2001); impact of school environment and social structural factors on teacher-student relationships and performance (Alexander and Entwisle, 1988; Baker et al. 2003; Goodenow and Grady, 1993); and factors influencing teacher-student relationships (Baker, 1998; Baker et al., 2006; Ewing and Taylor, 2009; Goodenow and Grady, 1993; Pianta and Stuhlman, 2004). The current study makes a contribution to this literature by focusing on teacher-student relationships in the whole range of elementary school years,

rather than focusing just on the segmented portions of either pre-school, kindergarten, K-3, middle school, or high school students.

2.3 Social environment, student characteristics and teacher-student relationship quality

Student characteristics such as behavior greatly influence the type of relationship that develops with their teachers and subsequently the level of support that these teachers offer. Indeed researchers have found that in general, students with good behavior tend to receive greater support from teachers which in turn, mediates their achievement (e.g. Caprara, Barbaranelli, Pastorelli, Bandura, & Zimbardo; 2000). In an extensive study, these authors used a longitudinal design and structural equation modeling to investigate the relative impact of early prosocial (e.g. cooperation, helping, sharing) and aggressive behaviors on performance and found these behaviors to be instrumental in the academic and social developmental trajectories of children five years later.

Because the behavior a student develops is greatly influenced by the social environment in which that student is brought up, there is an inevitable overlap in the way these two topics (social environment and student characteristics) have been presented in the literature. For instance, Baker (1998) who examined the impact of social infrastructure and the school environment on children's school satisfaction also examined student characteristics at the same time. The study focused on children from a large southeastern metropolitan school district that were considered 'at-risk' because of significant poverty rates and its consequences such as violence, substance abuse and

disorderly conduct among adults in the community. In addition, the entire sample consisted of only African American children, all in grades three to five. Using the Multidimensional Students Life Satisfaction Scale (MSLSS; Huebner, 1994) and path analysis, Baker assessed the students' subjective feeling of well-being in order to assess their level of school satisfaction. She found that among the variables analyzed social climate in the classroom had the strongest direct effect on school satisfaction. It was also the only variable with significant indirect effect on school satisfaction by influencing other variables. This finding provides evidence that what goes on in the classroom greatly affects student outcomes. That is, the type of relationships that exist in the classroom among students as well as between students and their teachers are an important determinant of whether a student becomes satisfied with school or not. The study also found that the level of the student's self esteem was an important factor influencing school satisfaction. Clearly, students who are satisfied with school are more likely to have a sense of belonging and, hence, have greater academic success than those who are dissatisfied and have little or no sense of belonging (see also Goodenow and Grady, 1992).

In a subsequent study, Baker (1999) extended her study of this sample of students by explicitly measuring and analyzing teacher-student interactions and relations. Again, it is important to note that all the students and teachers in this study were African Americans. This is noteworthy because some studies have suggested that the teacher's race vis-à-vis that of the student is important in determining the nature and quality of teacher-student relationships established (e.g. Irvine, 1986; see also Section 2.4 below). Therefore, by design, this study controlled for effects of race on the research findings.

The study found that social context of the classroom, even as early as third grade, influences whether a student becomes satisfied with school or not. In particular, the study found that students who were dissatisfied with school sought academic help by as much as three times more than their colleagues who were satisfied with school. However, these students also received twice as many behavioral reprimands than their satisfied colleagues. Obviously, the reprimands are in most cases justified to keep order in the classroom but as these study findings suggest, they may have the unanticipated consequence of alienating the affected children from school. Hence, to some extent, the study confirms the conjecture that a caring and psychologically safe classroom environment enhances school satisfaction.

Based on these findings, Baker reiterated the need for ensuing research to pay attention to psychological and social outcomes in the early years of schooling rather than waiting until later years. Doing so would be expected to provide insights into early intervention strategies to manage and, hopefully reverse students' negative feelings about school.

In support of this line of research Baker, Dilly, Aupperlee & Patil (2003) proposed a framework to be used in studying psychosocial outcomes associated with school practices that lead to increased school satisfaction. This framework emphasized use of a positive psychology approach in which researchers focus on drivers of positive adjustment to school instead of focusing on developmental problem diagnosis. Hence, focus is on 'prevention' rather than 'cure'. They assert that when schools function as psychologically healthy environments for development, they contribute positively to children's adjustment in schools, often measured by school satisfaction.