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# Influence of Administrators Support on Third Grade Student Behavior in Schools

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Walden University
2019

Abstract

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MA, Ottawa, 2011

BS, Ottawa, 2009

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

K-12 Educational Leadership

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## Abstract

Research indicated that teachers' perceptions of administrator support behaviors, behavioral interventions, and students' classroom behaviors have a strong connection to students' academic outcomes. A lack of administrator support practices present challenges to teachers' effectiveness and students' academic and social success. The purpose of this quantitative study was to address the relationships among teachers' perceptions of administrator support, the FAST (Families and Schools Together) behavioral intervention program, and teachers' perceptions of student classroom behavior. Spillane's distributed leadership theory was used as a framework. The data were a subset of archival data from a target population of approximately 200 teachers working at 14 Title I schools in the Southwestern United States. Regression analysis was used to examine responses from a sample of 3rd grade teachers ($n$ = 174). The analysis of the research questions included 25 items derived from the Strengths and Difficulties Questionnaire and showed no statistical significance ($p > .05$) for administrator support and the FAST program in predicting student behavior. Results confirmed prior research that teachers' perceptions of parent communication positively affected teachers' perceptions of student' conduct ($p < .001$) and parent involvement positively affected prosocial behavior ($p < .001$). This information may expand administrator and teacher knowledge of supportive practices and guide future research to examine types of support that affect student behavior, intervention types, and the development of effective practices for school leaders to improve the educational system and positive social change.

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# Chapter 1: Introduction to the Study

The topic of this study is the relationship among third-grade teachers' perceptions of administrator support, the Families and Schools Together (FAST) behavioral intervention program, and teachers' perceptions of student classroom behavior. I conducted this study because according to researchers Hughes, Matt, and O'Reilly (2014), lack of administrator support practices within the school, evidenced by principals, vice principals, or district leadership, and the presence of disruptive student behavior are ranked highly among teachers as a reason for dissatisfaction with teaching service. Additionally, supportive practices have been linked to positive teacher retention, school climate ratings, and academic achievement (Babo & Postma, 2017; Pina, Cabral, & Alves, 2015; Sebastian, Huang, & Allensworth, 2017). In contrast, disruptive student classroom behavior has been connected to negative effects on school safety, academic achievement, juvenile delinquency rates, and school climate (Monahan, Vanderhei, Bechtold, & Cauffman, 2014; Montañez, Berger-Jenkins, Rodriguez, McCord, & Meyer, 2015). Behavioral interventions such as FAST have been widely used in schools to address student behaviors (Cooper, Bumbarger, & Moore, 2015). Researchers have posited that administrator support affects the way teachers interact with students and student outcomes (Dhuey & Smith, 2018).

Administrator support has been identified by researchers as actions or policies implemented by school leaders such as principals, vice principals, or district leadership that affect (a) positive relationships with teachers, (b) teachers' positive school environment, and (c) teachers' autonomy in the classroom (Brezicha, Bergmark, & Mitra,

2015; Day, Gu, & Sammons, 2016; Peterson, 2016; Spillane, 2015). I hypothesized that these areas of support were largely the result of principals' leadership and were only modestly affected by funding or politics. Goodman (1997) identified student behaviors in the Strength and Difficulties Questionnaire (SDQ) as actions in response to physical, social, or emotional situations.

In this study, I focused on archival data collected in Phoenix, Arizona Title 1 public schools by researchers from the University of Wisconsin-Madison for the Social Capital and Children's Development study (Gamoran, 2015). The schools had high Latino student populations and were randomized by researchers into control and experimental groups using the FAST behavior intervention program (Gamoran, 2015). Analyses of these variables among subgroups of United States students in low socioeconomic, high minority, elementary populations have the potential to affect positive social change by extending the knowledge of how administrators and teachers influence student behavior outcomes. The strength of the relationship between administrator support of third-grade teachers and student behavior outcomes is unknown.

In Chapter 1, I include a discussion of the purpose of the research, provide background information, address the nature of the research, and explain the theoretical foundation I chose to guide the study. In this chapter, I will also indicate the research problem, research design, and research questions. I will also present additional research including southwestern and Latino populations, interventions similar to FAST, and national and international data that is appropriate to the themes in this study.

## Background

In this section, I will provide background regarding administrator support of teachers, the behavior of students, and the FAST intervention program. United States school principals reported they have a major influence on teacher evaluation, new hires, and discipline policies (IES National Center for Education Statistics, 2015). In a national study examining the most significant challenges teachers face, 30% of teachers from a survey of 20,157 prekindergarten to 12th grade teachers indicated there was a lack of supportive leadership in their school (Scholastic Inc., 2013). Price and Moolenaar (2015) proposed building relationships with teachers and students as potentially the most influential skill of school administrators and principals for student learning.

Researchers postulated that teachers' relationships with students can influence student behavior (Lee & Bierman, 2015) and that the students' behavior can affect instruction time, a key focus for school administrators (Kiema, 2015). Karaj and Rapti (2013) measured teacher stress, principal interaction, and student behavior in international elementary schools using mixed methods to evaluate a population of over 500 teachers. They found a correlation between teacher stress and student behavior and concluded that a greater focus on teacher support was needed. Pina et al. (2015) used qualitative analysis to examine administrator and teacher relationships internationally in education programs comparable to the United States and reported concerns for school discipline by principals and teachers. Students' behavior can negatively affect the classroom environment and require additional administrator resources to mediate

behaviors, attendance, and other adverse effects (Cardoza & Anderson, 2016; Sullivan, Johnson, Owens, & Conway, 2014).

Spillane's (2012) theory of distributed leadership posited the positive influence of multiple stakeholders, such as principals, teachers, students, and parents, on student outcomes within the school system. Researchers agreed administrators have a direct influence on the success of schools (Babo & Postma, 2017). The FAST intervention engages stakeholders, including administrators, teachers, parents, and students, to encourage positive student behavior (Families and Schools Together, 2018).

The FAST program was developed in 1988 using literature on child development, family stress, and family systems theory in schools by researcher Lynn McDonald (2002). McDonald's publications are cited throughout this paper to further explain the purpose and structure of FAST. Beginning in 1990 in Wisconsin schools as part of a substance abuse prevention initiative, the program has been implemented nationally to encourage positive child behaviors (McDonald, 2002). FAST has been tested in Latino, special education, American Indian, and African American student populations (Families and Schools Together, 2018) and has been accepted as an evidence-based model by the U.S. Department of Education and the office of juvenile justice and delinquency prevention after data from four randomized controlled trials were collected (McDonald, 2002). FAST is also on the national registry of effective prevention programs of the US substance abuse and mental health services administration (SAMHSA, 2018). The program format includes eight 2.5-hour sessions composed of meals, music, communication, collaboration, and play. Each session is led by a parent volunteer, school

teacher or administrator, and FAST trainer. According to the program developer, within each session research based activities are organized and facilitated to build relationships, promote respect, teach parenting skills, and provide play therapy to support student behavior (McDonald, 2002). More information on the FAST program and the use of the intervention in this research is included in Chapter 3.

I focused on administrator support specifically within the FAST intervention, an area not previously studied. By doing so, I addressed a gap in the knowledge and added to the literature. I analyzed archival data to find the teachers' perceptions of the influence of administrator support on students' behavior. The gap in the literature as well as research suggesting teachers are affected by a lack of administrator support and disruptive student behavior indicated this research was needed to further understand the relationship between teachers perceptions of administrative support and student behavior (Lee & Bierman, 2015; Peterson, 2016; Sullivan et al., 2014).

## Problem Statement

For this study, I sought to address the problem of the relationships among administrator support, the FAST school-wide behavioral intervention program, and student classroom behavior. Researchers have posited in multiple studies that teachers who report higher ratings of principal leadership, levels of trust, and engagement are more active in their schools and are likely to continue teaching at the same school (Breaux, 2012; Brezicha et al., 2015; Hughes et al., 2014). The converse is also found in the literature. A deficiency of supportive school leadership negatively influences schools

and students, resulting in insufficient funding, higher student to teacher ratios, and nationwide teacher walkouts among other issues (Lydersen & Brown, 2016).

Administrator support has been the topic of several news headlines. For example, in September 2018, the *New York Times* published the education issue calling the classroom a "battleground." Articles in the issue cite professional development, teaching practices, autonomy, and clear expectations as teacher needs from administrators in the midst of school failures, walk outs, mass shootings, and changing classroom dynamics (Interlandi, 2018; Mahler, 2018; Mosle, 2018; Russakoff, 2018). Teachers have walked out of classrooms in various states. Arizona teachers are facing the largest funding crisis in the nation (Lobosco, 2018). Additionally, teachers are naming the lack of administrator support as a reason for walking out of thousands of classrooms throughout Arizona (McCrory, 2018). Limited leadership capacity, inadequate school and classroom resources, and overcrowding in classrooms, among other things, contributed to the teachers' perceived lack of support (McCrory, 2018).

In 2016, an interview by Tucker with a San Francisco, Title 1 school principal outlined challenges for new teachers. The challenges the principal identified include inadequate support; classroom behavior struggles are discussed as a critical issue in education (Tucker, 2016). Researchers suggest administrators' failure to provide low student to teacher ratios, classroom materials, and quality curriculum influences the behavior of students (Pianta, Downer, & Hamre, 2016). Although issues have been connected to political movements, administrator support can be viewed as a set of

practices that affect relationships with teachers, teachers' environment, and autonomy in the classroom, separate from a political or budget crisis.

Lack of school support can result in student behavior problems in the classroom. These problems pose difficulties for administrators and teachers who must utilize already limited resources to address them as evidenced by the following data. In a survey of 20,157 prekindergarten–12$^{th}$ grade educators 69% of elementary teachers, 64% of middle school teachers, and 53% of high school teachers reported an increase in classroom behavior problems (Scholastic Inc., 2013). School districts across the United States have corroborated these reports indicating an increase in misbehavior (Ford, 2013; Perez Tobias, 2017). Statistics also indicated 18% of teachers find managing the classroom a significant challenge and 40% of teachers found feedback on principal evaluations to be helpful in managing student behavior (Scholastic Inc., 2013). Student behavior is a current issue in many schools, and administrator support may have a positive effect.

In some cases, the occurrence of behavior issues linked to student mental health has been associated with poor attachment to the school and teachers (Schulte-Körne, 2016). Data confirm the prevalence of student behavior and mental health issues in Arizona (Data Resource Center for Child and Adolescent Health, 2017). These behavioral issues manifest as behavior problems in the classroom, and when administrators need to get involved in disciplinary actions, valuable instructional time is taken from other areas (Sanzi, 2018).

Students struggling with behaviors and mental health issues are among the over 225,000 racial/ethnic minority students in Arizona Title I schools compared to 71,000

Caucasian students in 2014–2015 (Annie E. Casey Foundation, 2016). Social and emotional intervention programs such as FAST have been designed to teach relationship and social capital building skills in schools to mediate behavior struggles. Building relationships and social capital among teachers, parents, and students in schools have also been shown to have a positive effect on student behavior (Turley, Gamoran, McCarty, & Fish, 2017). School climate researchers have highlighted building relationships with teachers and students as potentially the most influential skill of school administrators for student learning (Price & Moolenaar, 2015).

Designed in 1988, the FAST intervention program has been implemented in schools across the United States, and researchers have found positive effects on student behavior in several samples as discussed in the background sections above. However, recently FAST researchers surveyed 1,400 school principals, vice principals, and head teachers from K–12 schools throughout the United States and participants reported systemic barriers including the availability of school resources, the capability of conducting student home visits, and difficulty finding staff for family engagement and academic parent-teacher programs (Families and Schools Together, 2017). The survey indicates administrators are still facing barriers and little research is available to describe how the FAST intervention influences teachers' perceptions of administrator support and if administrator support and FAST predict the behavior of students in the classroom.

I used the FAST program for my research because it is a research based widely used intervention and analysis will extend the understanding of the relationship between the variables. I used archival data to examine teachers' perceptions of administrator

support in schools implementing FAST and the control group. Analysis of administrator support, student behavior, and the FAST intervention may inform school districts and the FAST program, to increase administrator support, and to influence student behavior.

To evaluate a meaningful gap in the current literature, I searched academic databases, online journals, publications, and Google Scholar and found a paucity of evidence that focused on the connection between administrator support and student behavior and researchers had not analyzed the FAST program in this way. In this study, I addressed a meaningful knowledge gap in the current research literature of teachers' perceptions of administrator support and student behavior in FAST intervention and control schools.

## Purpose of the study

The purpose of this quantitative quasi-experimental study was to examine the extent of the relationship among third-grade teachers' perceptions of administrator support, the FAST school-wide behavioral intervention program, and teachers' perceptions of student classroom behavior. The independent variables were third-grade teachers' perceptions of administrator support and FAST program intervention compared to the control group. The dependent variable was teachers' perceptions of student behavior. The data was analyzed to assess the relationship among teachers' reports of supportive administrators, teachers' reports of child behavior, and the potential influence of the FAST intervention. The results could indicate if there are differences or issues in supportive practices that enable administrators and staff to affect students positively; and could be used to inform school districts and programs such as FAST.

## Research Questions and Hypotheses

The research questions for this study were:

Research Question 1 (RQ1). To what extent do third-grade teachers' perceptions of administrator support and the FAST intervention group compared to the control group predict teachers' perceptions of student behavior in the classroom?

Null Hypothesis ($H_0$1): Third-grade teachers' perceptions of administrator support and the FAST intervention group compared to the control group does not predict teachers' perceptions of student behavior in the classroom?

Alternative Hypothesis ($H_1$1): Third-grade teachers' perceptions of administrator support and the FAST intervention group compared to the control group does predict teachers' perceptions of student behavior in the classroom?

Research Question 2 (RQ2). To what extent do third-grade teachers' perceptions of administrator support predict the teachers' perceptions of student behavior in the classroom?

Null Hypothesis ($H_0$2): Third-grade teachers' perceptions of administrator support do not predict the teachers' perceptions of student behavior in the classroom

Alternative Hypothesis ($H_1$2): Third-grade teachers' perceptions of administrator support do predict the teachers' perceptions of student behavior in the classroom.

Research Question 3 (RQ3). To what extent does the FAST intervention predict third-grade teachers' perceptions of student behavior in the classroom?

Null Hypothesis ($H_0$3): The FAST intervention does not predict third-grade teachers' perceptions of student behavior in the classroom.

Alternative Hypothesis ($H_1$3): The FAST intervention does predict third-grade teachers' perceptions of student behavior in the classroom.

The FAST intervention was measured as participated (experimental group) or did not participate (control group). Teachers' perceptions of administrator support were measured using a questionnaire regarding administrator support roles with labels including (a) administrator, (b) principal, and (c) school policies that may be implemented by the local principal or district administrator. The Likert scale indicated 1 = strongly disagree, 2 = disagree, 3 = agree, and 4 = strongly agree. The dependent variable was student behavior scores as reported on the SDQ. The SDQ measured student behavior using a 1–3 Likert scale indicating 1 = not true, 2 = somewhat true, and 3 = certainly true. The validity and reliability of the instruments will be discussed in Chapter 3.

## Theoretical Framework for the Study

Spillane's (2005) theory of distributed leadership provided a theoretical framework and aligned with this study, as the hypothesis was that supportive leadership from the administrators will strengthen teacher effectiveness and positively affect student behavior. The origins of distributed leadership can be traced back to, Gibb (1947), one of the first 20th century researchers to discuss leadership characteristics in a way that can now be described as distributed leadership. Researchers have identified three major theoretical propositions in distributed leadership theory: (a) practices are how school leaders accomplish tasks and include routines and followers; (b) leadership is the sum of collaborative, coordinated, and collective interactions among leaders, followers, and their

situation; and (c) leadership is distributed, formally or by default dependent on the situation (Spillane, 2012). These constructs provided a framework for administrator support, student behavior, and offering an intervention in the school. My study used this framework to fill in literature gaps in relationships between administrator and student behavior; completing the cycle within education. In this study, I used data from the implementation of the FAST program, previously designed to measure social capital because Spillane indicates building capital develops relationships among administrators and teachers (2012).

Spillane's theory informed the hypothesis for the study; the independent variables, of teachers' reports of administrator support and FAST program, affects the dependent variable, teacher reports of student behavior. Spillane explicitly discussed leadership with multiple stakeholders, as it is unrealistic for an administrator to be the only leader. Specific to education, distributed leadership reflects the dynamic nature of the school system (Spillane, 2005). I honored the dynamic environment of the school system by including multiple stakeholders such as administrators, teachers, students, and numerous variables to assess support and behavior. Spillane, Halverson, and Diamond (2004), focused on the capabilities and abilities of all stakeholders as leaders within the institution. Distributed leadership encourages leaders to assess the situation and employ practices necessary to create a positive interaction between leaders, followers, and the situation. The public use data for this research collected by Dr. Gamoran (2015) and his team included surveys designed to collect information from teachers about the practices of the administrators within the school. Spillane (2012) proposed that administrators

support teachers by involving them in leadership decisions such as curriculum choices and classroom management policies, both of which are included as components of administrator support in the questionnaire for the study.

The FAST intervention is connected to distributed leadership by sharing similar constructs that foster interactions between leaders and followers and encourage stakeholders such as administrators, teachers, students, and parents to work collaboratively to foster positive student behavior. Distributed leadership supported my research by providing a framework to examine the relationship among the stakeholders; teachers, FAST intervention, and students. McDonald (the FAST developer), Miller, and Sandler (2015), indicated in a study that the FAST program would encourage interactions between stakeholders and could create more opportunities to engage in distributed leadership practices for both formal (administrators) and informal leaders (teachers, parents, students). Through analysis of the administrator support data available, using a distributed leadership lens, the support of teachers by school leadership may encourage teachers to respond more supportively to students and positively impact student behavior. Furthermore, the FAST intervention is focused on building social capital and as social capital increases schools may offer more support to teachers and students and see changes in students' behavior (Tschannen-Moran, 2014). A distributed leadership theory lens will further the study of administrator support of teachers, the relationship to student behavior, and the influence of FAST intervention. More details regarding the application of distributed leadership theory are included in Chapter 2.

## Nature of the Study

I used a quantitative quasi-experimental design for this study. The rationale for using this specific research design was that this design connects to the research questions by addressing whether a treatment variable (administrator support) predicts an outcome variable (student behavior). True experimental design was not feasible due to the limitations of the archival data. Quantitative methods are consistent with previous studies that have used the data to investigate the influence of the FAST intervention (Gamoran, Turley, Turner, & Fish, 2012; Turley et al., 2017).

I used a sample from data collected as a cluster-randomized controlled trial assigned to 14 schools in Phoenix, Arizona (Gamoran, 2015) to conduct a quantitative analysis to find the relationship between third-grade teachers' perceptions of administrator support as reported by third-grade teachers and the FAST program as independent variables, and behavior of students as the dependent variable. This study makes a unique contribution to the literature and educational practices as the teachers' reports of administrator support had not previously been analyzed and may inform relationship building practices for the FAST program and professional development to positively influence student behavior.

The data included approximately 200 teachers of third-grade students, from Phoenix, Arizona Title 1 schools, whose parents participated in the program. I used data collected from schools that did and did not participate in the FAST intervention, a program designed to help stakeholders develop relationships and improve student

behaviors. The schools selected for the study were all Title 1 with similar student populations. I used descriptive statistics and regression analysis to analyze key variables.

The independent variables were FAST intervention group or control and administrator support scores from third-grade teachers. Administrator support was measured using questions on the teacher questionnaire instrument labeled Children, Families, and Schools administered in Year 3. The analysis incorporated fourteen items under questions 11 (items a–f, h, j) and 12 (items a–e, g) of 13 total using a Likert scale. The dependent variable was student behavior scores as reported on the instrument labeled Teacher Questionnaire administered in Year 3. The analysis incorporated the 25 items under questionnaire question 4 (items a–y) derived from the SDQ using a Likert scale.

## Definitions

The following definitions aid the understanding of certain terms related to this study.

*Administrator:* is defined using the teacher questionnaire in this study as a school leader such as principal, vice principal, or district leader.

*Distributed leadership:* is collective interactions among leaders between situations and practice (Spillane, 2012)

*Families and Schools Together (FAST):* "A prevention/early intervention program and a catalyst for positive change in the lives of children and their parents. Built on a strong platform of developmental science, FAST is designed to make a significant, long-lasting impact on child and family behaviors, so parents and kids make better decisions in school and in life" (Families and Schools Together, 2018).

*Perception:* is a belief or understanding a person holds about something.

*Situation:* is the product of the interaction between leaders and followers; discussed as student behaviors in this study (Spillane, 2012).

*Social Capital:* is defined by Gamoran (2015), who collected the original data, as relationships and trust between stakeholders.

*Strengths and Difficulty Questionnaire (SDQ):* an instrument designed to measure students social, emotional, and physical behaviors using a Likert scale (Goodman, 2001).

*Student behavior:* is defined as student actions in response to physical, social, or emotional situations as indicated on the Strengths and Difficulties Questionnaire (Goodman, 1997).

*Support:* is defined by the survey as an action that assists the teacher or student positively (Gamoran, 2015). Support practices included in the present study are (a) administrator deals effectively with pressures from outside the school that affect teaching; (b) administrators behavior is supportive and encouraging; (c) principal lets staff know what is expected of them; (d) academic standards are too low; (e) necessary materials are available; (f) teachers are learning; (g) student misbehavior outside of the classroom interferes with teaching; (h) learning expectations are defined for all students; (i) teachers are generally satisfied with being a teacher at their school; (j) teachers are certain they are making a difference in the lives of children they teach; (k) teachers have control over choosing instructional materials and practices; (l) teachers have control over selecting classroom management strategies; (m) teachers believe students are capable of learning the required materials; (n) teachers are satisfied with their salary.

