

ABSTRACT

The Effects of Chronic Absenteeism in Kindergarten on Third-Grade STAAR Scores

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This study was an investigation of whether or not kindergarten attendance was associative with and predictive of student performance on the third-grade state of Texas Assessment of Academic Readiness for both mathematics and reading. Over the past 10 years, the topic of chronic absenteeism has become a key element in school assessment formulas under the Every Student Succeeds Act, and a growing body of research has pointed to the detrimental impact of chronic absenteeism on academic performance. This has been especially damaging to those students in elementary school because it has been linked to higher retention rates, poor reading and numeracy skills, and lagging social emotional skills. This study was of a quantitative, nonexperimental design that utilized mathematical relationships of an associative and predictive nature to address the study's five guiding research questions. The study's sampling technique was nonprobability convenient, and purposive in nature and allowed for analysis of archived kindergarten attendance and third-grade performance data from a cohort of fourth graders within a school district located within a midsized metropolitan area of the southwestern region of the United States.

The findings from the study supported the predictive nature of kindergarten attendance on performance for males specifically on the mathematics test. The study also revealed nearly identical attendance rates for both economically disadvantaged and not economically disadvantaged students but did show a gap in performance between the two groups. Due to the nature of the study design, one of the major limitations of this study was in the lack of generalizability of results to outside populations. The sample size also had unusually high attendance rates with over 85% of the sample missing 5 days or fewer. Even with the data skewed, the study revealed the predictive nature of kindergarten attendance on third-grade male mathematics performance and showed the need for future research into why the achievement gap between the two groups of students persisted when the literature suggested better attendance would reduce it.

The Effects of Chronic Absenteeism in Kindergarten on
Third-Grade STAAR Scores
by

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TABLE OF CONTENTS

LIST OF TABLES	ix
ACKNOWLEDGMENTS	xi
DEDICATION	xv
CHAPTER ONE	1
Introduction.....	1
Background.....	3
National Context.....	6
State Context.....	8
Local Context.....	10
Problem of Practice.....	13
Purpose of the Study.....	13
Guiding Questions of the Problem of Practice	14
Definitions of Key Term.....	15
Limitations	16
Delimitations.....	17
Summary.....	18
CHAPTER TWO	19
Review of the Literature	19
Chronic Absenteeism	20
Scope of the Problem.....	24

Compulsory Education Laws	24
Why Are Kids Absent?	28
Health-Related Factors.....	28
Child-Related Factors	31
Family-Related Factors	36
School-Related Factors	42
Community-Related Factors	49
Academic Impact of Chronic Absenteeism	52
Early Education.....	53
Secondary Education	55
Interventions to Alleviate Chronic Absenteeism.	58
School-Based Interventions	58
Family-Based Interventions	62
Community-Based Interventions	63
Chapter Two Summary	66
CHAPTER THREE	69
Methodology.....	69
Research Paradigm.....	70
Research Design.....	70
Research Questions.....	71
Sampling Method.....	72
Instrumentation	72
Data Collection Procedures.....	74

Data Analysis	74
Summary	76
CHAPTER FOUR.....	78
Results.....	78
Missing Data	78
Internal Reliability	79
Demographic Information.....	79
Attendance Findings	79
Attendance Findings by Gender.....	80
Attendance Findings by Socioeconomic Status	81
Academic Achievement Findings	81
Academic Achievement by Study Participant Gender.....	82
Academic Achievement Comparison by Socioeconomic Status	83
Research Question 1	84
Research Question 2	86
Research Question 3	88
Research Question 4	88
Research Question 5	89
CHAPTER FIVE	91
Conclusion	91
Overview of the Problem of Practice	91
Study Purpose	93
Review of Findings.....	94

Review of Research Questions	94
Research Question 1	95
Research Question 2	96
Research Question 3	97
Research Question 4	97
Research Question 5	98
Limitations	99
Implications for Professional Practice	100
Recommendations for Future Research	103
Conclusion	104
APPENDIX.....	107
Institutional Review Board Approval	107
REFERENCES	108

LIST OF TABLES

Table 1.1.	Central Independent School District Chronic Absenteeism	1
Table 4.1.	Study Participant Attendance Finding: Attendance and Attendance Rate	80
Table 4.2.	Attendance Comparison by Gender of Study Participant	80
Table 4.3.	Attendance Comparison by Socioeconomic Status of Study Participant.....	81
Table 4.4.	Study Participant Overall Academic Achievement Finding: Mathematics and Reading Scale Scores	82
Table 4.5.	Academic Achievement Comparison by Gender of Study Participant: Mathematics Scale Scores	82
Table 4.6.	Academic Achievement Comparison by Gender of Study Participant: Reading Scale Scores	83
Table 4.7.	Academic Achievement Comparison by Socioeconomic Status of Study Participant: Mathematics Scale Scores.....	83
Table 4.8.	Academic Achievement Comparison by Socioeconomic Status of Study Participant: Reading Scale Scores	84
Table 4.9.	Predicting Third-Grade Mathematics Achievement by Study Participant Kindergarten Attendance.....	85
Table 4.10.	Comparison of Associative/Predictive Effect of Kindergarten Attendance and Third-Grade Mathematics Achievement by Gender of Study Participant	86
Table 4.11.	Predicting Third-Grade Reading Achievement by Study Participant Kindergarten Attendance	87
Table 4.12.	Comparison of Associative/Predictive Effect of Kindergarten Attendance and Third-Grade Reading Achievement by Gender of Study Participant	87

Table 4.13. Predicting Third-Grade Mathematics Achievement by Study Participant Kindergarten Attendance and Socioeconomic Status.....	89
Table 4.14. Predicting Third-Grade Reading Achievement by Study Participant Kindergarten Attendance and Socioeconomic Status.....	90

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DEDICATION

To Joy and Quinn
If it were not for your constant love, sacrifice, and support,
this dissertation would not exist

CHAPTER ONE

Introduction

Attendance is a critical component of a student’s academic success within the school setting (Applied Survey Research, 2011; Chang & Romero, 2008; Chang, Osher, Schanfield, Sundius, & Bauer, 2019; Ginsburg, Jordan & Chang, 2014; Hanover Research, 2016; Lara, Noble, Pelika, & Coons, 2018; London, Sanchez, Castrechini, 2016; Musser, 2011). In this study, the academic impact of absenteeism was examined at an independent school district (ISD) in Texas. To protect the identity of the school district, it will be referred to by the pseudonym, Central ISD. From the fall of