## Assumptions

The intent of this study was to determine if teachers' administrator support scores influence student behavior scores. First, the assumption made was that the research questions posed in the surveys would sufficiently garner the necessary data. Next drawing from J. W. Creswell and J. D. Creswell (2017), I assumed (a) the participants answered the survey questions truthfully; (b) the inclusion conditions of the sample were suitable and therefore ensure that the respondents were all in need of the interventions offered in the study; and (c) participants had a sincere interest in completing the surveys and interventions and did not have any other intentions. These assumptions were justified by verifying the appropriate sampling and data collection methods, which also confirmed that each participant's personal information, including their responses were kept confidential in the ICSPR database according to the original data collection plan. J. W. Creswell and J. D. Creswell (2017) suggested ensuring participant information is private and secure encourages additional participants, which is evident in the large sample size provided by ICSPR**.** These assumptions represented aspects of the research that are thought to be true but cannot be verified and are essential to the context of the study.

## Scope and Delimitations

The scope of this study was limited to the archival data which included; teachers of third-grade students, male and female, at 14 schools in three school districts during the 2011–2012 school year. The schools represented public inner-city Title 1 elementary schools in Phoenix, Arizona with a high minority population. The boundaries of this research were defined by the population included and excluded, theoretical frameworks

most related to administrator support, and student behavior data that have not been previously examined. Delimitations include the population of a study, variables, statistical analysis and focus of the research within the archival data. For this study, I used distributed leadership theory as a framework to focus on administrator support and student behavior. I will exclude questions on the teacher questionnaire labeled Children, Families, and Schools regarding teacher experience. Questions regarding parent interactions and demographics will be included as controls as it is logical to consider teachers' perceptions of parents may affect their perceptions of student behavior. Question's involving administrator support or student behavior will be included and are further explained in Chapter 3.

## Limitations

One limitation of this study was the use of archival data (historical or ex-post facto) based on a sample of public elementary school third-grade teachers who taught in Phoenix, Arizona for the 2011–2012 school year. For this research, archival data from the Social Capital and Children's development study retrieved from ICSPR was the only data I had access to (Gamoran, 2015). There may have been unknown conditions or factors within the study schools. I have communicated with Dr. Adam Gamoran, who collected the initial data at the University of Wisconsin-Madison and confirmed that institutional review board (IRB) procedures were followed (personal communication, March 14, 2018) as the IRB approval is included in the data package. I also received Walden IRB approval so there was no need to address this limitation.

A threat to internal validity was the convenience sampling of public elementary third-grade teachers at Title 1 schools in Phoenix, Arizona that were used. An external threat to validity; the generalization of the findings may be decreased because the sample is limited to participants in a single state. J. W. Creswell and J. D. Creswell (2017) suggested addressing these limitations by including only participants who meet the sampling criteria; teaching at a FAST school and have a student who participated in the FAST program in their classroom assured by assigning identifiers to questionnaires to connect teachers and students, and conducting additional experiments in other settings in the future.

I have no previous connection with the FAST program, primary investigator, or any school that utilizes FAST. I chose the data set because FAST is a research based widely used intervention and the primary investigators included variables of administrator support and student behavior in the data collection. FAST has been recognized as an evidence-based model by the U.S. Department of Education and the office of juvenile justice and delinquency prevention after data from four randomized controlled trials was collected as indicated by the program developer (McDonald, 2002). FAST is also on the national registry of effective prevention programs of the US substance abuse and mental health services administration (SAMHSA, 2018). FAST is a non-profit organization, used nationwide in schools and family services. The intervention schools in the present study are identified as schools that had previously engaged with the FAST program. The schools selected for the study were all Title 1 with similar student

populations, which suggests the schools had similar access to the FAST program as FAST was provided for free.

## Significance

The problem of the relationships among administrator support, the FAST school-wide behavioral intervention program, and student classroom behavior is significant to the professional field of K–12 Leadership because lack of administrator support practices continues to present challenges to teachers and students (Hughes et al., 2014). These issues go beyond funding and political hurdles in education that have been prevalent in the media. This study focused on practices of administrator support including actions that affect (a) relationships with teachers, (b) teachers' school environment, and (c) teachers' autonomy in the classroom. There is evidence that the problem is significant to the professional field as studies of administrator behaviors and teacher perceptions have indicated a strong connection to students outcomes (Dhuey & Smith, 2018; O'Brennan, Bradshaw, & Furlong, 2014; Pas & Bradshaw, 2014; Pina et al., 2015). According to independent FAST researchers, the intervention program reduces student behavior problems, increases parental engagement within the school, and promotes positive interactions between families and stakeholders (Gamoran, 2015). FAST (2018) reports a 30% improvement in student behavior by students participating in FAST. Researchers suggest using a distributive leadership perspective and engaging administrators' supportive behaviors could further improve student behavior (Spillane, 2015).

Findings from this study will add to the research on supportive school leadership practices and increase knowledge about how administrator support of teachers influence

students' behavior. Schools function with the input of students, parents, teachers, and administrators (C. Day et al., 2016). Earlier studies have analyzed the interactions between parents, teachers, and students (Fiel, Haskins, & Turley, 2013; Gamoran, 2015; Turley et al., 2017). My study is significant because it fills a gap in the literature and provides a unique contribution by including administrator practices and determining if a relationship exists between teacher reports administrator support, the FAST program, and student behavior as it relates to Spillane's theory of distributed leadership. In discussion with Dr. Gamoran (personal communication, March 14, 2018), who collected the archival data, and after a review of the literature, I have confirmed the data collected from the teachers regarding administrator support and Year 3 student behavior have not been analyzed using the design of this study. The study could advance stakeholder practice within the school system by encouraging additional components to the FAST curriculum to foster administrator support practices. Identifying key practices could aide in developing the school, district, and state administrator evaluation and accountability policies.

Walden University defines social change as, "A deliberate process of creating and applying ideas, strategies, and actions to promote the worth, dignity, and development of individuals, communities, organizations, institutions, cultures, and societies" ("Social Change", 2017). The potential implications for positive social change consistent with the analysis of interactions between teachers' perceptions of administrator support and student behavior within the FAST intervention in a Title 1 population include increasing knowledge of effective practices for school leaders to improve the human and social

conditions for all stakeholders within the educational system. Positive social change such as an increase in administrators' understanding of the influence of supportive behaviors among administrators, teachers, and students is a potential outcome. Additional focus on supportive leadership practices within FAST, future principal leadership, and professional development programs within Arizona Title 1 schools could positively influence the behaviors of students by addressing classroom behavior, delinquency, and mental health concerns (Mowen & Brent, 2016; Pina et al., 2015).

## Summary

Chapter 1 included an introduction to the study, problem statement, and purpose for the research. The problem statement indicated that when schools are lacking administrator support that students' behavior is negatively affected. A research gap within archival data, collected during implementation of the FAST student behavior intervention, was identified as a lack of analysis of surveys of teachers' perceptions of administrator support in relation to students' behavior. In this target population, the relationship between teachers' perceptions of administrator support and students' behavior had not previously been clarified. The variables of administrator support, student behavior, and FAST intervention were examined using the theory of distributed leadership. This section established the significance of the study as the potential for positive social change within administrator support practices and the success of students within the school. This chapter also included the research questions, null hypotheses, and methodology. Chapter 2 includes a review of Spillane's theory of distributed leadership,

analysis of literature related to administrator support, student behavior, and school intervention programs.

# Chapter 2: Literature Review

## Introduction

In this study, I researched the problem of the relationships among administrator support, the FAST school-wide behavioral intervention program, and student classroom behavior. The purpose of this quantitative quasi-experimental study was to examine the extent of the relationship among third-grade teachers' perceptions of administrator support, the FAST school-wide behavioral intervention program, and teachers' perceptions of student classroom behavior. Current literature that established the relevance of the problem indicated that teachers who reported higher ratings of principal leadership, levels of trust, and engagement were more active in their schools and likely to continue teaching at the same school (Breaux, 2012; Brezicha et al., 2015; Hughes et al., 2014). School administrators are the most influential leaders within a school and affect both teachers and students (Hall, Childs-Bowen, Cunningham-Morris, Pajardo, & Simeral, 2016).

The literature review includes an in-depth analysis of current research related to the problem of administrator support. The focus of this chapter is to provide an overview of previous research focusing on the main themes of (a) distributed leadership theory, (b) administrator support practices, (c) teachers' influence on situations of student behavior, and (d) school interventions. The chapter concludes with a summary of critical points presented here.

## Literature Search Strategy

I used various search strategies to identify research from several different sources. A primary reference was the online Walden University Library where I utilized electronic databases such as Educational Resource Information Center (ERIC), ProQuest Central, Taylor and Francis, Dissertations and Theses @ Walden, Educational Research Complete, Education Source, PsychINFO, Business Source Complete, and SAGE journals. The key search terms I entered in various combinations in all databases included: *distributed leadership, student behavior, administrator support, principal support, Strengths and Difficulties Questionnaire (SDQ), third-grade, elementary,* and *Families and Schools Together (FAST).*

The earliest mentions of distributed leadership related to education were found in literature from 1947 and are included to support the theoretical framework. I included peer-reviewed studies from 2013–2018 to support the constructs of the research. Because FAST is a school-based behavior and social capital intervention program, literature on school intervention programs was included in the search. I researched student behavior and administrator support because each is a component of the FAST intervention and the archival data. Journal articles, conference papers, national, statewide, and regional research data were identified through the Google Scholar, Google, the Arizona Department of Education, and published survey and demographic data through National Center for Education Statistics and the U.S. Department of Education. Printed books, articles, and conference literature provided additional references from which to build an exhaustive literature review.

## Theoretical Foundation

The theoretical framework for this study was Spillane's (2012) theory of distributed leadership. Defined as collective interactions among leaders between situations and practice, distributed leadership is a leadership framework for school improvement (Hairon & Goh, 2015). According to Hairon and Goh (2015), distributed leadership has taken the lead in education as an effective process for positively affecting the school environment, climate, and teaching practices. Spillane's distributed leadership model served as the basis for identifying the constructs for practices of administrator support that influenced the FAST intervention and student's behavior.

### Origin of Distributed Leadership Theory

The origins of distributed leadership can be traced back to, Gibb (1947), one of the first 20th century researchers to discuss leadership characteristics in a way that can now be described as distributed leadership. However, Oduro suggests the notion of distributed leadership has been documented as far back as 1250 BC as a process to achieve organizational goals between Jethro and Moses during Biblical times and is documented in Exodus. The concept remained dormant for millennia until it was explicitly theorized by researchers such as Gibb in the mid-1900s (Oduro, 2004). Gibb recognized that leadership is a task of a group as a whole and functional relationships between the members effectively mediate situations. Gibb's research laid a foundation for other theorists, such as Spillane (2006), to advance the notion of distributed leadership.

Spillane's theory (2012) developed in his book, *Distributed Leadership,* builds on the foundational concepts proposed by Gibb's (1947) research. The concepts included

an emphasis on practice, situation, leadership as an organizational process, social interaction, and followers. These concepts have been used to form the major theoretical propositions for Spillane's theory and are discussed further in the theoretical hypothesis section.

Spillane also incorporated ideas of evaluation, collaboration, structure, and organization of processes from other recognized theorists. Gronn (2002) contributed by using leadership as a unit of analysis for evaluating leaders within business and educational systems. Gronn identified spontaneous collaboration as a critical component and encouraged researchers to work towards a method that recognizes multiple leaders. Macbeath (2005) elaborated on the structure of distributed leadership and proposed that distribution would be formal, pragmatic, cultural, incremental, opportunistic and strategic. Northouse (2012) concluded distributed leadership is essential to streamlining the organization of leadership processes. He suggested distributed leadership would lead to (a) involving more leaders; (b) positive improvements in task accomplishment, relationships, and school environment; and (c) improving stakeholder performance. Spillane's theory, developed comparably to constructs mentioned previously, provided the framework for this study as his work lends itself to an educational setting and applies to the administrator and FAST variables presented.

**Theoretical Hypothesis and Assumptions**

Spillane (2012) viewed leadership as a set of organizational functions. Researchers have identified three major theoretical propositions in distributed leadership theory: (a) practices are how school leaders accomplish tasks and include routines and

followers; (b) leadership is the sum of collaborative, coordinated, and collective interactions among leaders, followers, and their situation; and (c) leadership is distributed, formally or by default dependent on the situation (Hairon & Goh, 2015). These constructs provide a framework for administrator support, student behavior, and offering an intervention in the school. I used this framework to add to the literature about relationships between administrator and student behavior and complete the cycle within education. Within the study schools for my research, the organizational functions are: (a) supportive practices of principals as perceived by teachers, (b) interactions with the FAST intervention, and (c) student behavior situations. In summary, the theoretical propositions indicated practices, interactions, and situational awareness are essential for providing administrator support for teachers and students.

**Previous use of Distributed Leadership Theory**

Analysis of multiple quantitative studies that applied the theory of distributed leadership in educational settings showed a consistent theme of positive relationships with stakeholders, resulting in a greater understanding of support, and, in turn, resulting in positive behavioral outcomes for students (Larson & Smith, 2013; Price & Moolenaar, 2015). However, researchers have identified interactions between distributed leadership practices in the classroom and student achievement but have not connected the teachers' perceptions of administrator support to classroom behavior situations (Larson & Smith, 2013). In an intervention similar to FAST, the parenting program Love and Logic—designed for implementation in schools and at home—researchers cited distributed leadership as effective for improving student behavior (Fay, 2015). Lakomski, Eacott,

and Evers (2016), authors of the book *Questioning Leadership*, agreed that expecting one administrator or school principal to enact change was unrealistic and equated to "turning lead to gold" (p. 2). Distributed leadership offers a way to involve all stakeholders as leaders and increase the capital within the school to influence student success. The principal's role is then to support these relationships and engage with stakeholders collectively, collaboratively, and intuitively to achieve common goals.

Furthermore, Day, Gu, and Sammons (2013) concluded distributed leadership is an effective strategy in education and business worldwide. Their collection of international studies found distributed leadership theory useful in the UAE, England, and Australia for evaluating school leaders, engaging stakeholders and developing relationships, and producing student achievement outcomes. The scholars used a mixed methods study to survey principals and agreed that distributed leadership strategies helped engage stakeholders and encouraged teachers to take on leadership roles.

Spillane and Shirrell (2017) previously discovered utilizing distributed leadership practices engages stakeholders and fosters social interactions between teachers and administrators. They found that proximity between educators is related to the occurrence of social interaction. For example, a teacher whose classroom is near the principal's office is more likely to heed advice or have interactions than a teacher whose classroom is further away according to Spillane's study. The researchers posited that greater positive interactions would build relationships between stakeholders.

**Rationale for Using Distributed Leadership Theory**

I selected Spillane's (2005) theory of distributed leadership as the theoretical framework for this study because he theorized that supportive leadership from the administrators would strengthen teachers and, in turn, positively affect student behavior. Spillane's research provided a framework for the present study by demonstrating that supportive principals engage with teachers by offering meaningful professional development, offering encouragement, supplying adequate resources, and fostering autonomy in the development of classroom teaching strategies and behavior management policies. Spillane theorized that teachers with these supports would have a positive influence on the behavior of students in the classroom.

**Distributed Leadership Relation to Study and Research Questions**

Distributed leadership relates to the present study because Spillane's (2012) research demonstrates that supportive principal practices ensure teachers learn through meaningful professional development, feel supported, have adequate resources, have input in classroom teaching strategies and behavior management, and encourage and facilitate interventions such as FAST. Teachers with these supports have a positive influence on the behavior of students in classroom situations (Spillane, 2012). In this study, I used data from the implementation of the FAST program, previously designed to measure social capital because Spillane indicated building capital develops relationships among administrators and teachers.

In this study, I applied the theory of distributed leadership to the variables: (a) administrator support practices, (b) student behavior situations, and (c) FAST

intervention practices since distributed leadership constructs focus on practices and situations in learning environments.

The following research questions sought to relate to and build upon the existing theory:

RQ1. To what extent do third-grade teachers' perceptions of administrator support and the FAST intervention group compared to the control group predict teachers' perceptions of student behavior in the classroom?

$H_0$1: Third-grade teachers' perceptions of administrator support and the FAST intervention group compared to the control group does not predict teachers' perceptions of student behavior in the classroom?

$H_1$1: Third-grade teachers' perceptions of administrator support and the FAST intervention group compared to the control group does predict teachers' perceptions of student behavior in the classroom?

RQ2. To what extent do third-grade teachers' perceptions of administrator support predict the teachers' perceptions of student behavior in the classroom?

$H_0$2: Third-grade teachers' perceptions of administrator support do not predict the teachers' perceptions of student behavior in the classroom

$H_1$2: Third-grade teachers' perceptions of administrator support do predict the teachers' perceptions of student behavior in the classroom.

RQ3. To what extent does the FAST intervention predict third-grade teachers' perceptions of student behavior in the classroom?

$H_0$3: The FAST intervention does not predict third-grade teachers' perceptions of student behavior in the classroom.

$H_1$3: The FAST intervention does predict third-grade teachers' perceptions of student behavior in the classroom.

The research questions build upon existing constructs of distributed leadership theory by developing a stronger connection between practices of administrator support and student behavioral situations. In this study, I sought to understand the relationships between perceptions of administrator support practices and student behavior situations measured through a distributed leadership lens within the FAST intervention program. The archival data included information on teachers' perceptions of administrator support practices and students' behavior in physical, emotional, and social situations as well as data indicating how often students interacted with the FAST intervention program. The research questions related to distributed leadership theory, challenged traditional leadership frameworks, and fit into intervention programs such as FAST by illustrating practices that involved multiple leaders and focused on situations specific to the current stakeholders. Spillane's distributed leadership theory, when applied to practices of administrator support, indicated that teachers' perceptions could influence situations of students' behavior.

## Literature Review Related to Key Variables

I addressed the problem in the present study by analyzing previously collected data of teachers' perceptions of administrator support and the relationship to student behavior situations (Gamoran, 2015). The following five sections include studies related to (a) the constructs of leadership, child behavior, and school intervention programs; (b) studies related to approaches of the problem of administrator support; (c) rationale for

selection of variables; (d) synthesis of studies related to variables; and (e) synthesis of studies related to research questions.

**Scope of Study**

In this section, I will describe literature consistent with the scope of the study and quantitative methodology related to the key constructs. The following constructs represent the foundation for this research: leadership, child behavior, and behavior interventions.

**Leadership.** Theories of leadership have been studied extensively, and scholars have long argued which is the most effective but agree that outcomes for leadership should be relevant to the organization being studied (Day, Fleenor, Atwater, Sturm, & Mckee, 2014). Day et al. analyzed 25 years of leadership research and found themes of skills, personality, self-development, interpersonal social mechanisms, and authentic leadership. The researchers also suggested that figuring out how to measure change has made it more feasible for researchers to measure leadership and that the field needs to continue developing methods of more clearly measuring leadership and add to the literature.

Likewise, Shatzer, Caldarella, Hallam, and Brown (2014) measured transformational and instructional leadership in a quantitative study of 540 teachers. They found that leadership effects student achievement (Shatzer et al., 2014). They are among the many researchers who have analyzed hierarchal theories of leadership and found effects on student achievement.

Bush and Glover (2014), contrary to the numerous leadership theories available, considered the significance of school leadership in an analysis of literature and agreed hierarchal models may be less effective than distributed or collective models and indicating a gap in findings on the outcomes of leadership in schools. Raelin (2016) agreed and proposed hierarchal frameworks as an archaic model for success. Referring to the new model as “collective” leadership the ideas are similar to distributed leadership in that Raelin suggests by assigning one leader the capacity of the organization is limited. The researcher argues rather than leadership being the result of multiple people interacting to solve a problem; stakeholders are expected to take ownership of their interactions with people and problems (Raelin, 2016). An example might be that a teacher facing a situation of students misbehaving develops a plan with the students to improve the interactions instead of involving the assistant principal.

Kellar and Slayton (2016) recognized a gap in the literature on how principals' leadership practices are shaped by their conditions, extended the research, and challenged the assumption that a "good" principal can be brought into a struggling school and create positive school-wide change. The researchers posited that the school environment affects the leadership of the administrator and that more research is needed to examine the influence. Researchers used a multi-case study in two high schools to examine (a) cultural norms and values, (b) administrator meetings for professional development, leadership, and day-to-day activities, and (c) collection of documents for professional development, school policies, and other documents. Kellar and Slayton (2016), concluded

principal training programs do not adequately address individual thoughts or beliefs that may be obstacles to student success and that leaders are underprepared.

In a meta-analysis of 109 quantitative studies, Boyce and Bowers (2018) synthesized the literature and concluded the concepts of leadership have evolved. The major themes were principal leadership and influence, teacher autonomy and influence, adult development, and school climate. The most researched areas were teacher satisfaction, retention, and commitment. Leadership practices in relation to teachers' perceptions of administrator support and student outcomes are further discussed in the review of variables and research questions for this study.

**Child Behavior.** Within the scope of this study child behavior is presented as a topic of interest in the literature. Child behavior can affect students well-being and academic achievement in schools (Muratori et al., 2016). Dufur, Hoffmann, Braudt, Parcel, and Spence (2015) defined behaviors as delinquencies such as fighting, drug use, and truancy in an analysis of students and administrators for grades 7–12 collected from National Longitudinal Study data. Data indicated high numbers of disruptive student behaviors often resulting in suspensions and researchers posited that suspensions increase students risk of drop out, delinquency, and drug use (Dufur et al., 2015). Similarly, Vaughn, Salas-Wright, DeLisi, and Maynard (2014) used a sample of 18,614 and findings showed 4.7% of students had severe behaviors categorized as intensive external behaviors, lower academic achievement, and less parental involvement. The researchers suggested a small percentage of students cause the majority of disruptive and argued extreme behaviors might be genetic.

Mowen and Brent (2016), concerned with schools reactions to student behavior, examined suspensions and the connection to arrests and added to the literature by analyzing National Longitudinal Survey of Youth data of 8,984 students ages 12–16 using a hierarchical generalized linear model. Their results indicated a 143% increase in the chances of being arrested as students rose on the delinquency scale and a 239% increase in arrests after students drop out. Each time a child is suspended the odds of being arrested increase and researchers hypothesize a connection to potential delinquency with decreased student engagement and lower academic achievement (Mowen & Brent, 2016).

Valois, Zullig, and Revels (2017) examined the relationship to behaviors and student feelings of self-efficacy by using data from the U.S. Centers for Disease Control and Prevention Youth Risk Behavior Survey of 3,836 public high school students in South Carolina; posed as a construct within student engagement. Participants' reports of carrying a weapon to school and/ being threatened or injured with a weapon at school were significantly related to reduced emotional self-efficacy. Hemphill, Plenty, Herrenkohl, Toumbourou, and Catalano (2014) concluded behaviors needed to be addressed by examining both the student and school factors in an analysis of 5,769 students behaviors in Grades 5, 7, and 9 in Washington state and Australia collected from International Youth Development Study data.

Scholars have studied disruptive classroom behaviors, analyzed effects of discipline, and questioned factors causing behaviors including economics, school climate, and self-efficacy, but other researchers have argued behaviors are not caused by external

factors and are genetic (Vaughn et al., 2014). Child behavior studies are foundational for the scope of this literature review as data supports the notion that additional research is needed to find out how schools are affecting student behaviors. In the review of variables and research questions for this study literature furthering the connection to elementary students' behavior in the classroom is included.

**Behavior Interventions.** Researchers who have analyzed school-wide intervention programs illustrate why interventions are important to schools and how they can affect academics, attendance, and behavioral outcomes for students. Barnes, Smith, and Miller (2014) examined the research of cognitive- behavioral interventions (CBIs) in reducing or preventing child aggression by compiling a meta-analysis of 25 studies. Researchers compared interventions that used school personnel and those that used study employees and programs implemented in small groups and universally. Findings indicated effect size was greater when implementation methods were school-wide or universal $F(1,61) = 4.84$, $p = .032$.

Likewise, Childs, Kincaid, George, and Gage (2016) evaluated the relationship between School-Wide Positive Behavior Intervention and Supports (SWPBIS) and student discipline outcomes using data from 1,122 Florida schools. Within a longitudinal study, Childs et al. used the benchmarks of quality instruments, a validated instrument for the SWPBIS, and school level behavioral outcomes to measure the relationship between school quality and student behavior. The researchers found schools with higher benchmarks of quality have lower amounts of discipline. However, the researchers noted a significant correlation between implementation or lack of intervention implementation

and the classroom and suggested greater support is needed for teachers to implement and achieve a high level fully. Similarly, Freeman et al. (2016) measured the relationship between school-wide interventions, academic, and attendance outcomes in a quasi-experimental study of a larger sample of 883 high schools across 37 states compared to a control group of middle schools. The researchers' descriptive analysis found similar results indicating behavior interventions had a significant positive effect on student attendance rates and less disciplinary referrals in schools implementing intervention programs with fidelity.

A larger meta-analysis of research by Taylor, Oberle, Durlak, and Weissberg (2017) examined 97, 406 students K–2 grade participating in 82 interventions. They confirmed that schools and students that participate in school-based social and emotional learning interventions serving within the United States and internationally report greater social-emotional skills, attitudes, and indicators of well-being than the control group. These researchers' studies were foundational for the scope of this study as the findings demonstrate the potential for a relationship between school support and elementary students' behaviors.

**Previous Approaches to the Problem of Administrator Support and Behavior**

Building upon the studies within the broader scope of the research, this section will describe ways that researchers have previously approached the problems of leadership and student behavior in schools. Multiple leadership theories, behavior theories, and varied research designs will be analyzed. Strengths and weakness of different approaches will also be addressed.

Malloy et al. (2015) examined shared decision making theories in studies of teachers' relationships with stakeholders within the constructs of school climate and implementation of a school-wide intervention. Participants were largely minority, low socioeconomic status, in inner city schools. In contrast to the FAST intervention, Positive Action, a social-emotional character development intervention was implemented over ten weeks by teachers within the classroom. Researchers found teachers who felt more supported by administrators reported more positive feelings toward the program and were more likely to utilize materials but did not analyze the connection to administrators further.

Administrator support was addressed by Pina et al. (2015) in a mixed methods study of the relationship between administrators and student outcomes in Portuguese high school students. Portuguese schools have transitioned to an organization that is similar to the U.S. in the last ten years. The study used a longitudinal framework over four years and a sample of nearly 600 students. Using the theoretical framework of Transformational Leadership theory, the researchers cited shared decision making as a common strategy for engaging teachers, similar to strategies in distributed leadership. The researchers surveyed and interviewed principals, teachers, and students but the teacher data were limited to questions regarding the principal, and student outcomes were measured using student reports. The authors found that principal leadership affected school climate and collaboration between the principal and teachers, but that student discipline remained a concern among all stakeholders.

Principals were also surveyed using a sample of 672 principals and 11, 323 teachers in countries in the Asia-Pacific region (Ham, Duyar, & Gumus, 2015). This large-scale study is one of few recent works that has examined teachers' perceptions and principals, similar to the present study. Researchers used instructional leadership theory and the Teaching and Learning international survey to measure the effects of ratings of principal instructional leadership on teachers' self-efficacy and revealed a connection. Ham et al. (2015) research suggested further study of principal-teacher interactions, such as in my study of administrator support, can build relationships, trust, and increase efficiency within the school. The scholars encouraged continued research of additional areas of leadership; it can be inferred that administrator support should be included.

In conclusion, the researchers' previous approaches to the problem of administrator support and behavior have identified themes of shared decision making theory, transformational leadership theory, and instructional leadership theory, which are constructed similarly to distributed leadership (Ham et al., 2015; Malloy et al., 2015; Pina et al., 2015). The scholars indicated that school climate, stakeholder collaboration, and teacher self-efficacy had been addressed as problems of administrator support. However, the weakness in the approach is that researchers have not analyzed perceptions of administrator support in conjunction with student behavior rather each variable has been analyzed independently (McCord, 2013). A review of previous approaches to the problem suggests administrator support within schools, and student behavior is a prevalent concern among schools worldwide (Sullivan et al., 2014).

**Rationale**

After reviewing the foundational literature on leadership, child behavior, intervention programs; and how researchers have previously addressed problems of administrator support and student behavior, the evidence reported in previous sections suggested it is logical to hypothesize a connection between support of administrators and student support, but there was limited research available. Comparable to theories of shared decision making, transformational leadership, and instructional leadership previously used to analyze constructs of the present study, distributed leadership is a rational framework because it nurtures behavioral needs of students by supporting students' physical wellness, emotional wellness, and social behavior. Gamoran (2015) collected the archival data, for the present study, by administering the SDQ. The SDQ measures three major areas of development for children; social, emotional, and physical behaviors (Goodman, 2018). The literature review includes research that is related to the variables and measured these covariates. Within the scope of the study, a review and synthesis of the literature justifies the variables; administrator support, student behavior, and school interventions and consistently indicates the importance of each to the success of schools (Barghaus et al., 2017; Berry & Farris-Berg, 2016). Fuller and Hollingworth's (2014) examination of the literature on three common approaches to measure principal effectiveness, including student test scores, school effectiveness, and school improvement, concluded additional research is needed to develop more effective rubrics for principal evaluation.

Additional research is included below to justify the rationale for the selection of the variables. The dependent variable will be student behavior. The independent variables

will be administrator support and the FAST intervention. The following sections will also review and synthesize studies related to the key variables and describe what is known and what remains to be studied. This section will include studies related to the methods of this research, specifically the use of historical data and questionnaires.

**Student Behavior**

The dependent variable for the study was student behavior. Many researchers agree that classroom teachers have the most significant effect on student behavior (Gage, MacSuga-Gage, Scott, & Hirn, 2018; Glapa et al., 2018). Student behavior can affect the well-being and academic achievement of students in schools (Muratori et al., 2016). Dufur et al. (2015) analyzed National Longitudinal Study (NLS) data that assessed students and administrators for grades 7–12 but did not include teachers. A limitation could be that student data were collected from student responses. The NLS study defined behaviors as delinquencies such as fighting, drug use, and truancy, unlike the present study that focuses on more social behaviors. In the NLS high numbers of delinquency were reported and students relationships with teachers varied (Dufur et al., 2015). Disruptive student behaviors can be identified and measured.

The present study used the SDQ to measure students' behaviors. The SDQ is a 25 item behavioral screening questionnaire used internationally to evaluate student behavior in five categories: (a) emotional symptoms, (b) conduct problems, (c) hyperactivity/inattention, (d) peer relationship, and (e) prosocial behaviors (Goodman, 2018). Specific behaviors measured on the SDQ are included in Chapter 3. Consistent with the research methodology in the present study, studies that have measured behavior

variables using the SDQ have been included, and additional measures have been included for contrast. The SDQ has been used in similar studies internationally several times, but limited literature was found for similar studies in the United States (Leijten, Raaijmakers, Castro, Ban, & Matthys, 2017; Muratori et al., 2016; Poulou, 2017). From the studies represented, researchers were able to glean data demonstrating students' social, emotional, and physical behavior in relationship to the classroom and home environments. The SDQ has been used in other populations and scholars found relationships between family interventions and student outcomes (Turley et al., 2017).

In one of the largest studies in the United States using the SDQ instrument, researchers analyzed archived data results from 1,175 prekindergarten and Grade 1 students in low-income rural areas using a pre-and post-experimental design (Broekhuizen, Mokrova, Burchinal, & Garrett-Peters, 2016). Scholars studied the emotional and organizational quality of the classroom compared to the behaviors of Grade 1 students. Researchers suggest students often transition from high quality preschool programs into lower quality neighborhood elementary kinder programs. Program settings two years before and two years after entering kindergarten were studied. The researchers included the variable instructional support indicating the importance of school support to student behaviors. The instructional support variable was dichotomized. A confirmatory factor analysis, the two-factor model, and standardized regression coefficients were presented. The analysis found no significant link between instructional classroom quality and children's social skills in 1st grade. However, student behavior in early childhood education is affected by the classroom teacher, and teachers who have a

better understanding of child development may rate students behaviors differently (Broekhuizen et al., 2016). Contrary to the present study Broekhuizen et al. (2016) included only the parents' reports of behavior. Including teachers' reports would increase the validity of the test. The results support the connections between classroom teacher and behavior.

Researchers have used other tests to measure similar variables and often included academic achievement values. Barghaus et al. (2017) used factorial analysis to examine the effectiveness of the Problems in Classroom Engagement Scale (PCES). The PCES was used to address the issue of student behavior. Researchers found a relationship between students' academic and behavioral outcomes, suggesting the PCES could be an effective measure for district stakeholders (Barghaus et al., 2017).

Taking a different approach, De Laet et al. (2016) suggest student behavior is independent of the school setting and a result of biology. In a quantitative study, the researchers examined relationships between teachers and student behaviors. The longitudinal data were collected in a three-year period from over 1,100 male adolescents and their parents. Adolescence is similar to early childhood as a period of significant developmental importance. Researchers used a moderation analysis to find out whether genetic profiles affected the variables. Findings by the researchers suggested that behavior problems increased when students were dissatisfied with their teachers and that genetic moderation existed for engagement but not rule breaking, indicating brain levels could be at play encouraging students to be active in the class but were not a factor for rule breaking. However, researchers also found that students who had greater problems,

in general, were more dissatisfied with their teachers. Yet, if genetics were dominant, it is likely that no amount of intervention would affect student behavior.

In sum, the results presented by researchers from several studies discussed in previous sections indicate that student behavior affects student outcomes and is a concern for schools. Areas that remain to be studied include the influence of specific areas of administrator support in K–12 education and the connections to behavioral outcomes. Administrator support is another component of the education system that has scarcely been analyzed in relation to student behavior.

**Administrator Support**

For this research, administrator support was an independent variable measured using Likert scale scores from a survey completed by teachers. Administrator support within the school system can be measured from high level state leaders to district board leaders, and school principals (D. E. Lee & Eadens, 2014). Similarly, researchers included factors of (a) district administrator policies, (b) school resources and materials availability, and (c) teacher retention to define and analyze administrator support in a national study of 2060 special education teachers perceptions of support and team efficacy (Conley & You, 2017). In a qualitative investigation of behavior intervention programs, researchers referred to administrator support as the practices that allowed teachers time for training and team meetings and indicated the biggest effect is positive relationships with teachers (Yeung et al., 2016). Spillane and Shirrell (2017) described administrator support as the building of relationships and organizational structure between stakeholders.

Further literature surrounding concepts of teachers' perceptions of administrator support are synthesized as related to the present study survey instrument. The researchers collected data from teachers regarding the following items of administrator support: (a) teacher autonomy, (b) physical classroom materials, (c) professional development, and (d) relationships with stakeholders (Gamoran, 2015). Items measured are listed in Chapter 1 and 3. Few quantitative studies were found analyzing administrator support. Additional methodologies have been considered to inform this research.

Sebastian et al. (2017) examined connections between administrator support and high school student achievement within the Chicago Public School System using qualitative analysis. The scholars utilized the Essential Supports Framework and found administrators have both a direct effect on students achievement and an indirect effect through teachers (Sebastian et al., 2017). Sun and Leithwood (2015) viewed administrator support through the lens of transformative leadership to study students' academic achievement. The researchers studied the effects of cultivating teacher behaviors in the classroom to foster academic achievement and leadership characteristics to foster teacher growth. Teachers emotions could be similarly categorized by perceptions in many ways. The researchers posited that leadership practices could influence teachers and affect students.

More instruments and frameworks have been used to analyze administrator support in studies of teacher retention and job satisfaction including the Early Childhood Work Environment Survey (ECWES) and Competing Values Framework (CVF), qualitative interviews, organizational skills theory, social-support framework, and

expectancy-value theory (Battle & Looney, 2014; Russell, Williams, & Gleason-Gomez, 2010; Song & Alpaslan, 2015). Within the studies, indicators of principal support were discussed as levels of teacher autonomy, administrator relationships with the teacher, proximity to principal, materials, and school environment. Among the literature principal support was found to be a key factor in teachers happiness and retention (Battle & Looney, 2014; Russell et al., 2010; Song & Alpaslan, 2015).

Additionally, Lee and Eadens (2014) included training issues, reform, self-evaluation, board leadership, and training needs in their analyses. Scholars findings indicate that the school boards had not been evaluated for success and they developed a study to measure school board effectiveness. Respondent's perceptions of the meetings using the School Board Video Project; a ten-question survey measured on a five-point Likert scale, and MANOVA analysis to study school leader collegiality, success, and connectedness among leaders were measured. The researchers concluded that more training is necessary for low performing districts to increase effectiveness. Researchers found significant differences between low, medium, and high performing board meetings. This means that the lack of administrator support extends outside of the school into the district. The scholars advised that improving school board effectiveness would also ultimately benefit students and implicated the need to advance research regarding how administrators within the school effectively support students and additional training to meet the needs of administrators.

McIntosh, Kelm, and Canizal Delabra (2016) discussed administrator support as crucial to practices in schools regarding adopting, implementing, and sustaining behavior

interventions. The researchers analyzed extensive qualitative data collected from ten elementary school administrators in school districts across the United States. The scholars' findings indicated categories of helping, hindering, and wish list regarding implementing positive behavior intervention programs. Within the categories, administrators reported learning from others as the most helpful, disagreement with intervention philosophy as the biggest hindrance, and a desire to learn about the intervention program earlier as the wish list. The researchers concluded that administrator support is a variable in the success of school intervention programs. The following sections discuss additional studies analyzing behavior interventions as related to the variables in the present study.

In sum, the current literature suggests administrator support has been viewed through the lens of academic achievement, teacher retention, school board and district influence, and the implementation of interventions. Scholars have suggested varying degrees of influence. Alternatively, researchers Ballou, Podgursky, and Ebert argued administrator quality had little effect on student success and Clark, Martorell, and Rockoff found no correlation between principals and student achievement (as cited in Dhuey & Smith, 2018). Further research is needed.

**Families and Schools Together**

The FAST intervention was an independent variable in this study and the relationship between student participation, district third-grade teacher's perceptions of administrative support, and student behavior in the classroom were measured. FAST is

implemented to build social capital between stakeholders and improve behavioral outcomes for students (McDonald et al., 2015). FAST includes administrators, teachers, parents, students, and community members. The program is organized for participants to learn the curriculum, plan how to apply the techniques in their own lives, and then do the things they learned using research based practices (McDonald, 2002). FAST (Families and Schools Together, 2018) reports the following intervention objectives:

- Development of capital
- Help schools succeed
- Better school performance with fewer behavior problems
- More positive interactions between parents and teachers
- Fewer emotional symptoms and behavior problems
- Build social capital among families and schools
- Develop stronger relationships within the existing social structures of schools and communities
- Improve quality of children's lives
- Strengthen families and empower parents

Toppelberg, Hollinshead, Collins, & Nieto-Castañon (2013) found that children's mental health and therefore behaviors were influenced when parents' abilities to advocate increased. Including 228 students and mothers and 39 teachers, researchers analyzed whether parents and teachers, targeted in interventions such as FAST, made a difference in the mental health of Latino children ages 5–7 (Toppelberg et al., 2013). The researchers identified a gap in services by analyzing a Child Behavior Checklist and

suggested that services were more likely to be attained when parents reported mental health concerns for children than when reported by teachers. The researchers further point to drop-out rates and academic scores of Latinos and suggest mental health needs are not adequately being considered as 88% of Latino students with mental health needs are unmet (as cited in, Toppelberg et al., 2013). In a more recent quantitative study, Guo et al. (2017) reported similar findings for third and fourth grade Hispanic students and concluded additional support, prevention, and intervention is needed in schools to support stakeholders.

To mediate such struggles researchers Montañez et al. (2015) used an intervention program similar to FAST and the SDQ instrument. The school-based mental health promotion and prevention program (SBMH-PP) was implemented in an urban area in the Eastern United States from a mostly minority population in two elementary schools. The program was implemented in response to a shortage of services to address school-age children's social, emotional, and behavioral problems. The researchers used the teacher report form, SDQ, and student assessment survey to collect data. The researchers analyzed teacher reports, attendance rates, and academics to evaluate the intervention. The results of the researchers' analysis indicated improvement in student behavior but did not include data regarding school leadership. Similarly, Australian researchers, Havighurst et al. (2015) used the SDQ to evaluate a parenting and school intervention focused on elementary students. The study evaluated parents' social-emotional behaviors as well and reported an increase in empathy and positive child behavior.

Turley et al. (2017) determined in later observations that social capital development within the family affected children's behavior in the home in an analysis of the FAST intervention. Turley et al. used the data to analyze the causal relationship between social capital between families and schools and behavior of children in the home. Social capital increases reported by parents affected student test scores. Capital developed by parents increases parent engagement, and more informed parents are more able to advocate for their children.

In contrast to the FAST program, other interventions focus on teaching practices within the classroom that encourage positive behavior and restorative justice. Skiba and Losen (2016) analyzed quantitative data from districts in 5 metropolitan U.S. cities and found when programs were implemented with fidelity and supported by administrators, suspensions and dropout rates decreased. Researchers recommended additional administrator support, professional development, access to student behavior and discipline data, increased mental health and behavior support personnel, and community collaboration to further engage stakeholders in school wide interventions (Skiba & Losen, 2016). Glapa et al. (2018) agreed that in class interventions could be effective and found positive effects on students' self-efficacy in a quasi-experimental study using a repeated measures ANOVA to analyze the influence of a teaching strategy (brain breaks) on elementary students behavior. Classroom teachers play a central role in the success of students and administrator support or interventions beyond academics is important.

However, limited research suggests intervention programs are ineffective. There are mixed findings regarding programs specifically intervening bullying behaviors.

Yeager, Fong, Lee, and Espelage (2015) argued interventions such as bully prevention have minimal influence or even harm students. The meta-analysis indicated in junior high students the intervention strategy effectiveness declined. The researchers suggest developmental changes reduce the effects of intervention as students age (Yeager et al., 2015). School administrators should consider the longevity of intervention strategies as a potential consideration for behavior interventions.

In conclusion, researchers have found evidence that the FAST program and similar interventions can positively affect students' behavior. However, there are limited findings on the interactions between administrators and the FAST program. The FAST program is focused on students and families but adding an administrator training component could enhance the program.

**Studies Related to Research Questions**

Within studies related to the research questions scholars have analyzed the FAST intervention and found influence on relationships with teachers, students, and parents through the presence of social capital (Fiel et al., 2013; Gamoran et al., 2012; Turley et al., 2017). The review of the literature has revealed a dearth in analyses of administrator support with student behavior in urban elementary populations and a gap in the literature examining interventions such as FAST in relation to administrator support.

**Administrator Support and Teachers.** Studies related to the research questions including data on administrator and teacher relationships have been added to this literature review. Behavior researchers have found adults who feel supported in their communities report more positive behaviors from their children (Neece, 2014).

Administrator support can be viewed as a component of whole-school climate and is likely to affect teachers' perceptions and the behavior of students. Hall et al. (2016) list the roles of the principal as a visionary, instructional leader, engager, learner, and collaborator. The collaborator role, Hall et al. suggest, is similar to other scholars' definitions of support, encouraging administrators to provide high-quality professional development, participate in decision making, and work with colleagues.

Supportive administrators encourage teachers to be leaders (Spillane, 2013). Wenner and Campbell's research supports previous findings in an examination of teacher leadership in a meta-analysis of 72 pieces of peer-reviewed literature reporting qualitative or quantitative results on K–12 teachers. The researchers identified the following constructs for effective teacher leaders: teacher leadership extends beyond the classroom, support professional learning, are involved in policy and decision making, academic achievement, and organizational change. The researchers suggest teacher leadership roles can have a positive effect on confidence, job satisfaction, and relationships with administrators. According to the researchers, administrator support is a critical component of successful teacher leadership.

Supportive principals foster opportunities for student learning (Spillane, 2015). Dhuey and Smith (2018) concluded that in North Carolina principals affected academic achievement in a longitudinal regression analysis of archival data. The sample included ten years of data from all public schools totaling over 5,000,000 student test scores in Grades 4–8 and compared to the mobility of school principals. Effects of principal change outside of test scores were limited; except in the case of a newly certified

principal which resulted in a decline in scores. Dhuey and Smith considered principals regarding value added and measured the differences between incoming and outgoing principals to estimate the effect. The research did not compare principal mobility to other student outcomes as the data were limited to test scores.

Supportive principals identify stakeholder needs (Iachini, Pitner, Morgan, & Rhodes, 2016). Researchers Iachini et al., (2016) measured 20 principals' perceptions of student behavior and school needs in a mixed methods case study exploring teacher, staff, and student needs. Researchers found mental and behavioral health to be the biggest need among all participants in the middle, high, and other schools. In elementary schools, social supports were the biggest need. These data support the need for both administrator and student behavior support.

Researchers have identified connections between administrators and (a) teacher leadership, (b) teachers' influence on student academic outcomes, and (c) teachers' ability to meet student behavior needs. The relationships between administrators and teachers, through a distributed leadership lens, are influenced by the situation (Spillane, 2015). Depending on the situation teachers may act as leaders or followers and engage in various forms of distributed leadership. Strong administrator and teacher relationships positively influence the school climate. In early childhood populations, the relationship between teachers' perceptions of administrator support and the social-emotional behavior of students remains to be studied.

**Teachers influence on student behavior.** The following studies examine the connection between teachers and students through the lens of teacher quality, academic

achievement, school climate, social capital, and student behavior. Ladd & Sorensen (2017), wrote that teacher quality and classroom behavior can be equally meaningful for student success and noted that relationships between students also cause an effect. In a mixed methods study of first year urban teachers, Kwok (2017) explored how quality teaching and student behavior interact. The researchers concurred that relational approaches were more effective despite finding that urban schools tend to focus more on discipline, have less experienced teachers, and less administrator support (Kwok, 2017; Ladd & Sorensen, 2017). Quantitative researchers have found that classrooms with effective teachers have fewer behavior problems. Researchers have found that teachers with more years of experience or greater principal evaluations have higher student test scores; however, there is limited research available on the influence of teachers on student behavior characteristics in Title 1 schools (Kwok, 2017).

In their study, O'Brennan et al., (2014) used Hierarchical Linear Modeling, the Teacher Observation of Classroom Adaptation- Checklist, and The Organizational Health Inventory- Elementary School version to evaluate the behavior of students in Grades 1–5 and teachers perceptions of school climate in Maryland public schools. They found that teacher perceptions of school climate affected teachers' reports of student classroom behavior (O'Brennan et al., 2014). The researchers defined school climate as a result of social interactions between stakeholders in relation to social situations (O'Brennan et al., 2014). Similarly, situations of student behavior are discussed in this section because Spillane defines situation as the product of interactions between leaders and followers, indicating that students, as followers, would act differently based on interactions and that

teachers as followers of administrators would behave differently based on interactions with administrators (Spillane, Shirrell, & Sweet, 2017)

Various forms of capital have been found by scholars to foster relationships between stakeholders and aid in the success of students (Turley et al., 2017). Turley defined capital as resources that develop in relationships and result in social outcomes. Dufur et al.'s (2015) quantitative study analyzed students' responses regarding relationships with teachers and peers. Subsequently, students with higher levels of school social capital have fewer instances of delinquent behavior (Dufur et al., 2015).

Researchers have indicated that behaviors are influenced by outside interventions and through classroom teacher effectiveness (Kwok, 2017; Ladd & Sorensen, 2017; O'Brennan et al., 2014). Goodman (1997) previously identified types of student behavior common in educational settings as social, emotional, and physical wellness indicators. He developed the Strengths and Difficulties Questionnaire for teachers and parents to measure both classroom and at home behaviors. In Chapter 3, the items on the instrument are further described. However, my review of the literature indicated a gap in information regarding the influence administrator support has on the behavior of students. Focusing on improving administrator support can help mediate some of these factors. Researchers suggest large scale interventions could address school-wide needs and data could tailor professional development (O'Brennan et al., 2014).

## Summary and Conclusions

This chapter presented a justification for the need to continue research on the practices of administrator support, student behavior, and the FAST intervention. The

major themes in the literature related to the present study are administrator support, student behavior, and intervention programs. When the FAST program is implemented, researchers consistently find a connection between teachers' behaviors and students' academic achievement, student behavior effects on stakeholder relationships and school climate, and positive school changes. The connection between (a) teachers and students and (b) students and parents has been established in the literature.

What is not known is the extent of the relationship among third-grade teachers' perceptions of administrator support, the FAST school-wide behavioral intervention program, and teachers' perceptions of student classroom behavior. A paucity of peer-reviewed research was found on teacher's perceptions of administrator support and student's behaviors. This lack of research exposed a gap in the literature where the archival data had not been analyzed and could be used to test the influence of teachers' perceptions of administrator support on student behavior during the FAST intervention. This study extends the knowledge in the discipline and addresses the identified gap by identifying administrator support practices that influence student behaviors and may enhance the FAST intervention curriculum. Extending the knowledge of administrative support practices and the interactions with student behavior may have implications for improving principals' practice and FAST curriculum. In Chapter 3, I will review the quantitative quasi- experimental research design and methodology that I used to analyze the influence of teachers' perceptions of administrator support from the archival data.

# Chapter 3: Research Method

## Introduction

The purpose of this quantitative quasi-experimental study was to examine the extent of the relationship among third-grade teachers' perceptions of administrator support, the FAST school-wide behavioral intervention program, and teachers' perceptions of student classroom behavior. The major sections of this chapter include the rationale for research design, methodology, and threats to validity.

## Design and Rationale

### Variables and Research Questions

The independent variables were third-grade teachers' perceptions of administrator support and FAST program intervention compared to the control group. The primary researchers measured the FAST intervention nominally as participated (experimental group) or did not participate (control group). Researchers measured teachers' perceptions of administrator support using a questionnaire regarding administrator support roles with labels including (a) administrator, (b) principal, and (c) school policies that may be implemented by the local principal or district administrator. The dependent variable was student behavior scores as reported by teachers on the SDQ. The SDQ measures student behavior using a 1–3 Likert scale.

The following questions guided this study:

RQ1. To what extent do third-grade teachers' perceptions of administrator support and the FAST intervention group compared to the control group predict teachers' perceptions of student behavior in the classroom?

$H_0$1: Third-grade teachers' perceptions of administrator support and the FAST intervention group compared to the control group does not predict teachers' perceptions of student behavior in the classroom?

$H_1$1: Third-grade teachers' perceptions of administrator support and the FAST intervention group compared to the control group does predict teachers' perceptions of student behavior in the classroom?

RQ2. To what extent do third-grade teachers' perceptions of administrator support predict the teachers' perceptions of student behavior in the classroom?

$H_0$2: Third-grade teachers' perceptions of administrator support do not predict the teachers' perceptions of student behavior in the classroom

$H_1$2: Third-grade teachers' perceptions of administrator support do predict the teachers' perceptions of student behavior in the classroom.

RQ3. To what extent does the FAST intervention predict third-grade teachers' perceptions of student behavior in the classroom?

$H_0$3: The FAST intervention does not predict third-grade teachers' perceptions of student behavior in the classroom.

$H_1$3: The FAST intervention does predict third-grade teachers' perceptions of student behavior in the classroom.

**Quasi-Experimental Design**

I used quasi-experimental design to examine the relationships among third-grade teachers' perceptions of administrator support, the FAST intervention control and experimental groups, and student classroom behavior. For this research, the treatment

group was teachers of students who participated in the FAST program, while the control group was teachers of students who did not participate in the FAST program. The design connects to the research questions as it indicates the ability to test the relationships in support groups. The quasi-experimental design was also appropriate for the my research because the design is often used in educational research and supports the use of archival data (Laerd Statistics, 2018). Researchers Glapa et al. (2018), and Skiba and Losen (2016) found quasi-experimental designs effective for intervention research in populations of administrators, teachers, and students. I analyzed posttest data.

The FAST intervention was included in this study because it is a widely-utilized behavior intervention for students in the United States and researchers collected data on both behavior and administrator support (Gamoran, 2015). Researchers did not previously analyze the administrator support data. The findings from this research build on previously conducted quantitative studies that have individually examined administrator support, the FAST intervention, and elementary student behavior.

For the present study, I used an ordinary least squares regression analysis. Regression is a standard analysis model used to examine the relationships between predictor variables and outcome variables (Simon Fraser University, 2018). The results of the regression indicated whether a relationship existed among third-grade teachers' perceptions of administrator support, the FAST intervention control and experimental groups, and student classroom behavior. Regression supports a continuous outcome (dependent) variable and gives researchers a view of how predictor (independent) variables relate to the outcome (Laerd Statistics, 2018).

# Methodology

## Population

The data collection processes used in the archived study will be included in this section. The data in the archived study were collected by researchers at University of Wisconsin-Madison who received Institutional Review Board (IRB) approval and the data has been approved and stored by the Inter-University Consortium for Political and Social Research (Gamoran, 2015). Per Walden guidelines, secondary data are appropriate when the researcher does not have access to the population being tested, reduces the overall strain on participants by not requiring an additional study, and is financially efficient (Lynn, Endicott, Milanesi, & Sherer, 2014). The intervention has been replicated and implemented in 45 states and multiple countries in both urban and rural settings (Fiel et al., 2013). Multiple randomized controlled trials including one involving the sample studied here, establish that FAST involves families with schools and school staff and positively effects the academic and social skills of students (Gamoran et al., 2012; McDonald et al., 2015). My study is unique in that it examined the possible relationship between administrators and the behavior of students in the FAST program. The following sections will describe the details of the methods that I used for this research.

The target population was third-grade teachers at schools in three Phoenix, Arizona school districts that participated in the FAST intervention. The target population size was approximately 200 teachers who collectively reported on approximately 14 principals' support practices and approximately 1,000 third-grade students' behaviors. The student demographics are greater than 50% racial minority and low socioeconomic

status. The data set is unique because the researchers invited all students to participate whereas previous studies of FAST focused on at-risk populations. These data are publicly available through Inter-University Consortium for Political and Social Research (ICPSR) and were accessed after Walden IRB (02-04-19-0279326) approval was gained.

**Sampling and Sampling Procedures**

I used a nonprobability convenience sample from a large historical data for the study. The eligibility criteria were (a) history of participating in FAST, (b) Latino student population of 25% or higher, (c) Title 1 (majority free and reduced lunch), and (d) the school leaders consented to join the study. Demographic variables of this study include race/ethnicity and gender.

The study's sample size was limited by the sampling method. The researchers of the archival data chose three Phoenix, Arizona school districts because they had a history of participating in FAST, had a high Latino population, and the school leaders consented to join the study. Schools were selected by district leaders (Gamoran, 2015). School districts outside the Phoenix area and not meeting the above criteria were excluded. Two randomized cohorts were created by researchers, and the program was implemented across fall, winter, and spring beginning in the 2008 school year. All first-grade classes, with an average of 96 students per school, were invited to participate during the initial data collection. Participants were tested over 2 years, resulting in administrator support and student behavior data from teachers and parents of third-grade students that were analyzed in my research.

According to records for the historical data, the original target population was 5,408 students in Arizona and Texas school districts for the Social Capital and Children's Development study conducted by University of Wisconsin-Madison researchers from 2008–2013 (Gamoran, 2015). The target population was derived from 1,477 parents with children in first grade who were enrolled at a study school in a Phoenix, Arizona school district and their teachers, as they were also tested in third grade. Consequently, the researchers aimed to analyze posttest data from approximately 200 teachers' who collectively reported on approximately 14 principals' support practices and approximately 1,000 third-grade students' behaviors, a subset of the historical data sample. The posttest sample of students in third grade is appropriate because researchers only administered the teacher questionnaire during the posttest. The reduction in students from 1,477 to 1,000 reflects enrollment at the study school and participation in the follow up program in third grade. Researchers have justified the sample size in previous studies using the archival data indicating that 60% of the 5,408 student target population for both Texas and Arizona schools was included in the original sample and 69% of the sample responded in the third year (Fiel et al., 2013; Turley et al., 2017; Valdez, Shewakramani, Goldberg, & Padilla, 2013). Researchers set the significance level at $\alpha = .05$ and power $(1- \beta) = .95$ (Turley et al., 2017; Valdez, Shewakramani, et al., 2013).

**Archival Data Recruitment, Participation, and Collection Procedures**

I analyzed public use data available from ICSPR collected by University of Wisconsin- Madison researchers and previously analyzed for the Social Capital and Children's Development Study. Additional quantitative and qualitative studies completed

using the original data are also included in Chapter 1 and 2 in the proposal and included themes of (a) relationships and social capital between school teachers, administrators, students, and parents; (b) racial and economic equality; (c) student achievement; and (d) student behavior (Fiel et al., 2013; Gamoran et al., 2012; Shoji, Haskins, Rangel, & Sorensen, 2014; Turley et al., 2017; Valdez, Mills, Bohlig, & Kaplan, 2013; Valdez, Lewis, & Padilla, 2013; Valdez, Shewakramani, et al., 2013). The literature review revealed the variables used in the present study had not been previously analyzed in the same way.

According to the researchers, Gamoran, Turley, McDonald, and Valdez (2013) recruitment of school districts and city decisions were made based on: (a) the district's history of implementing FAST, (b) Latino population of at least 25% during the 2007/2008 school year, (c) Title 1 status (majority low-income population), and (d) agreed to participate. School district leaders chose schools, and researchers were allowed to randomly assign schools to treatment status. School principals were asked to attend a meeting where researchers presented the research plan, and those who consented to allow their school to participate were included in the study. Classrooms in the study were selected according to grade level, all 1st grade classrooms were included in the pre-and posttest and third-grade classrooms were included in the follow up study. Students/families were chosen based on their enrollment in first grade between 2008–2010. The demographic information collected for teachers included gender. Student demographic information included grade and ethnicity. Demographic differences between control and treatment groups were not statistically significant. Only the teachers

who participated in the post test for third-grade students during 2011/2012 were included because administrative support data were collected only during this time. Participants were provided informed consent documents by researchers and school principals.

The main study used a longitudinal design with data collection beginning in 2008 and ending in 2013. I analyzed data from Cohort 2 and follow-up surveys by teachers of third-grade students in 2012. The data were collected by University of Wisconsin-Madison researchers. Data collection was completed in two cohorts, including pre-/posttesting, and a follow up study. Parent participants received $10 gift cards and teachers received $150 gift cards. Participants exit the study by completing a posttest survey. The follow-up procedures included parent groups that met once a month for two years led by parent volunteers and school staff in activities similar to the FAST curriculum. Teachers and parents completed a follow up questionnaire.

**Data access.** The deidentified data are currently public use through ICSPR. The original data results were shared by Gamoran et al. (2013) through ICSPR. The research procedures ensured privacy during data collection allowing participants to complete questionnaires privately. The data have been stored securely using ICSPR and will be stored for at least 5 years. According to the researchers, Gamoran et al. (2013) participants' names and contact information were recorded and coded to ensure privacy. The research procedures, analysis, and write up plans included all feasible steps to guarantee that participant information was not directly or indirectly revealed. Confidentiality agreements were obtained from those who viewed the data containing

identifiers. I did not need a confidentiality agreement as I only used the deidentified data as it pertains to the variables.

**FAST Intervention**

The nature of the intervention included an eight-week families and schools program. It was designed to build a relationship between administrators, teachers, and families. FAST (Families and Schools Together, 2018) reports the following intervention objectives for stakeholders:

- Development of capital
- Help schools succeed
- Better school performance with fewer behavior problems
- More positive interactions between parents and teachers
- Fewer emotional symptoms and behavior problems
- Build social capital among families and schools
- Develop stronger relationships within the existing social structures of schools and communities
- Improve quality of children's lives
- Strengthen families and empower parents

School administrators, teachers, and parent volunteers administered the program during 2.5-hour sessions on a weekly basis for eight weeks at the seven experimental group schools. The participants were parents and children with students in first grade and then once a month for two years. The follow-up programs continued through third-grade when the families and teachers received the posttest survey. The intervention has previously

been used throughout the United States and internationally (McDonald, 2002). More information on the materials, developer, previous use, and development are included later in this chapter.

**Instrumentation and Operationalization of Constructs**

The analysis included 25 items derived from the Strengths and Difficulties Questionnaire on the instrument labeled Teacher Questionnaire administered in Year 3 (See Appendix A). The SDQ is an instrument designed to measure students social, emotional, and physical behaviors using a Likert scale (Goodman, 2001). It is appropriate to the current study as it measures the behavior of students in the classroom. The SDQ has been used internationally to measure emotional symptoms, behavior problems, hyperactivity/inattention, peer relationship problems, and prosocial behavior using a Likert scale. Permission was obtained by the researchers in the original study.

Goodman established the construct reliability and validity for the SDQ instrument (2001). He examined a sample of over 10,000 students and found internal consistency, cross contamination, and retest stability reliability means between .34 and .72 indicating an acceptable range. Additional researchers concurred the SDQ is valid after testing against the CBCL and Achenback instruments in a population of students age 4–7 (Stone et al., 2015). The instrument has previously been used with populations ages 3–18 in schools and clinical settings worldwide. The SDQ measures the following:

- Physical wellness
- Student behavior is restless overactive
- Often complaints of headaches, stomach aches, sickness

- Student behavior is fidgeting or squirming
- Student is easily distracted
- Student is picked on bullied by other children
- Emotional wellness
- Student has many worries
- Student is often unhappy depressed
- Student is nervous in new situation
- Student has many fears or is easily scared
- Social behavior
- Student is considerate of others feelings
- Student shares readily with other children
- Student often loses temper
- Rather solitary prefers to play along
- Student is generally well behaved
- Student is helpful if someone is hurt
- Student has at least one good friend
- Student fights or bullies other children
- Student is liked by other children
- Student is kind to younger children
- Student offers to help others
- Student thinks things out before acting

- Student steals from home school or elsewhere
- Gets along better with adults than with other children
- Student has good attention span completes chores or homework

The analysis of the independent variable included items under the administrator support questions on the teacher questionnaire instrument labeled Children, Families, and Schools administered in Year 3 (See Appendix A). The questionnaire was intended to collect more information about teachers and their perceptions of the administrators. Administrator support questions were adapted from the Public-School Teacher Questionnaire, an instrument designed to measure teachers school environment. The Public-School Teacher Questionnaire was previously used by Newmann, Smith, Allensworth, and Bryk (2001) with data collected by the U.S. Department of Commerce that has been endorsed by the Department of Education and several national associations. The teacher questionnaire for the study was approved by the University of Wisconsin-Madison IRB for the Social Capital and Children's Development Study (Gamoran, 2015). However, due to the limitations of the research questions and time for the main study, the administrative support data were not analyzed.

The teacher questionnaire addresses the following items on a Likert scale: (a) administrator deals effectively with pressures from outside the school that affect teaching; (b) administrators behavior is supportive and encouraging; (c) principal lets staff know what is expected of them; (d) academic standards are too low; (e) necessary materials are available; (f) teachers are learning; (g) student misbehavior outside of the classroom interferes with teaching; (h) learning expectations are defined for all students;

(i) teachers are generally satisfied with being a teacher at their school; (j) teachers are certain they are making a difference in the lives of children they teach; (k) teachers have control over choosing instructional materials and practices; (l) teachers have control over selecting classroom management strategies; (m) teachers believe students are capable of learning the required materials; and (n) teachers are satisfied with their salary.

**FAST Intervention Materials**

The background of the FAST program was presented in a report with the original data (McDonald, 2002). Information about the materials, developer, previous populations, and sponsorship was included. According to researcher Dr. Lynn McDonald's (2002) report, she began developing the FAST program in 1988 after she recognized the mass of literature in child development, family stress, family systems theory and a need to apply this knowledge in schools. The program began as part of an anti-drug initiative in Wisconsin schools during 1990 and has since been used nationwide and tested in Latino, special education, American Indian, and African American student populations (Families and Schools Together, 2018).

The FAST program gathers families and school stakeholders to build relationships with one another but also offers short workshops during each session using curriculum developed by the company. The program format includes eight 2.5-hour sessions comprised of meals, music, communication, collaboration, and play. Within each weekly session led by a volunteer parent, school teacher or administrator, and FAST trainer, research based activities are organized to build relationships, foster respect

between participants, learn parenting skills, and engage children in play therapy to support student behavior (McDonald, 2002).

**Operationalization of Variables**

The independent variables are third-grade teachers' perceptions of administrator support (nominal) and FAST program intervention compared to the control group. Teachers' perceptions of administrator support (nominal) are measured using the teacher questionnaire instrument labeled Children, Families, and Schools administered in Year 3. Guided by the questionnaire used in the archival data, the operational definition for the variable administrator support was actions or policies implemented by school leaders such as principals, vice principal, or district leadership that affect (a) positive relationships with teachers, (b) teachers' positive school environment, and (c) teachers' autonomy in the classroom as represented on the teacher questionnaire. The items under questions 11 and 12 of 13 total questions were included in my study about administrator support roles with labels that included (a) administrator, (b) principal, and (c) school policies that may be implemented by the local principal or district administrator. The questionnaire used a Likert scale indicating 1) strongly disagree, 2) disagree, 3) agree, and 4) strongly agree. The FAST intervention was measured as participated (experimental group) or did not participate (control group).

The operational definition for the variable student behavior was actions in response to physical, social, or emotional situations as indicated on the Strengths and Difficulties Questionnaire (Goodman, 1997)**.** The dependent variable was student behavior scores from 25 items under question four derived from the Strengths and

Difficulties Questionnaire on the instrument labeled Teacher Questionnaire administered in Year 3. The scale used to analyze the data were 0) Not true 1) Somewhat true 2) certainly true. Each score that the teacher reported was summed for all of the teachers' students. For example, if the teacher had three students who scored 1, 1, and 2 for a disruptive behavior item, the teacher's score would be 4.

**Data Analysis Plan**

SPSS software was used for the management and statistical analysis of the data from the teachers' responses to each of the items from the SDQ survey and teacher questionnaire. The sample was 152 teachers. The teachers responded to two questionnaires. The first was labeled Teacher Questionnaire Children, Families, and Schools administered in Year 3 and included four questions with a total of 53 items about teachers' perceptions of parents and student behavior. The second was labeled Children, Families, and Schools and administered in Year 3 and included 13 questions regarding teacher demographics, experience, education, and administrator support.

**Data cleaning.** The historical data from ICSPR were cleaned and I screened the records. The first steps in the analysis process after obtaining IRB approval and access to the data set was to remove participants that were missing information, identify variables consistent with the research questions, and eliminate those that were not needed.

The student behavior variables included all 25 items derived from the Strengths and Difficulties Questionnaire under question four which was on the instrument labeled Teacher Questionnaire Children, Families, and Schools administered in Year 3. Student behaviors were divided into five variables.

The administrator support variables were measured using questions on the instrument labeled Children, Families, and Schools administered in Year 3. The analysis incorporated all ten items under question 11 and all seven items under question 12 of 13 total questions using a Likert scale score. The remaining survey questions 1–10 and 13 were excluded for simplicity and consistency with the research questions as the items included unnecessary information regarding teachers' experiences, classroom position, and education. Administrator support was divided into four variables.

All 28 items from questions 1–3 on the instrument labeled Teacher Questionnaire Children, Families, and Schools administered in Year 3 were included. Covariates involving teachers' perceptions of parents were also included and divided into five variables as it is logical that perceptions of relationships with parents may affect teachers' perceptions of student behavior or environmental support. Teachers' race and gender identifications were included within the items on the questionnaire as well, and entered into the analyses.

After choosing items consistent with the research questions and literature the eigenvalues at 1 or greater and factors predicted by the strengths and difficulties questionnaire (Brown, 2001) were examined to determine the number of factors. The eigenvalues are included below in Table 1 and 2. A description of the processes used to create the variables and covariates is included below.

Table 1

*Total Variance Explained for Student Behavior*

| Component | Initial Eigenvalues | |
|---|---|---|
| | Total | % of Variance |
| 1 | 5.917 | 34.805 |
| 2 | 1.56 | 9.175 |
| 3 | 1.289 | 7.581 |
| 4 | 1.229 | 7.231 |
| 5 | 1.109 | 6.524 |

Table 2

*Total Variance Explained for Administrator Support*

| Component | Initial Eigenvalues | |
|---|---|---|
| | Total | % of Variance |
| 1 | 5.917 | 34.805 |
| 2 | 1.56 | 9.175 |
| 3 | 1.289 | 7.581 |
| 4 | 1.229 | 7.231 |

**Creating variables.** After evaluating the eigenvalues to find out how many factors fit within each variable, the factors were labeled logically according to the administrator support literature and the SDQ, and the Cronbach alpha scores > 0.6 were used by me to determine reliability of the questionnaire items to justify adding each of the questionnaire items into the factors. Items were recoded as necessary according to the scale. The Cronbach's alpha for each factor indicates that the items load on one factor and the scale reliability test results are listed for each factor ("Multiple Regression in SPSS Statistics" , 2018). The codes for each variable below correspond to the question and item number from each questionnaire. The factors that were created, items that were

included in each factor, and the internal consistency of the factors is discussed in the following sections: student behavior, administrator support, and covariates.

**Student behavior (dependent variable).** Student behavior is measured using five factors derived from the survey data: hyperactivity/ inattention, conduct, peer relationships, emotional behavior, and prosocial behavior. The survey asked third-grade teachers to indicate how 3rd grade students behaved in the classroom in the past three months.

The questionnaire teachers completed regarding student behavior was derived from the SDQ. The scale used to analyze the data were 0) Not true 1) Somewhat true 2) certainly true. The following items were backward coded 2) Not true 1) Somewhat true 0) Certainly true:

B4Y: (recode) Student's behavior: Good attention span, completes chores or homework

B4U: (recode) Student's behavior: Think things out before acting

B4F: (recode)Student's behavior: Rather solitary, prefers to play alone

B4S: (recode) Student's behavior: Picked on or bullied by other children

B4N: (recode) Student's behavior: Liked by other children

B4K: (recode) Has at least one good friend

B4G: (recode) Student is generally well behaved

Factors reflect (a) prosocial behaviors, such as consideration of others feelings, sharing, helpfulness, kindness, and willingness to help, (b) conduct problems, such as the student loses their temper, fights and bullies, lies or cheats, steals, and generally being

well behaved, (c) emotional symptoms, including complaints of sickness, worries, unhappiness, and fears or being scared easily, (d) hyperactivity/inattention, such as restlessness, being easily distracted, ability to complete homework, fidgeting, or thinking before acting, (e) peer relationship, including getting along better with adults, preferring to play alone, being picked on by other children, liked by other children, and has at least one friend.

*Prosocial behavior* is an average scale of five items listed below and has a Cronbach's alpha equal to 0.88, a high level of internal consistency. *Conduct problems* is an average scale of five items listed below and has a Cronbach's alpha equal to 0.89, a high level of internal consistency. *Emotional symptoms* is an average scale of five items listed below and has a Cronbach's alpha equal to 0.788, a good level of internal consistency. *Hyperactivity/inattention* is an average scale of five items listed below and has a Cronbach's alpha equal to 0.879, a high level of internal consistency. *Peer relationship* is an average scale of five items listed below and has a Cronbach's alpha equal to 0.602, generally a poor level of internal consistency, but items were consistent with the SDQ questionnaire. Also, a reliability analysis was run to determine what Cronbach's alpha would be if each item was deleted. For most of the items that carried negative values in the correlation, the Cronbach's alpha would increase if deleted. None of these were removed because the difference in Cronbach's alpha was negligible. Items included in each factor for the dependent variable student behavior are listed below.

Prosocial Behavior: Variable 1: Cronbach's Alpha = 0.88

B4A: Student's behavior: Considerate of other people's feeling

B4D: Student's behavior: Shares readily with other children

B4I: Student's behavior: Helpful if someone is hurt

B4Q: Student's behavior: Kind to younger children

B4T: Student's behavior: Offers to help others

Conduct Problems: Variable 2: Cronbach's Alpha = 0.89

B4E: Student's behavior: Often loses temper

B4L: Student's behavior: Fights or bullies other children

B4R: Student's behavior: Often lies or cheats

B4V: Student's behavior: Steals from home, school, or elsewhere

B4G: (recode) student generally well behaved

Emotional Symptoms: Variable 3: Cronbach's Alpha = 0.79

B4C: Student's behavior: Often complaints of headaches, stomachaches, ` sickness

B4H: Student's behavior: Many worries

B4M: Student's behavior: Often unhappy, depressed

B4P: Student's behavior: Nervous in new situation

B4X: Student's behavior: Has many fears or easily scared

Hyperactivity/Inattention: Variable 4: Cronbach's Alpha = 0.88

B4B: Student's behavior: Restless, overactive

B4O: Student's behavior: Easily distracted

B4Y: (recode) Student's behavior: Good attention span, completes chores or homework

B4J: Student's behavior: Fidgeting or squirming

B4U: (recode) Student's behavior: Think things out before acting

Peer Relationship: Variable 5: Cronbach's Alpha = 0.60

B4F: (recode)Student's behavior: Rather solitary, prefers to play alone

B4W: Student's behavior: Gets along better with adults than with other children

B4S: (recode) Student's behavior: Picked on or bullied by other children

B4N: (recode) Student's behavior: Liked by other children

B4K: (recode) Has at least one good friend

**Administrator support (independent variable).** The questionnaire teachers completed regarding administrator support used a Likert scale indicating 1) strongly disagree, 2) disagree, 3) agree, and 4) strongly agree. The following items were backward coded 4) strongly agree, 3) agree true, 2) disagree, 1) strongly disagree:

C3SCEN5: SCH ENV: Academic standards are too low

C3SCEN8: SCH ENV: Student misbehavior interferes with my teaching

C3TEXP6: TCH EXPR: Many children are not capable of learning material

Factors reflect (a) environment, such as teachers' perceptions of support within the school environment. (b) support, such as teachers' perceptions of their relationship with the administrator (c) satisfaction, including teachers perceived satisfaction with the supports provided by the school, (d) interaction, such as student misbehavior, parent involvement, and perceptions of student capability.

*Environment* is an average scale of five items listed below and has a Cronbach's alpha equal to 0.81, a high level of internal consistency. *Support* is an average scale of three items listed below and has a Cronbach's alpha equal to 0.86, a high level of internal consistency. *Satisfaction* is an average scale of five items listed below and has a Cronbach's alpha equal to 0.71, a good level of internal consistency. *Interaction* is an average scale of three items listed below and has a Cronbach's alpha equal to 0.52, generally a poor level of internal consistency, but items were consistent with the teacher questionnaire. A reliability analysis was run to determine what Cronbach's alpha would be if each item were deleted. For most of the items that carried negative values in the correlation, the alpha would increase if deleted. The difference in alpha was negligible, and none of these were removed. Items included in each factor for the independent variable administrator support are listed below.

Environment: Variable 1: Cronbach's Alpha = .81

C3SCEN1: SCH ENV: Agreement about SCH mission among faculties

C3SCEN6: SCH ENV: Necessary materials available as needed by staff

C3SCEN7: SCH ENV: Teachers are learning & seeking new ideas

C3SCEN10: SCH ENV: School has well-defined learning expectations for all students

(recode) C3SCEN5: SCH ENV: Academic standards are too low

Support: Variable 2: Cronbach's Alpha .86

C3SCEN2: SCH ENV: School administrator deals with pressure from outside the school

C3SCEN3: SCH ENV: School administrator's behavior is supportive

C3SCEN4: SCH ENV: Principal lets staffs know what is expected of them

Satisfaction: Variable 3: Cronbach's Alpha = .71

C3TEXP1: TCH EXPR: Satisfied with being a teacher at this school

C3TEXP4: TCH EXPR: I have control in selecting instructional materials and methods

C3TEXP5: TCH EXPR: I have control in selecting class management strategy

C3TEXP3: TCH EXPR: Satisfied with my class size

C3TEXP2: TCH EXPR: Making a difference in children's' lives

Interaction: Variable 4: Cronbach's Alpha = .515

(Recode) C3SCEN8: SCH ENV: Student misbehavior interferes with my teaching

C3SCEN9: SCH ENV: Parent involvement is high

(Recode) C3TEXP6: TCH EXPR: Many children are not capable of learning material

**Covariates.** These variables were included as controls as teachers' perceptions of parents may affect their perceptions of student behavior and including additional variables improved the analysis. These variables were created from teacher responses to all 28 items in questions 1–3 on the Teacher Questionnaire Children, Families, and Schools administered in Year 3. Teachers perceptions of parent relationship, parent involvement in homework and reading (Parent HW/Reading), parent communication,

parent attendance, and parent involvement were included. Teacher gender, race, and Hispanic identification were also included from teacher responses to questions 1–3 on the Children, Families, and Schools Questionnaire.

Parent Relationship: Cronbach's Alpha = .96

B1A: This parent treats me with respect

B1B: Feel comfortable talking to this parent

B1C: Have a good parent-teacher relationship

B1D: Trust this parent to follow through on requests

B1E: Feel this parent & I are partners

B1F: Have confidence in the ability of this parent

B1G: This parent wants child to be successful academically

B1H: This parent is supportive of child's education

Parent Homework/Reading: Cronbach's Alpha =.83

B3D: Parent has not been involved in child's education

B3F: Child completed homework

B3G: Child has shared home experiences that negatively impact schooling

B3E: Child has reading experiences at home

B3I: Educational environment at home is high risk

Parent Communication: Cronbach's Alpha = .84

B2A: Contacted parent about child's problem

B2B: Asked parent to help child with school work

B2E: Gave parent a positive report about child

B2F: Gave parent a negative report about child

B2G: Asked parent to provide information about child

B2H: Invited parent to visit classroom

B2K: Parent contacted me

Parent Attendance: Cronbach's Alpha =.69

B2C: Sent home written information

B2D: Expected parent to look at child's school work

B2I: Parent was invited to attend a school program

B2J: Assigned homework

Parent Involvement: Cronbach's Alpha =.70

B3A: Parent helped child with school work

B3B: Parent has been aware of how child is doing in school

B3C: Parent attended a school program for parents

B3H: Child has told about educational outing

*Race* is a set of dummy variables that indicate the race of the teacher. The reference category is Race.

*Gender* is a dummy variable that indicates whether the teacher was male ( = 1) or not ( = 0).

**Regression analysis.** I used an OLS regression model to analyze the relationships among the variables for all of the research questions. I used the following research questions and hypotheses for this research:

RQ1. To what extent do third-grade teachers' perceptions of administrator support and the FAST intervention group compared to the control group predict teachers' perceptions of student behavior in the classroom?

$H_0$1: Third-grade teachers' perceptions of administrator support and the FAST intervention group compared to the control group does not predict teachers' perceptions of student behavior in the classroom?

$H_1$1: Third-grade teachers' perceptions of administrator support and the FAST intervention group compared to the control group does predict teachers' perceptions of student behavior in the classroom?

RQ2. To what extent do third-grade teachers' perceptions of administrator support predict the teachers' perceptions of student behavior in the classroom?

$H_0$2: Third-grade teachers' perceptions of administrator support do not predict the teachers' perceptions of student behavior in the classroom

$H_1$2: Third-grade teachers' perceptions of administrator support do predict the teachers' perceptions of student behavior in the classroom.

RQ3. To what extent does the FAST intervention predict third-grade teachers' perceptions of student behavior in the classroom?

$H_0$3: The FAST intervention does not predict third-grade teachers' perceptions of student behavior in the classroom.

$H_1$3: The FAST intervention does predict third-grade teachers' perceptions of student behavior in the classroom.

Regression is a standard analysis model used to examine relationships between predictor variables and outcome variables (Harrell, 2015). The results of the regression indicate whether or not there is a relationship between administrator support, the FAST intervention control and experimental groups, and student behavior. Regression supports a continuous outcome (dependent) variable and gives researchers a view of how predictor (independent) variables relate to the outcome (Campbell & Stanley, 1967). The descriptive statistics report includes the mean and standard deviations to provide information about participants' characteristics and student behaviors in Chapter 4. I tested the assumptions associated with the OLS model including independence of observations, the absence of multicollinearity, linearity, and homoscedasticity. The *F* statistics of each model show that the regression is a good fit ($p < .0005$). The regression model was run with the outcome and predictor variables. The probability value for each coefficient tests the null hypothesis that the variable does not correlate with the dependent variable; in other words, it tests whether the coefficient is statistically different from zero (null hypothesis). The beta coefficients indicate the magnitude of the relationship between each independent variable and the outcome variable. In Chapter 4 Table 8 the results are reported.

The following regression equation (main effects model) was used to predict the influence of administrator support and the FAST program on student behavior:

$$Student\ behavior = \beta_0 + \beta_1 Support + \beta_2 Fast\ Intervention + \beta_{5-10} Control + \varepsilon +$$

## Threats to Validity

As a quasi-experimental research design, this research had issues that needed addressing. Threats to validity included both external and internal concerns. Recognizing and addressing threats to validity improved the generalizability of the study.

### External Validity

Potential interactions between variables and the lack of specificity of variables are included to address threats to external validity. The generalization of the findings may be decreased because the sample is limited to participants in a single state. Campbell and Stanley (1967) also advise the interaction of selection and treatment could be an external threat due to the specificity of the FAST intervention. J. W. Creswell and J. D. Creswell (2017) suggested addressing these limitations by including only participants who meet the sampling criteria and conducting additional experiments in other settings in the future. The criteria include participants who were teaching third-grade at a study school and had a third-grade student who participated in the FAST group or control group in their classroom. The primary researchers assigned identifiers to questionnaires to connect teachers and students.

### Internal Validity

A threat to internal validity is the convenience sampling of public elementary third-grade teachers at Title 1 schools in Phoenix, Arizona that was used. Within the main study maturation of the students is a threat to validity as behaviors may change due to advances in child development. History may affect students' behavior between pre-and

posttests as students' experiences may influence behavior changes (Creswell J. W. & Creswell J. D., 2017).

**Ethical Procedures**

The archival data were selected for this research by me to examine the relationships among administrator support, the FAST school-wide behavioral intervention program, and student classroom behavior. I have no previous connection with the FAST program, any school that has implemented the program, or main researchers. The teachers' questionnaires regarding administrator support were not previously analyzed in this manner. The ethical considerations were addressed by the original researchers from the University of Wisconsin-Madison. I maintained participant confidentiality by using the deidentified public use data file for my study. I will continue to honor the ethical practices by protecting the data through proper storage.

Researchers also suggested considering the ethical implications of beneficence, social justice, autonomy, and transparency when implementing an intervention (Leadbeater et al., 2018). For this study, these considerations were made by reviewing literature in Chapter 2 that supports the FAST concepts and implementation of the intervention in the suggested population to conclude a potential benefit. Additional considerations made to address ethical concerns included, the FAST program was provided by a non-profit organization, used nationwide in schools and family services, and the intervention schools in this study are identified as schools that had previously engaged with the FAST program. Deidentified public use data for this research was accessed from ICSPR after Walden IRB approval was gained.

## Summary

In Chapter 3 the methodology that was used in this study was explained. A description of the research design and the rationale for implementing the study were discussed. Research questions and hypotheses were presented to establish how the study purposes would be addressed. In addressing the research questions, a description of the archival data sample population, setting, and an explanation of the instrumentation selected for this study were provided. Lastly, a description of the statistical analyses was presented. Chapter 4 will include a description of the data collection process, results of the SPSS statistical tests conducted, explanation of results, and a discussion of how the results answered the questions.

# Chapter 4: Results

## Introduction

The purpose of this quantitative quasi-experimental study was to examine the extent of the relationship among third-grade teachers' perceptions of administrator support, the FAST school-wide behavioral intervention program, and teachers' perceptions of student classroom behavior. This chapter includes the following sections: setting, participant demographics, data collection, data analysis, evidence of trustworthiness, results, and summary. I used the following research questions to guide this study:

RQ1. To what extent do third-grade teachers' perceptions of administrator support and the FAST intervention group compared to the control group predict teachers' perceptions of student behavior in the classroom?

$H_0$1: Third-grade teachers' perceptions of administrator support and the FAST intervention group compared to the control group does not predict teachers' perceptions of student behavior in the classroom?

$H_1$1: Third-grade teachers' perceptions of administrator support and the FAST intervention group compared to the control group does predict teachers' perceptions of student behavior in the classroom?

RQ2. To what extent do third-grade teachers' perceptions of administrator support predict the teachers' perceptions of student behavior in the classroom?

$H_0$2: Third-grade teachers' perceptions of administrator support do not predict the teachers' perceptions of student behavior in the classroom

$H_1$2: Third-grade teachers' perceptions of administrator support do predict the teachers' perceptions of student behavior in the classroom.

RQ3. To what extent does the FAST intervention predict third-grade teachers' perceptions of student behavior in the classroom?

$H_0$3: The FAST intervention does not predict third-grade teachers' perceptions of student behavior in the classroom.

$H_1$3: The FAST intervention does predict third-grade teachers' perceptions of student behavior in the classroom.

## Data Collection

I conducted this study using archival data from ICSPR that was collected from participants at fourteen elementary school settings in Phoenix, Arizona school districts during the 2011–2012 school year. The original sample recruitment and response rates were representative of 60% of the 5,408 student target population for both Texas and Arizona schools (Fiel et al., 2013; Turley et al., 2017; Valdez, Shewakramani, et al., 2013). Data collection followed the methodology and procedures stated in Chapter 3. Because the data that I used are archival, no changes were made to the data collection plan. Approval was obtained from Walden IRB, number 02-04-19-0279326.

### Baseline Descriptive Characteristics and Sample Representation

According to records for the historical data, the original target population was 5,408 students in Arizona and Texas school districts for the Social Capital and Children's Development study conducted by University of Wisconsin-Madison researchers from 2008–2013 (Gamoran, 2015). The target population was derived from 1,477 parents with

children in first grade who were enrolled at a study school within selected Phoenix, Arizona school districts. During the students' third-grade year their parents and classroom teachers completed posttest questionnaires at the conclusion of the FAST follow up program. Archival data indicated approximately 200 teachers who collectively reported on approximately 14 principals' support practices and approximately 1,000 third-grade students' behaviors in Phoenix, Arizona schools, a subset of the historical data sample. The posttest sample of students in third-grade was selected because researchers only administered the teacher questionnaire during the posttest. The reduction in students from 1,477 to 1,000 reflects enrollment at the study school and participation in the follow-up program in third-grade. Demographic tables of the sample are included in the results section in Table 3.

## FAST Intervention Fidelity

The treatment group for this study was teachers whose students participated in the FAST intervention program at 14 schools in the sample. The control group for this study was teachers whose students who were enrolled at 14 sample schools that did not participate in the study. The primary researchers of the archival data implemented the treatment as planned and there were no adverse events related to the intervention reported.

## Results

### Descriptive and Demographic Statistics of the Sample

A total of 174 teachers completed this study providing data on administrator support and their third-grade students' behaviors for 14 schools in three school districts in

Phoenix, Arizona. The sample includes 69% of the target teacher population. However, after data screening and cleaning, there were 152 teacher participants representing 914 third-grade students. The archival data indicated the target population was over 50% Latino students and the data are representative of the population in the southwestern United States. The sample analyzed included demographic data of teachers. Table 3 indicates the percentage of teachers representing each race, the percentage of teachers with students who participated in the FAST program, and the number of male and female teachers. Among the respondents, 1% identify as Native American or Hawaiian, 3% identify as Asian, 6% identify as Black, 11% identify as other, and 78% identify as White. Most of the participants, 86%, identified as female. Males represent 14% of the sample. Forty-four percent of the total participated in FAST. Table 4 indicates comparable teacher demographics from by the National Center for Education Statistics (Taie & Goldring, 2018).

Table 3

*Demographics of Population (N)*

| Demographic | | % of *N* | Total *N* *152* |
|---|---|---|---|
| Race | | | |
| | Asian | 3% | 5 |
| | Black | 6% | 9 |
| | White | 78% | 119 |
| | Native/Hawaiian | 1% | 2 |
| | Other Race | 11% | 17 |
| Origin | | | |
| | Identify as Hispanic | 19% | 36 |
| Group | | | |
| | Control | 56% | 85 |
| | FAST Participant | 44% | 67 |
| Gender | | | |

| | | |
|---|---|---|
| Male | 14% | 21 |
| Female | 86% | 131 |

Table 4

*Demographics of U.S. Public School Teachers 2015-2016(N)*

| | % of *N* | Total *N 3,827* |
|---|---|---|
| Race/ Ethnicity | | |
| Asian | 2% | 86 |
| Black | 7% | 256 |
| White | 80% | 3,067 |
| Native/Hawaiian | .6% | 26 |
| Two or More Races | 1% | 54 |
| Hispanic | 9% | 338 |
| Gender | | |
| Male | 23% | 897 |
| Female | 77% | 2,930 |

*Note.* Reprinted [adapted] from Characteristics of Public Elementary and Secondary School Teachers in the United States: Results From the 2015–16 National Teacher and Principal Survey, by Taie, S., and Goldring, R., retrieved from http://nces.ed.gov/pubsearch/pubsinfo.ap?pubid=2017072rev Copyright 2018

The descriptive statistics of the sample are included in Table 5 below.

Table 5

*Descriptive Statistics*

| **Independent variables** | Mean | Std. Deviation | *N* |
|---|---|---|---|
| Support | 3.0559 | 0.7359 | 152 |
| Environment | 3.1332 | 0.54908 | 152 |
| Satisfaction | 3.0036 | 0.53698 | 152 |
| Interaction | 2.6798 | 0.59909 | 152 |
| FAST program | 0.4418 | 0.47932 | 152 |
| **Dependent variables** | | | |
| Conduct | 6.4009 | 2.01681 | 152 |
| Hyperactivity/Inattention | 8.4292 | 2.57331 | 152 |
| Emotional | 6.6295 | 1.82518 | 152 |

| | | | |
|---|---|---|---|
| Peer | 1.3074 | 0.28869 | 152 |
| Prosocial | 2.4356 | 0.46382 | 152 |
| **Control variables** | | | |
| Relationship with Parents | 4.1893 | 0.76521 | 152 |
| Parent Attendance | 3.4982 | 0.75368 | 152 |

Table 5 Continued

| **Control variables** | Mean | Std. Deviation | *N* |
|---|---|---|---|
| Parent Involvement | 3.5398 | 0.77528 | 152 |
| Parent Communication | 2.1297 | 0.68057 | 152 |
| Gender | 0.1382 | 0.34621 | 152 |
| Hispanic | 0.1974 | 0.39933 | 152 |
| Asian | 0.1118 | 0.31621 | 152 |
| Black | 0.7829 | 0.41364 | 152 |
| Other | 0.0592 | 0.2368 | 152 |
| Native American/ Hawaiian | 0.0132 | 0.11433 | 152 |

## Evaluation of Statistical Assumptions

I used an Ordinary Least Square Regression to assess the correlation between the dependent variables and the covariates. Assumptions associated with the OLS model were tested including independence of observations, absence of multicollinearity, linearity, and homoscedasticity.

First, I used a Durbin-Watson test to assess independence of the residuals for the five models. Results show minimal evidence that residuals are correlated as indicate by Durbin- Watson statistics slightly above or below 2.0 (see Table 6). A value near 2.0 indicates non-autocorrelation. A value near 0 indicates a positive autocorrelation.

Table 6

| *Durbin Watson* | |
|---|---|
| Peer | 1.997 |
| Emotional | 1.939 |

| | |
|---|---|
| Prosocial | 1.659 |
| Hyperactivity/ Inattention | 2.006 |
| Conduct | 1.893 |

Second, an OLS model assumes the absence of multicollinearity, which means that predicting variables are not correlated with each other. Correlation among independent variables can negatively affect the fit of the model and bias the standard errors. Multicollinearity was assessed using Variance Inflation Factors (VIF). VIF values over ten suggest the presence of multicollinearity. Tolerance value below 0.1 also suggests the presence of multicollinearity. Table 7 shows that all variables meet the multicollinearity assumption.

Table 7

| *Collinearity Statistics* | | |
|---|---|---|
| | Tolerance | VIF |
| (Constant) | | |
| Support | 0.524 | 1.91 |
| Environment | 0.475 | 2.105 |
| Satisfaction | 0.603 | 1.658 |
| Interaction | 0.659 | 1.517 |
| Native | 0.941 | 1.062 |
| Male =1 | 0.872 | 1.146 |
| Hispanic | 0.64 | 1.563 |
| FAST_mean | 0.897 | 1.115 |
| Asian | 0.935 | 1.069 |
| Black | 0.921 | 1.086 |
| Other | 0.622 | 1.609 |
| Parent Involvement | 0.411 | 2.431 |
| Parent Communication | 0.471 | 2.123 |

| | | |
|---|---|---|
| HW/Reading | 0.351 | 2.851 |
| Parent Relationship | 0.367 | 2.721 |
| Parent Attendance | 0.559 | 1.789 |

Third, a series of P-Plots was used to assess normality. The P-Plots below indicate that normality was met for all models as although the points are not aligned perfectly, they are close enough to the line indicating that they are normally distributed.

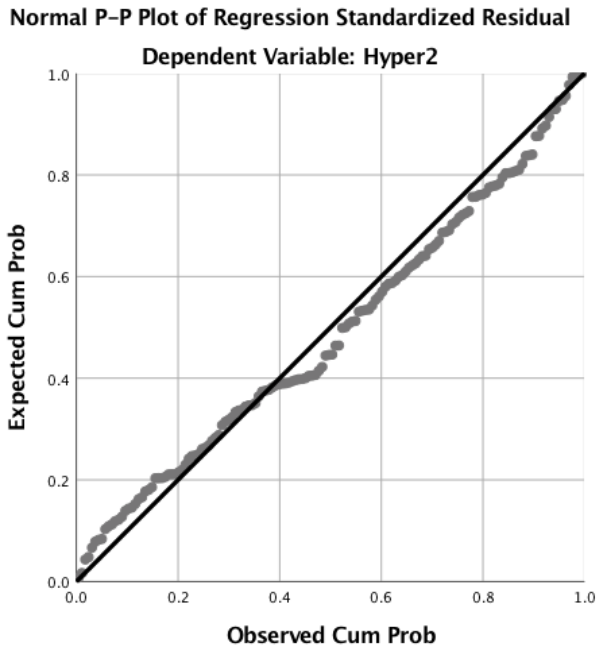


Figure *1*. Hyperactivity/ Inattention P-Plot.

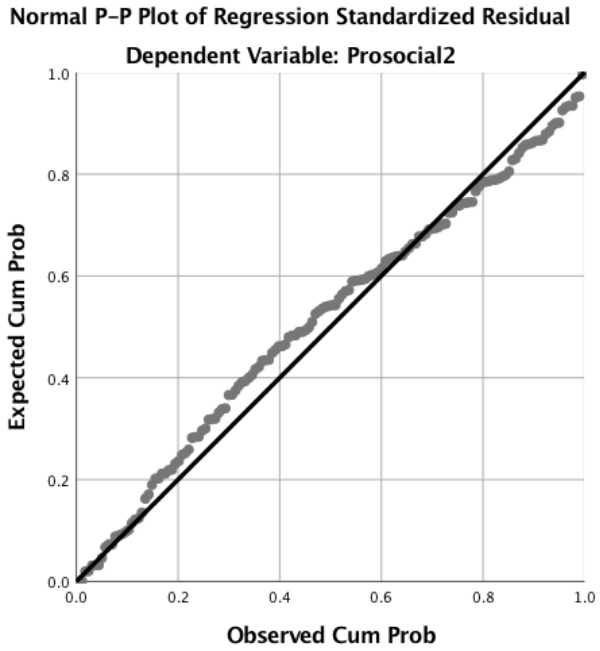


Figure *2.* Prosocial behavior P-Plot.

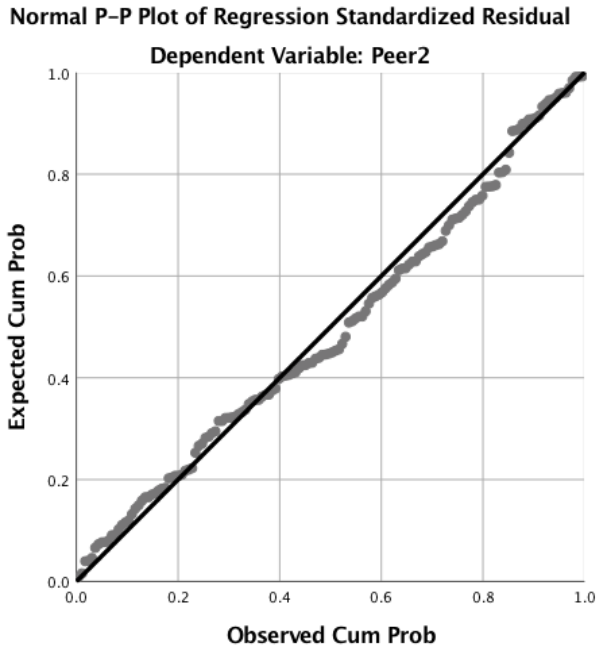


Figure *3.* Peer P-Plot.

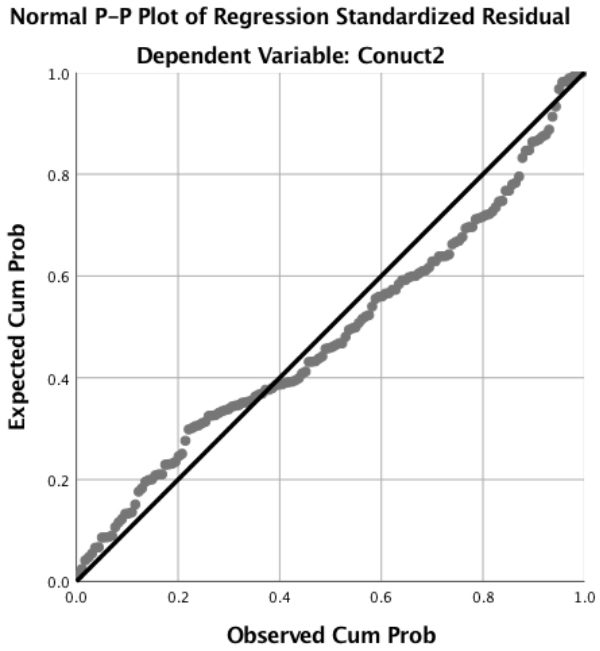


Figure *4.* Conduct P-Plot.

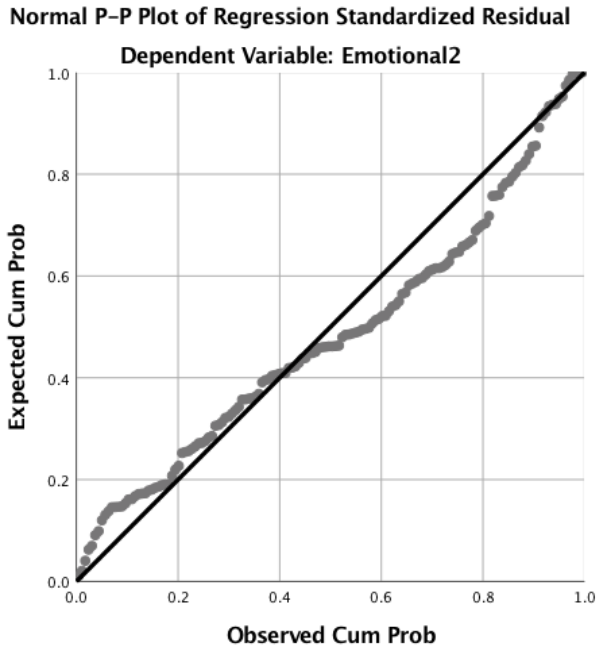


Figure *5.* Emotional behavior P-Plot.

Finally, the results of the scatterplots indicated that residuals did not meet the assumption of homogeneity of variance (homoscedasticity). The residuals did not show an even spread. Heteroscedasticity affects the estimation of the standard errors increasing the risk of rejecting the null hypothesis even when it is true. However, since the results were not statistically significant running the regression with or without robust standard errors did not affect the analysis.

**Statistical Analysis Findings**

To answer the research question, I used an Ordinary Least Square (OLS) regression to assess if the administrator support and FAST intervention variables (independent) predict the student behavior variables (dependent). For my research, an OLS regression was appropriate because it is used to analyze the relationship among a set of dichotomous, ordinal, or interval/ratio predictor variables on an interval/ratio criterion variable ("Multiple regression in SPSS Statistics", 2018). All independent and control variables (predictors) were concurrently added into the model using the standard method. Variables were assessed by what they contribute to the prediction of the dependent variable which is different from the predictability afforded by the other predictors in the model (Laerd Statistics, 2018). In this instance, the independent variables include administrator support and FAST group, and the dependent variable is student behavior.

The following regression equation (main effects model) was used:

$$Student\ behavior = \beta_0 + \beta_1 Support + \beta_2 Fast\ Intervention + \beta_{5-10} Control + \varepsilon +$$

The results are reported below in Table 8, including unstandardized coefficients (*B*), standard errors (SE) reported in parenthesis below the coefficient, number of observations, and adjusted *R* squared. The probability values are indicated using the following symbols a) *** $p < .001$, b) ** $p < .01$, c) * $p < .05$.

Table 8

*Results of the Regression Analysis*

| | **Conduct** | **Hyperactivity/ Inattention** | **Emotional Behavior** | **Peer Behavior** | **Prosocial Behavior** |
|---|---|---|---|---|---|
| | ***B* (SE)** | ***B* (SE)** | ***B* (SE)** | ***B* (SE)** | ***B* (SE)** |
| (Constant) | 10.02*** (1.26) | 13.12*** (1.66) | 7.205*** (1.241) | 7.724*** (0.932) | 3.139* (1.602) |
| **Independent variables** | | | | | |
| Support | -0.26 (0.24) | -0.05 (0.31) | 0.257 (.233) | -.001 (.175) | .067 (.302) |
| Environment | 0.25 (0.33) | 0.18 (0.44) | 0.312 (.328) | .076 (.247) | .339 (.424) |
| Satisfaction | -0.34 (0.30) | -0.22 (0.4) | -0.076 (.298) | -.317 (.224) | .33 (.385) |
| Interaction | -0.28 (0.26) | -0.22 (0.34) | -0.307 (.256) | -.12 (.192) | .151 (.33) |
| FAST program | 0.01 (0.28) | -0.35 (0.37) | -0.198 (.274) | -.318 (.206) | -.013 (.354) |
| **Covariates** | | | | | |
| Relationship with Parents | -0.53 (0.27) | 0.33 (0.36) | -.302 (.268) | -.463* (.201) | .579 (.346) |
| Parent Attendance | -0.03 (0.22) | 0.13 (0.30) | -.213 (.221) | .1 (.166) | .19 (.285) |
| Homework and Reading | -0.63* (0.26) | -0.97** (0.34) | -.304 (.256) | -.049 (.192) | .437 (.33) |
| Parent Involvement | 0.13 (0.25) | -1.13*** (0.33) | -.19 (.25) | -.099 (.188) | .775* (.323) |
| Parent Communication | 1.07*** (0.27) | 0.96** (0.36) | 1.305 (.266) | 0.918 *** (.2) | -.559 (.344) |
| Gender/Male | 0.23 (0.39) | 0.33 (0.52) | -.325 (.384) | .284 (.289) | -.084 (.496) |
| Hispanic | -0.59 (0.40) | -0.62 (0.52) | -.479 (.389) | .012 (.292) | .541 (.503) |
| Asian | 0.68 (0.73) | 0.21 (0.96) | -.249 (.718) | .406 (.54) | .327 (.928) |
| Black | 0.82 (0.56) | 1.45* (0.73) | -.245 (.547) | .419 (.411) | -.399 (.707) |
| Other | 1.32 (0.51) | 0.80 (0.67) | .27 (.499) | .807 * (.375) | -.446 (.644) |
| Native | -1.25 (1.14) | -0.98 (1.5) | -.798 (1.121) | -.321 (.842) | 1.275 (1.448) |
| **Observation** | **152** | **152** | **152** | **152** | **152** |
| ***R* Squared** | **0.406** | **0.367** | **0.3** | **0.368** | **0.308** |

*** $p < .001$; ** $p < .01$; * $p < .05$
Reference categories: Male, Hispanic, White, Native

The *F* statistics of each model show that the regression is a good fit ($p < .0005$). The *R*- squared explains the percentage of variability in student behavior that is explained by the covariates. For the first model, Conduct, the *R* squared is .40. For the second model, Hyperactivity/ Inattention, the *R* Squared is .36. For the third model, Emotional Behavior, the *R* squared is .30. For the fourth model, Peer Behavior, the *R* squared is .36. For the fifth model, Prosocial behavior, the *R* squared is .31. Overall, the models explain between 31% and 40% of the variance of the dependent variable.

The probability value for each coefficient tests the null hypothesis that the variable does not correlate with the dependent variable; in other words, it tests whether the coefficient is statistically different from zero (null hypothesis). The beta coefficients indicate the magnitude of the relationship between each independent variable and the outcome variable. Results for each research question are discussed next. The questions are presented in the order of analysis.

**RQ3. Administrator support and student behavior.** The hypothesis $H_o1$ states that "Third-grade teachers' perceptions of administrator support do not predict the teachers' perceptions of student behavior in the classroom." Results from the OLS models in Table 8 shows there is no significant correlation between perceptions of administrator support and perceptions of student behavior. The lack of statistical significance for all the variables measuring perceptions of administrator support (Support, Environment, Satisfaction, and Interaction) suggest that the null hypotheses

cannot be rejected at the .05 level. This indicates that teachers' perceptions of administrator support are not correlated with teachers' perceptions of student behavior.

**RQ2. FAST intervention.** The hypothesis Ho1 states that "The FAST intervention does not predict third-grade teacher's perceptions of student behavior in the classroom." Results from the OLS models (table 8) show there is no significant correlation between being part of the FAST intervention and perceptions of student behavior in the classroom. The FAST program variable is not statistically significant in any model ($p > .05$). The lack of statistical significance indicates that the null hypothesis cannot be rejected at the .05 level. This suggests that the FAST program is not correlated with teachers' perceptions of student behavior.

**RQ1. Administrator support, FAST, and student behavior.** The hypothesis $H_o1$ states that "Third-grade teachers' perceptions of administrator support and the FAST intervention group compared to the control group does not predict teachers' perceptions of student behavior in the classroom." Overall, results from the OLS models in Table 8 show that neither FAST intervention nor perceptions of administrator support are significantly correlated with perceptions of student behavior in the classroom ($p > .05$). Because of the lack of statistically significant direct effects, we can assume that the interaction term will also not be statistically significant. We conclude that the FAST intervention does not increase the effect of perception of administrator support on perceptions of student behavior.

**Covariates.** Analysis of the covariates reveals statistical significance suggesting that teachers' perceptions of parents' behavior and teacher race affected perceptions of

student behavior. The results are reported below and can be referenced in Table 8. The full model results, including confidence intervals and *t* values are reported in Appendix B. Chapter 5 includes additional discussion of the results.

In the Conduct model, teachers' perception of parents' involvement in homework and reading negatively affected Conduct ($b = -.63$, $p < .01$). By contrast, teachers' perceptions of parent communication positively affected conduct ($b = 1.07$, $p < .001$). A teacher's race also affected perceptions of students' conduct; teachers who identified as "other" (e.g., mixed race teachers) reported higher perceptions of students' conduct compared to white teachers ($b = 1.32$, $p < .01$).

In the Hyperactivity/Inattention model, Homework and Reading, Parent Involvement, and Parent Communication significantly affected teachers' perceptions of students' hyperactivity and inattention. Parent Involvement ($b = -1.13$, $p < .001$) and Homework and Reading ($b = -.9$, $p < .01$) had a negative effect. While Parent Communication had a positive effect ($b = .96$, $p < .01$). The model also showed that black teachers reported higher perceptions of students' hyperactivity and inattention as compared to white teachers ($b = 1.45$, $p < .05$).

In the Emotional behavior model, Parent Communication significantly affected teachers' perceptions of students' emotional behavior. Parent Communication had a positive effect ($b = 1.305$, $p < .001$).

In the Peer behavior model Relationship with Parents and Parent Communication significantly affected teachers' perceptions of students' peer behavior. Relationship with Parents had a negative effect ($b = -.463$, $p < .05$). While Parent Communication had a

positive effect ($b = .918$, $p < .001$). The model also shows that teachers who identified as "other" (e.g., mixed race teachers) reported higher perceptions of students' peer behavior compared to white teachers ($b = .807$, $p < .05$).

In the Prosocial Behavior model, Parent Involvement significantly affected teachers' perceptions of students' prosocial behavior. Prosocial behavior had a positive effect ($b = .775$, $p < .001$).

## Summary

In this chapter, I presented details of the study. I began with a review of the research question, and then described the sample of the study. I described the participants, demographic details, data collection procedures, and data analysis strategies. Finally, I presented the results of the study.

In summary, the OLS analysis was used to analyze a sample of 152 observations. The data analysis answered the research questions by indicating that student behavior is not predicted by teachers' perceptions of administrator support. These analyses confirmed all of this study's null hypotheses. There were no significant correlations between administrator support and student behavior. However, a discussion of the correlations between perceptions of parent behavior and student behavior are included in Chapter 5 as additional findings. My interpretation of these findings in contained in Chapter 5. Also, Chapter 5 will include the limitations of the study and a discussion of recommendations for further research. The chapter concludes with a description of the implications of the study for a positive social change, implications for knowledge in the discipline of educational leadership, and recommendations for practice.

# Chapter 5: Discussion, Conclusions, and Recommendations

## Introduction

Existing studies into administrator support in schools have left a gap in the literature in the areas of student behavior and school-wide behavior intervention programs. The purpose of this quantitative, quasi-experimental study was to examine the extent of the relationship among third-grade teachers' perceptions of administrator support, the FAST school-wide behavioral intervention program, and teachers' perceptions of student classroom behavior. I conducted this study using archival data originally collected from Phoenix, Arizona Title 1 schools.

The independent variables were teacher Likert scale survey scores of administrator support and FAST program intervention. The dependent variable was student behavior as measured by teachers' responses on a Likert scale by Goodman's (2001) Strengths and Difficulties Questionnaire (SDQ). A sample of 152 teachers' responses were analyzed using Ordinary Least Squares Regression methods to assess the differences among teachers' reports of administrator support, teachers' reports of child behavior, and the potential influence of the FAST intervention to potentially inform school districts and programs such as FAST.

The results of this study indicated that teachers' perceptions of administrator support and the FAST program do not significantly predict perceptions of student behavior. My additional analysis of the parent involvement covariates indicated teachers' perceptions of parents' involvement significantly predicted their perceptions of student behavior. The importance of teachers' relationships with parents is consistent with

previous literature (Shoji et al., 2014). Future researchers may be encouraged to dig deeper into which leaders, practices, and programs affect student behavior upon examining the results of the present study.

In this Chapter, I will provide further discussion of the interpretation of the findings related to each variable and the research questions. I will include recommendations for future research based on the analysis. This chapter will conclude with a presentation of the possible implications of the study results for social change.

## Interpretation of the Findings

Statistical results for RQ2 and RQ3, which focused on administrator support and the FAST group as predictors of student behavior were set at $p < .05$ and were not statistically significant. Therefore, I was not able to reject the null hypothesis for RQ2 and 3. The results indicate that the model cannot be used to predict the influence of administrator support on teachers' perceptions of student behavior in third-grade students or the influence of the FAST program.

Statistical results for RQ1, which focused on the interactions between administrator support, FAST, and student behavior were not statistically significant. Therefore, I was not able to reject the null hypothesis for RQ1. This means that the model cannot be used to test an interaction between teachers' perceptions of student behavior in third-grade students and the FAST program. The findings of the OLS analyses indicated a lack of significance in the relationship between administrator support, FAST program, and perceptions of student behavior. The findings extend the literature and are discussed further below.

**Student Behavior**

The literature suggests student behavior influences student success and school climate (Dufur et al., 2015; Sanzi, 2018). The findings of the present study suggest teachers' perceptions of administrator support do not affect their perceptions of students' behavior. The inclusion of administrator support and inner-city populations for the present study offered a new perspective and extends the body of knowledge. Broekhuizen et al. (2016) used a regression analysis and the SDQ instrument similar to the present study in a rural population and found no significant link between instructional classroom quality and children's social skills in first grade. Although research indicated classroom behavior problems had increased in classrooms across the United States (Scholastic Inc., 2013) my study suggests administrator support is not the cause. Based on the inconclusive results of my study I can rule out the current hypotheses and pose further questions for what types of administrator support affects students and whether support and student behavior are different in private, charter, or higher socioeconomic student populations.

**Administrator Support**

The present study included items of administrator support and extended the literature by providing a framework for testing the relationship with student behavior. The findings suggest that teachers' perceptions of student behavior are not affected by administrator support but are affected by perceptions of students' parents. However, researchers found in previous work that principal support including indicators of teacher autonomy, administrator relationships with the teacher, proximity to principal, materials,

and school environment are critical factors in teachers' happiness and retention (Battle & Looney, 2014; Russell et al., 2010; Song & Alpaslan, 2015). Further analyses are recommended to analyze the retention rate and overall satisfaction of the teacher sample. Given the prior literature, it is reasonable to consider that administrators have an effect on the overall school climate and that satisfied teachers may be more likely to separate their perceptions of administration from relationships with students. More questions could be posed about whether teachers consistently separate relationships with administrators from relationships with students. Supplementary data could be used to analyze what types of teachers' experiences with student behavior affect teacher happiness and retention. Additional studies could test teachers' responses regarding the presence of administrator support compared to school disciplinary reports.

Researchers have previously indicated that administrators have a positive influence on schools (Kiema, 2015; Pina et al., 2015). Researchers indicated the biggest influence of administrators is in building positive relationships with teachers (Yeung et al., 2016). It is reasonable to conclude that administrators' support practices still affect many other areas of the school climate. Additional data could be examined to find out how administrators' relationships with students affect students' success. Future researchers could use these data and compare the results to additional studies including administrator, teacher, and student responses.

**FAST Intervention**

The results of this analysis indicated that FAST participation was not a predictor of teachers' perceptions of student behavior. In comparison to other investigators of the

archival data parent responses indicated a decrease in negative student behaviors when analyzed using both the Arizona and Texas populations (Turley et al., 2017). Researchers have found positive results in other intervention programs when including discipline outcomes programs that were implemented school-wide (Childs et al., 2016; & Freeman et al., 2016). In this study, I did not evaluate the quality of the schools, but Childs et al. (2016) noted that schools with higher benchmarks of quality have lower amounts of disciplinary action. Childs et al., also found a significant correlation between implementation or lack of intervention implementation and the classroom and suggested greater support is needed for teachers to implement and achieve a high level fully. Additionally, Taylor et al. (2017) examined schools and students that participate in school-based social and emotional learning interventions serving within the United States and internationally and reported greater social-emotional skills, attitudes, and indicators of well-being than the control group. Given the results of the present study and previous research, it is logical to posit that the lack of school-wide implementation and fidelity for which the FAST program was implemented influenced the insignificant results.

**Covariates: Parent Relationship and Teacher Race**

The covariates for teachers' perceptions of parents, Black race, and other races were the only significant predictor variables of student behavior, suggesting that teachers' perceptions of parents and in some cases teacher race predict teachers' perceptions of student behavior. The results were reported in Chapter 4 statistical analyses sections. Teachers' perceptions of parents' participation for the variables (a) homework and reading and (b) parent communication were significant predictors of students' conduct

behaviors. Teachers' perceptions of parents' participation for the variables (a) homework and reading, (b) parent involvement, and (c) parent communication were significant predictors of students' hyperactivity/inattention behaviors. Teachers' perceptions of parent communication were significant predictors of students' emotional behavior. Teachers' perceptions of the variables (a) relationship with parents and (b) parent communication were significant predictors of students' peer behavior. Teachers' perceptions of parent involvement were significant predictors of students' prosocial behavior. Teachers identifying as other races were significant predictors of students' conduct behaviors and peer behavior. Teachers identifying as Black were significant predictors of students' hyperactivity/inattention behaviors.

The current study findings, that teachers' perceptions of parents predicted teachers' perceptions of student behavior, are a logical connection to previous research on classroom teachers, student behavior, and social capital. The analyses are consistent with Gamoran's research that FAST increased parental engagement within the school and reports of interactions between families and stakeholders (2015). Turley et al. (2017) used the data from the Social Capital and Children's Development project to analyze the causal relationships between social capital, families, schools, and the behavior of children in the home. Capital developed by parents increases parent engagement, and more informed parents are more able to advocate for their children. Toppelberg et al. (2013) found that children's mental health and therefore behaviors were influenced when parents' abilities to advocate increased. It is a logical conclusion that teachers' perceptions of parents may influence perceptions of student behavior and that parents'

ability to advocate for their child influences both their relationship with the teacher and behavior of the child.

**Findings Related to the Theoretical Framework**

For this study, I used Spillane's (2005) theory of distributed leadership as a framework because the literature suggested that supportive leadership from administrators would strengthen teachers and, in turn, positively affect student behavior. Spillane's research demonstrated that supportive principals engage with teachers by offering meaningful professional development, offering encouragement, supplying adequate resources, and fostering autonomy in the development of classroom teaching strategies and behavior management policies. According to Hairon and Goh (2015), distributed leadership has taken the lead in education as an effective process for positively affecting the school environment, climate, and teaching practices. It can be hypothesized that distributed leadership practices fostered a neutral climate leading to insignificant results though no relationship was found between administrator support and student behavior. If teachers' felt they had autonomy to make decisions and parents felt they had a leadership role both at home with their child and in the school, the climate may not have been significantly affected by administrators or the survey questions may not have been specific enough to measure the effects.

Spillane's theory of distributed leadership explains that administrators, teachers, parents, and students share the responsibilities and leadership roles in the educational environment. In the context of the theoretical framework, the data indicate that parent, teacher, and intervention programs make a difference but that the administrator does not

predict teachers' perceptions of student behavior. The findings of the present study build upon existing constructs of distributed leadership theory by encouraging researchers to further question the effectiveness of administrator support practices and the influence of the administrator as a primary facilitator of distributed leadership.

The data sample included information on teachers' perceptions of administrator support practices and students' behavior as well as data indicating how many students interacted with the FAST intervention program. Data on teachers' perceptions of parent involvement data were included as a covariate because previous research indicated that parent involvement might affect teachers' relationships with students. The research questions relate to distributed leadership theory, challenge traditional leadership frameworks, and fit into intervention programs such as FAST by illustrating practices that involve multiple leaders and focus on situations specific to the current stakeholders. The theory, when applied to practices of administrator support, indicates that teachers' perceptions could influence situations of students' behavior. The data indicated that teachers' perceptions of parents predicted students' behavior. About distributed leadership theory, this could indicate relationships between teachers and parents and that the teachers perceive parents as leaders for their children. These relationships are consistent with Gamoran's analysis of these data in the social capital research study and Spillane's suggestion that building capital develops relationships among stakeholders (Spillane, 2012).

## Limitations of the Study

Limitations of a study are characteristics of the design that can influence the interpretation of the findings. Identifying the limitations improved the credibility of the study. One limitation of this study was the use of archival data (historical or *ex post facto*) based on a sample of public elementary school third-grade teachers who taught in Phoenix, Arizona for the 2011–2012 school year. I only accessed archival data for this study. There may be unknown conditions or factors within the study schools that are not available for analysis. However, I confirmed that Dr. Gamoran et al. (2013), the primary researcher, followed institutional review board procedures, and it can be assumed this limitation was met through proper procedures. Walden IRB approved the present study.

The convenience sampling of public elementary third-grade teachers at Title 1 schools in Phoenix, Arizona that was used was a threat to internal validity. An external threat to validity is that the generalization of the findings may be decreased because the sample is limited to participants in a single state. These limitations were met in the archival data by including in the sample only participants who met the criteria teaching at a FAST school and having a student who participated in the FAST program in their classroom or teaching at a control school. Future additional experiments in other settings would improve validity.

I have had no previous connection with the FAST program, primary investigator, or any school that utilizes FAST. I chose the data set because FAST is widely used research-based intervention and the primary investigators included variables of administrator support and student behavior in the data collection. I provided additional

information about FAST and threats to the research validity was addressed in Chapter 2 and did not alter this information during the analysis process.

## Recommendations

There are several recommendations based on the results of this study to consider. Future research may include the perceptions of all elementary school stakeholders including teachers, administrators, students, and parents. The perceptions of administrator support needs and positive classroom behavior could vary between early childhood and middle school grades. Phoenix, Arizona, where sample schools were selected, had 30 school districts, but only three participated in this study. The small sample size may have compromised the power of the statistical test employed in the study. Increasing the number of districts involved in the study might yield different results. Increasing the sample size could involve other states and yield more valid and reliable results.

In this study, I did not seek to determine the extent to which teacher demographics (e.g., differences in race, gender, years of experience and educational preparation) or school and district demographics (e.g., geographic location, size, and racial composition) might have affected the relationship between administrator support and student behavior. Further studies could emphasize the relationship between administrator support and student behavior by comparing Phoenix, Arizona third-grade teachers' results with teachers in other states using a more diverse sample population. Future studies could include a cross-analysis of student behavior between teacher race and student race. Ideally, data on administrators race and experience would be

incorporated. Data would be analyzed for differences or issues in supportive practices that enable administrators and staff to affect students positively.

## Implications

This study provides insights into administrator support and student behavior which may benefit students, teachers, administrators, and future intervention programs. The hypotheses, although not supported, may add to the research on supportive school leadership practices and increase knowledge about how administrator support of teachers influence students' behavior. Schools function with the input of students, parents, teachers, and administrators (Day et al., 2016). Earlier studies have analyzed the interactions between parents, teachers, and students (Fiel et al., 2013; Gamoran, 2015; Turley et al., 2017) and the results of this study are consistent with previous findings indicating that perceptions of parents predict perceptions of students. This study is meaningful because it adds to the literature and provides a unique contribution by including administrator practices and determining that interaction does not exist between teacher reports of administrator support, the FAST program, and student behavior.

### Social Change

Walden University defines social change as, "A deliberate process of creating and applying ideas, strategies, and actions to promote the worth, dignity, and development of individuals, communities, organizations, institutions, cultures, and societies" ("Social Change", 2017). The implications for positive social change consistent with this analysis of interactions between teachers' perceptions of administrator support and student behavior within the FAST intervention in a Title 1 population include increasing

knowledge of effective practices for school leaders to improve the human and social conditions for all stakeholders within the educational system. The analysis indicated that the current administrator support practices tested do not affect teachers' perceptions of student behavior in the current population. The additional significant findings related to teachers' perceptions of parents and student behavior are consistent with previous findings and promote the continued development of the relationships between teachers and families for positive student behavior.

The results of my study can be applied and used to guide future research by developing additional hypotheses about the types of support that may affect student behavior, intervention types, and including administrators as participants. Previous research has largely been focused on academic achievement. Further research could be done with more directed questions regarding how teachers perceive administrators affect their ability to manage student behaviors. Educational stakeholders and researchers will benefit from my findings by implementing sound procedures in future research and isolating responses from administrators. Specifically, stakeholders will benefit from my results by asking additional questions about how the FAST program affects schools and how administrators engage with the intervention. Researchers will benefit from my results by adding additional variables and replicating the processes. Positive social change outcomes include an increase in administrators' understanding of the influence of supportive behaviors or lack of influence among administrators, teachers, and students. Additional focus on supportive leadership practices within FAST, future principal leadership, and professional development programs within Phoenix, Arizona Title 1

schools could positively influence the behaviors of students by addressing classroom behavior, delinquency, and mental health concerns (Mowen & Brent, 2016; Pina et al., 2015).

## Conclusion

Researchers have posited in multiple studies that teachers who report higher ratings of principal leadership, levels of trust, and engagement are more active in their schools and are likely to continue teaching at the same school (Breaux, 2012; Brezicha et al., 2015; Hughes et al., 2014). The converse is also found in the literature. Schools and students are negatively influenced by a deficiency of supportive school leadership (Lydersen & Brown, 2016). In this study, I sought to address the problem of the relationships among administrator support, the FAST behavioral intervention program, and student classroom behavior. Lack of administrator support practices may present challenges to teachers and students. Further research is needed to accurately identify the challenges.

Results of this study were inconclusive, and the lack of statistical significance indicated that the null hypotheses could not be rejected. However, analysis of covariates, teachers' perceptions of parent involvement indicated a relationship with teachers' perceptions of student behavior and confirmed prior research. A lack of significance between the variables may be an indication that regardless of teachers' feelings about administrator support or participation in the FAST program their perceptions of their students are not affected. Teachers' consistent perceptions of students is a positive notion for school administrators who rely on teachers to manage student behavior and maintain

high academic achievement. Lack of significance may also be an indication of a need for a larger sample, longitudinal design, or additional participants. My recommendations are to complete additional studies analyzing the administrator support practices in Title 1 schools throughout the United States. Conclusions can be made that further studies are needed to include responses from administrators and more information on the administrative practices in the sample schools.

As administrators will continue to be vital to the success of schools, this study is important to researchers and educational stakeholders who make decisions about programs and practices and are responsible for student outcomes. These findings may increase administrators' understandings of the influence of supportive behaviors between administrators, teachers, and students and encourage continued development of effective practices for school leaders to improve the human and social conditions for all stakeholders within the educational system. Further consideration of the many ways administrators influence education contributes to social change by engaging school stakeholders and emboldening future leaders and learners to build supportive relationships that foster positive social and emotional growth.

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Appendix A: Teacher Questionnaires

ICPSR | INTER-UNIVERSITY CONSORTIUM FOR POLITICAL AND SOCIAL RESEARCH

ICPSR 35481

# Social Capital and Children's Development: A randomized controlled trial conducted in 52 schools in Phoenix and San Antonio, 2008-2013

Adam Gamoran
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Teacher Questionnaires (English)

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**1. Are you male or female?**

- ○ Male
- ○ Female

**2. Are you of Hispanic or Latino origin?**

- ○ Yes
- ○ No

**3. What is your race?** ***Please check all that apply.***

- ○ American Indian or Alaska Native
- ○ Asian
- ○ Black or African American
- ○ Native Hawaiian or ~~Other~~ Pacific Islander
- ○ White
- ○ Other, please specify

**4. How would you classify your teaching position?** ***Please check only one answer.***

- ○ Regular full-time teacher
- ○ Regular part-time teacher
- ○ Substitute teacher
- ○ Itinerant teacher
- ○ Other, please specify

**5. Do you speak any languages other than English?**

- Yes
- No **Go to question 6**

**5a. What is the main other language that you speak?**

**6. How many years have you worked as a full-time teacher in any public or private school at any grade level or program?**

- ◯ This year
- ◯ Two years
- ◯ Three years
- ◯ Four years
- ◯ Five years or more, please specify

**7. How many years have you held your current position at this school?**

- ◯ This year
- ◯ Two years
- ◯ Three years
- ◯ Four years
- ◯ Five years or more, please specify

**8. How many years have you worked at this school in any teaching position?**

- ◯ This year
- ◯ Two years
- ◯ Three years
- ◯ Four years
- ◯ Five years or more, please specify

| **9. How many years have you worked at this school in any teaching position? Please include part-time teaching. Write "0" if you have never taught the grade or program listed.** | |
|---|---|
| **a.** Early childhood (Pre-K, Head Start, Birth-3 Programs) | ☐ years |
| **b.** Elementary school | ☐ years |
| **c.** Middle or high school | ☐ years |
| **d.** English as a Second Language Program | ☐ years |
| **e.** Bilingual education program | ☐ years |
| **f.** Special education program | ☐ years |
| **g.** Other, please specify | ☐ |

**10. What type of teaching certification do you have?**

- ◯ None
- ◯ Temporary, probational, provisional, or emergency certification
- ◯ Certificate for completion of an alternative certification program
- ◯ Regular certification
- ◯ National Board certification or other advanced certification

**11. Please indicate the extent to which you agree with each of the following statements about your school's environment.**

| | Strongly disagree | Disagree | Agree | Strongly agree |
|---|---|---|---|---|
| a. There is broad agreement among the entire school faculty about the central mission of the school. | ◯ | ◯ | ◯ | |
| b. The school administrator deals effectively with pressures from outside the school (for example, budget, parents, school board) that might otherwise affect my teaching. | | | | |
| c. The school administration's behavior toward the staff is supportive and encouraging. | | | | |
| d. The principal lets staff members know what is expected of them. | | | | |
| e. The academic standards at this school are too low. | | | | |
| f. Necessary materials such as textbooks, supplies, and copy machines are available as needed by staff. | ◯ | ◯ | ◯ | |
| g. In this school, teachers are continually learning and seeking new ideas. | | | | |
| h. The level of student misbehavior in this school (such as noise, horseplay, or fighting in the halls or cafeteria) interferes with my teaching. | | | | |
| i. Overall, parental involvement at this school is high. | | | | |
| j. The school has well-defined learning expectations for all students. | | | | |

| 12. Please indicate the extent to which you agree with each of the following statements about your experience at this school. | Strongly disagree | Disagree | Agree | Strongly agree |
|---|---|---|---|---|
| a. I am generally satisfied with being a teacher at this school | | | | |
| b. I am certain I am making a difference in the lives of the children I teach. | | | | |
| c. I am satisfied with my class size. | ○ | ○ | ○ | ○ |
| d. I have a great deal of control in selecting instructional materials and methods | | | | |
| e. I have a great deal of control in selecting classroom management strategies. | | | | |
| f. Many of the children I teach are not capable of learning the material, I am supposed to ○ teach them. | ○ | ○ | ○ | |
| g. I am satisfied with my teaching salary. | ○ | ○ | ○ | ○ |

| 13. Please indicate the extent to which you agree with each of the following statements about families of the students in your classroom. | Strongly disagree | Disagree | Agree | Strongly agree |
|---|---|---|---|---|
| a. Overall, parental involvement in my classroom is high. | | | | |
| b. I have developed strategies to get parents to be involved in homework time after school (such as homework planners or needing parent's signatures on work). | | | | |
| c. I enjoy meeting with parents on days other than planned parent-teacher conferences. | ○ | ○ | ○ | ○ |
| d. I believe that working with parents is worth the time and effort I invest. | | | | |
| e. Parents of students in my classroom understand the value of working with their ○ children on homework. | ○ | ○ | ○ | |
| f. I encourage parents to visit or volunteer in the classroom. | | | | |

Teacher ID:_____ Student ID: _____

**Teacher Questionnaire**

Children, Families & Schools

| 1. Some of these items ask for facts, some for professional judgment, and others for your opinion. Please rate the child's parent(s) on each of the following statements. | Strongly Disagree | Somewhat Disagree | Neither Agree nor Disagree | Somewhat Agree | Strongly Agree |
|---|---|---|---|---|---|
| a. This parent treats me with respect. | ○ | ○ | ○ | ○ | ○ |
| b. I feel comfortable talking to this parent. | ○ | ○ | ○ | ○ | ○ |
| c. This parent and I have a good parent-teacher relationship. | ○ | ○ | ○ | ○ | ○ |
| d. I trust this parent to follow through on requests. | ○ | ○ | ○ | ○ | ○ |
| e. I feel this parent and I are partners. | ○ | ○ | ○ | ○ | ○ |
| f. I have confidence in the ability of this parent to help his/her child learn. | ○ | ○ | ○ | ○ | ○ |
| g. This parent wants his/her child to be successful academically. | ○ | ○ | ○ | ○ | ○ |
| h. This parent is supportive of his/her child's education. | ○ | ○ | ○ | ○ | ○ |

| 2. Please check the response that best describes how often these contacts have occurred **in the last 3 months**. | Never | 1-2 times | 3-4 times | 5-10 times | 11 or more times |
|---|---|---|---|---|---|
| a. I contacted this parent about a problem his/her child was having in school. | ○ | ○ | ○ | ○ | ○ |
| b. I asked this parent to help his/her child with school work. | ○ | ○ | ○ | ○ | ○ |
| c. I sent home written information about what is happening at school. | ○ | ○ | ○ | ○ | ○ |
| d. I expected the parent to look at the child's school work after it was corrected. | ○ | ○ | ○ | ○ | ○ |
| e. Not counting report cards, I gave this parent a positive report about this child. | ○ | ○ | ○ | ○ | ○ |

| | Never | 1-2 times | 3-4 times | 5-10 times | 11 or more times |
|---|---|---|---|---|---|
| f. Not counting report cards, I gave this parent a negative report about this child. | ○ | ○ | ○ | ○ | ○ |
| g. I asked this parent to provide information about this child. | ○ | ○ | ○ | ○ | ○ |
| h. I invited this parent to visit the classroom. | ○ | ○ | ○ | ○ | ○ |
| i. The parent was invited to attend a school program. | ○ | ○ | ○ | ○ | ○ |
| j. I assigned homework. | ○ | ○ | ○ | ○ | ○ |
| k. This parent contacted me. | ○ | ○ | ○ | ○ | ○ |

3. Please check the response that best describes your beliefs about this parent's involvement in the child's schooling **in the last 3 months**.

| | Strongly Disagree | Somewhat Disagree | Neither Agree nor Disagree | Somewhat Agree | Strongly Agree |
|---|---|---|---|---|---|
| a. This parent helped the child with school work at home. | ○ | ○ | ○ | ○ | ○ |
| b. This parent has been aware of how the child is doing in school. | ○ | ○ | ○ | ○ | ○ |
| c. This parent attended a school program for parents. | ○ | ○ | ○ | ○ | ○ |
| d. This parent has not been involved in this child's education. | ○ | ○ | ○ | ○ | ○ |
| e. This child has reading experiences at home. | ○ | ○ | ○ | ○ | ○ |
| f. This child has completed homework. | ○ | ○ | ○ | ○ | ○ |
| g. This child has shared home experiences that negatively impact his/her schooling. | ○ | ○ | ○ | ○ | ○ |
| h. This child has told about an educational outing or experience connected to his/her family. | ○ | ○ | ○ | ○ | ○ |
| i. The educational environment of this child's home is high risk. | ○ | ○ | ○ | ○ | ○ |

4. For each item, please mark the box for Not True, Somewhat True, or Certainly True. It would help us if you answered all items as best you can, even if you are not absolutely certain. Please give your answers on the basis of your student's behavior **in the last 3 months**.

| | Not True | Somewhat True | Certainly True |
|---|---|---|---|
| a. Considerate of other people's feelings | ○ | ○ | ○ |
| b. Restless, overactive, cannot stay still for long | ○ | ○ | ○ |
| c. Often complains of headaches, stomachaches, or sickness | ○ | ○ | ○ |
| d. Shares readily with other children, e.g., toys or treats | ○ | ○ | ○ |
| e. Often loses temper | ○ | ○ | ○ |
| f. Rather solitary, prefers to play alone | ○ | ○ | ○ |
| g. Generally well behaved, usually does what adults request | ○ | ○ | ○ |
| h. Many worries or often seems worried | ○ | ○ | ○ |
| i. Helpful if someone is hurt, upset, or feeling ill | ○ | ○ | ○ |
| j. Constantly fidgeting or squirming | ○ | ○ | ○ |
| k. Has at least one good friend | ○ | ○ | ○ |
| l. Often fights with other children or bullies them | ○ | ○ | ○ |
| m. Often unhappy, depressed or tearful | ○ | ○ | ○ |
| n. Generally liked by other children | ○ | ○ | ○ |
| o. Easily distracted, concentration wanders | ○ | ○ | ○ |
| p. Nervous in new situations, easily loses confidence | ○ | ○ | ○ |
| q. Kind to younger children | ○ | ○ | ○ |
| r. Often lies or cheats | ○ | ○ | ○ |
| s. Picked on or bullied by other children | ○ | ○ | ○ |
| t. Often offers to help others (parents, teacher, or children) | ○ | ○ | ○ |
| u. Thinks things out before acting | ○ | ○ | ○ |
| v. Steals from home, school, or elsewhere | ○ | ○ | ○ |
| w. Gets along better with adults than with other children | ○ | ○ | ○ |
| x. Has many fears or is easily scared | ○ | ○ | ○ |
| y. Good attention span, completes chores or homework | ○ | ○ | ○ |

**Please check to be sure all items have been marked. Thank you.**

# Appendix B: Coefficients Tables

Coefficients Table

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | 95.0% Confidence Interval for B | | Correlations | | | Collinearity Statistics | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | | Lower Bound | Upper Bound | Zero-order | Partial | Part | Tolerance | VIF |
| 1 Hyperactivity/ Inattention | (Constant) | 13.121 | 1.663 | | 7.89 | 0 | 9.832 | 16.41 | | | | | |
| | Native | -0.979 | 1.502 | -0.043 | -0.652 | 0.516 | -3.95 | 1.992 | -0.039 | -0.056 | -0.042 | 0.941 | 1.062 |
| | Male =1 | 0.332 | 0.515 | 0.045 | 0.645 | 0.52 | -0.687 | 1.352 | 0.058 | 0.055 | 0.042 | 0.872 | 1.146 |
| | Hispanic | -0.625 | 0.522 | -0.097 | -1.197 | 0.233 | -1.656 | 0.407 | 0.03 | -0.103 | -0.078 | 0.64 | 1.563 |
| | FAST_mean | -0.351 | 0.367 | -0.065 | -0.957 | 0.34 | -1.077 | 0.375 | -0.055 | -0.082 | -0.062 | 0.897 | 1.115 |
| | Asian | 0.211 | 0.963 | 0.015 | 0.219 | 0.827 | -1.693 | 2.116 | -0.002 | 0.019 | 0.014 | 0.935 | 1.069 |
| | Black | 1.451 | 0.733 | 0.134 | 1.979 | 0.05 | 0.001 | 2.902 | 0.096 | 0.168 | 0.128 | 0.921 | 1.086 |
| | Other Race | 0.796 | 0.668 | 0.098 | 1.192 | 0.236 | -0.525 | 2.118 | 0.079 | 0.102 | 0.077 | 0.622 | 1.609 |
| | Parent Involvement | -1.126 | 0.335 | -0.339 | -3.359 | 0.001 | -1.789 | -0.463 | -0.486 | -0.278 | -0.218 | 0.411 | 2.431 |
| | Parent Communication | 0.963 | 0.357 | 0.255 | 2.698 | 0.008 | 0.257 | 1.668 | 0.353 | 0.226 | 0.175 | 0.471 | 2.123 |
| | Homework and Reading | -0.971 | 0.343 | -0.309 | -2.83 | 0.005 | -1.649 | -0.292 | -0.57 | -0.237 | -0.183 | 0.351 | 2.851 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Parent Relationship | 0.329 | 0.359 | 0.098 | 0.916 | 0.362 | -0.382 | 1.039 | -0.424 | 0.079 | 0.059 | 0.367 | 2.721 |
| | Parent Attendance | 0.129 | 0.296 | 0.038 | 0.437 | 0.663 | -0.456 | 0.714 | 0.215 | 0.038 | 0.028 | 0.559 | 1.789 |
| | Support | -0.054 | 0.313 | -0.016 | -0.174 | 0.862 | -0.673 | 0.564 | -0.072 | -0.015 | -0.011 | 0.524 | 1.91 |
| | Environment | 0.181 | 0.44 | 0.039 | 0.412 | 0.681 | -0.689 | 1.052 | -0.077 | 0.035 | 0.027 | 0.475 | 2.105 |
| | Satisfaction | -0.218 | 0.4 | -0.045 | -0.545 | 0.587 | -1.008 | 0.572 | -0.078 | -0.047 | -0.035 | 0.603 | 1.658 |
| | Interaction | -0.22 | 0.343 | -0.051 | -0.641 | 0.523 | -0.897 | 0.458 | -0.174 | -0.055 | -0.041 | 0.659 | 1.517 |
| 2 Prosocial | (Constant) | 3.139 | 1.602 | | 1.959 | 0.052 | -0.03 | 6.308 | | | | | |
| | Native | 1.275 | 1.448 | 0.061 | 0.881 | 0.38 | -1.587 | 4.138 | 0.035 | 0.076 | 0.06 | 0.941 | 1.062 |
| | Male =1 | -0.084 | 0.496 | -0.012 | -0.169 | 0.866 | -1.066 | 0.898 | -0.056 | -0.015 | -0.011 | 0.872 | 1.146 |
| | Hispanic | 0.541 | 0.503 | 0.091 | 1.076 | 0.284 | -0.453 | 1.535 | 0.003 | 0.092 | 0.073 | 0.64 | 1.563 |
| | FAST_mean | -0.013 | 0.354 | -0.003 | -0.038 | 0.97 | -0.713 | 0.686 | 0.012 | -0.003 | -0.003 | 0.897 | 1.115 |
| | Asian | 0.327 | 0.928 | 0.025 | 0.352 | 0.725 | -1.508 | 2.162 | 0.019 | 0.03 | 0.024 | 0.935 | 1.069 |
| | Black | -0.399 | 0.707 | -0.04 | -0.565 | 0.573 | -1.796 | 0.999 | -0.07 | -0.049 | -0.038 | 0.921 | 1.086 |
| | Other Race | -0.446 | 0.644 | -0.059 | -0.693 | 0.49 | -1.72 | 0.828 | -0.065 | -0.06 | -0.047 | 0.622 | 1.609 |
| | Parent Involvement | 0.775 | 0.323 | 0.253 | 2.4 | 0.018 | 0.136 | 1.414 | 0.497 | 0.202 | 0.162 | 0.411 | 2.431 |
| | Parent Communication | -0.559 | 0.344 | -0.16 | -1.626 | 0.106 | -1.239 | 0.121 | -0.188 | -0.139 | -0.11 | 0.471 | 2.123 |
| | Homework and Reading | 0.437 | 0.33 | 0.151 | 1.323 | 0.188 | -0.216 | 1.091 | 0.509 | 0.113 | 0.09 | 0.351 | 2.851 |
| | Parent Relationship | 0.579 | 0.346 | 0.187 | 1.674 | 0.096 | -0.105 | 1.264 | 0.514 | 0.143 | 0.113 | 0.367 | 2.721 |
| | Parent Attendance | 0.19 | 0.285 | 0.06 | 0.665 | 0.507 | -0.374 | 0.753 | -0.054 | 0.057 | 0.045 | 0.559 | 1.789 |
| | Support | 0.067 | 0.302 | 0.021 | 0.223 | 0.824 | -0.529 | 0.663 | 0.195 | 0.019 | 0.015 | 0.524 | 1.91 |
| | Environment | 0.339 | 0.424 | 0.079 | 0.8 | 0.425 | -0.5 | 1.178 | 0.219 | 0.069 | 0.054 | 0.475 | 2.105 |
| | Satisfaction | 0.33 | 0.385 | 0.075 | 0.857 | 0.393 | -0.432 | 1.091 | 0.215 | 0.074 | 0.058 | 0.603 | 1.658 |
| | Interaction | 0.151 | 0.33 | 0.038 | 0.457 | 0.648 | -0.502 | 0.804 | 0.211 | 0.039 | 0.031 | 0.659 | 1.517 |
| 3 Peer | (Constant) | 7.724 | 0.932 | | 8.285 | 0 | 5.88 | 9.568 | | | | | |
| | Native | -0.321 | 0.842 | -0.025 | -0.381 | 0.704 | -1.987 | 1.345 | -0.038 | -0.033 | -0.025 | 0.941 | 1.062 |
| | Male =1 | 0.284 | 0.289 | 0.068 | 0.982 | 0.328 | -0.288 | 0.855 | 0.134 | 0.084 | 0.064 | 0.872 | 1.146 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Hispanic | 0.012 | 0.292 | 0.003 | 0.039 | 0.969 | -0.567 | 0.59 | 0.201 | 0.003 | 0.003 | 0.64 | 1.563 |
| | FAST_mean | -0.318 | 0.206 | -0.106 | -1.544 | 0.125 | -0.725 | 0.089 | -0.044 | -0.132 | -0.1 | 0.897 | 1.115 |
| | Asian | 0.406 | 0.54 | 0.05 | 0.753 | 0.453 | -0.661 | 1.474 | 0.018 | 0.065 | 0.049 | 0.935 | 1.069 |
| | Black | 0.419 | 0.411 | 0.069 | 1.02 | 0.31 | -0.394 | 1.232 | 0.028 | 0.087 | 0.066 | 0.921 | 1.086 |
| | Other Race | 0.807 | 0.375 | 0.177 | 2.153 | 0.033 | 0.066 | 1.548 | 0.228 | 0.182 | 0.139 | 0.622 | 1.609 |
| | Parent Involvement | -0.099 | 0.188 | -0.053 | -0.525 | 0.601 | -0.47 | 0.273 | -0.28 | -0.045 | -0.034 | 0.411 | 2.431 |
| | Parent Communication | 0.918 | 0.2 | 0.433 | 4.591 | 0 | 0.523 | 1.314 | 0.491 | 0.368 | 0.297 | 0.471 | 2.123 |
| | Homework and Reading | -0.049 | 0.192 | -0.028 | -0.257 | 0.797 | -0.43 | 0.331 | -0.435 | -0.022 | -0.017 | 0.351 | 2.851 |
| | Parent Relationship | -0.463 | 0.201 | -0.246 | -2.3 | 0.023 | -0.862 | -0.065 | -0.409 | -0.194 | -0.149 | 0.367 | 2.721 |
| | Parent Attendance | 0.1 | 0.166 | 0.052 | 0.601 | 0.549 | -0.228 | 0.428 | 0.26 | 0.052 | 0.039 | 0.559 | 1.789 |
| | Support | -0.001 | 0.175 | -0.001 | -0.006 | 0.995 | -0.348 | 0.346 | -0.091 | -0.001 | 0 | 0.524 | 1.91 |
| | Environment | 0.076 | 0.247 | 0.029 | 0.308 | 0.759 | -0.412 | 0.564 | -0.084 | 0.026 | 0.02 | 0.475 | 2.105 |
| | Satisfaction | -0.317 | 0.224 | -0.118 | -1.417 | 0.159 | -0.76 | 0.126 | -0.116 | -0.121 | -0.092 | 0.603 | 1.658 |
| | Interaction | -0.12 | 0.192 | -0.05 | -0.623 | 0.534 | -0.5 | 0.26 | -0.224 | -0.054 | -0.04 | 0.659 | 1.517 |
| 4 Conduct | (Constant) | 10.022 | 1.262 | | 7.939 | 0 | 7.526 | 12.519 | | | | | |
| | Native | -0.256 | 0.238 | -0.093 | -1.078 | 0.283 | -0.726 | 0.214 | -0.187 | -0.092 | -0.068 | 0.524 | 1.91 |
| | Male =1 | 0.252 | 0.334 | 0.069 | 0.754 | 0.452 | -0.409 | 0.913 | -0.128 | 0.065 | 0.047 | 0.475 | 2.105 |
| | Hispanic | -0.341 | 0.303 | -0.091 | -1.123 | 0.263 | -0.941 | 0.259 | -0.145 | -0.096 | -0.07 | 0.603 | 1.658 |
| | FAST_mean | -0.285 | 0.26 | -0.085 | -1.098 | 0.274 | -0.8 | 0.229 | -0.288 | -0.094 | -0.069 | 0.659 | 1.517 |
| | Asian | 0.684 | 0.731 | 0.061 | 0.936 | 0.351 | -0.761 | 2.13 | 0.034 | 0.08 | 0.059 | 0.935 | 1.069 |
| | Black | 0.823 | 0.557 | 0.097 | 1.479 | 0.141 | -0.277 | 1.924 | 0.088 | 0.126 | 0.093 | 0.921 | 1.086 |
| | Other Race | 1.316 | 0.507 | 0.206 | 2.593 | 0.011 | 0.312 | 2.319 | 0.228 | 0.218 | 0.163 | 0.622 | 1.609 |
| | Parent Involvement | 0.012 | 0.279 | 0.003 | 0.042 | 0.967 | -0.539 | 0.563 | 0.05 | 0.004 | 0.003 | 0.897 | 1.115 |
| | Parent Communication | -0.529 | 0.273 | -0.201 | -1.939 | 0.055 | -1.068 | 0.011 | -0.44 | -0.165 | -0.122 | 0.367 | 2.721 |
| | Homework and Reading | -0.028 | 0.225 | -0.011 | -0.126 | 0.9 | -0.472 | 0.416 | 0.181 | -0.011 | -0.008 | 0.559 | 1.789 |
| | Parent Relationship | -0.628 | 0.26 | -0.255 | -2.411 | 0.017 | -1.143 | -0.113 | -0.525 | -0.203 | -0.151 | 0.351 | 2.851 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Parent Attendance | 0.129 | 0.254 | 0.05 | 0.509 | 0.612 | -0.374 | 0.632 | -0.273 | 0.044 | 0.032 | 0.411 | 2.431 |
| | Support | 1.067 | 0.271 | 0.36 | 3.942 | 0 | 0.532 | 1.603 | 0.447 | 0.321 | 0.247 | 0.471 | 2.123 |
| | Environment | 0.225 | 0.391 | 0.039 | 0.574 | 0.567 | -0.549 | 0.998 | 0.115 | 0.049 | 0.036 | 0.872 | 1.146 |
| | Satisfaction | -0.586 | 0.396 | -0.116 | -1.481 | 0.141 | -1.37 | 0.197 | 0.103 | -0.126 | -0.093 | 0.64 | 1.563 |
| | Interaction | -1.249 | 1.14 | -0.071 | -1.095 | 0.275 | -3.504 | 1.006 | -0.063 | -0.094 | -0.069 | 0.941 | 1.062 |
| 5 Emotional | (Constant) | 7.205 | 1.241 | | 5.808 | 0 | 4.751 | 9.658 | | | | | |
| | Native | 0.257 | 0.233 | 0.104 | 1.101 | 0.273 | -0.205 | 0.719 | 0.09 | 0.094 | 0.075 | 0.524 | 1.91 |
| | Male =1 | 0.312 | 0.328 | 0.094 | 0.95 | 0.344 | -0.337 | 0.962 | 0.069 | 0.082 | 0.065 | 0.475 | 2.105 |
| | Hispanic | -0.076 | 0.298 | -0.022 | -0.254 | 0.8 | -0.665 | 0.514 | 0.035 | -0.022 | -0.017 | 0.603 | 1.658 |
| | FAST_mean | -0.307 | 0.256 | -0.101 | -1.201 | 0.232 | -0.812 | 0.199 | -0.151 | -0.103 | -0.082 | 0.659 | 1.517 |
| | Asian | -0.249 | 0.718 | -0.024 | -0.347 | 0.729 | -1.67 | 1.171 | -0.024 | -0.03 | -0.024 | 0.935 | 1.069 |
| | Black | -0.245 | 0.547 | -0.032 | -0.447 | 0.655 | -1.327 | 0.837 | -0.08 | -0.038 | -0.03 | 0.921 | 1.086 |
| | Other Race | 0.27 | 0.499 | 0.047 | 0.542 | 0.589 | -0.716 | 1.256 | 0.064 | 0.047 | 0.037 | 0.622 | 1.609 |
| | Parent Involvement | -0.198 | 0.274 | -0.052 | -0.725 | 0.47 | -0.74 | 0.343 | -0.056 | -0.062 | -0.049 | 0.897 | 1.115 |
| | Parent Communication | -0.302 | 0.268 | -0.127 | -1.127 | 0.262 | -0.832 | 0.228 | -0.312 | -0.097 | -0.077 | 0.367 | 2.721 |
| | Homework and Reading | -0.213 | 0.221 | -0.088 | -0.964 | 0.337 | -0.649 | 0.224 | 0.252 | -0.083 | -0.066 | 0.559 | 1.789 |
| | Parent Relationship | -0.304 | 0.256 | -0.137 | -1.19 | 0.236 | -0.81 | 0.202 | -0.433 | -0.102 | -0.081 | 0.351 | 2.851 |
| | Parent Attendance | -0.19 | 0.25 | -0.081 | -0.761 | 0.448 | -0.685 | 0.304 | -0.253 | -0.065 | -0.052 | 0.411 | 2.431 |
| | Support | 1.305 | 0.266 | 0.487 | 4.903 | 0 | 0.779 | 1.831 | 0.488 | 0.389 | 0.334 | 0.471 | 2.123 |
| | Environment | -0.325 | 0.384 | -0.062 | -0.846 | 0.399 | -1.085 | 0.435 | -0.022 | -0.073 | -0.058 | 0.872 | 1.146 |
| | Satisfaction | -0.479 | 0.389 | -0.105 | -1.231 | 0.22 | -1.249 | 0.291 | 0.034 | -0.105 | -0.084 | 0.64 | 1.563 |
| | Interaction | -0.798 | 1.121 | -0.05 | -0.712 | 0.477 | -3.015 | 1.418 | -0.043 | -0.061 | -0.049 | 0.941 | 1.062 |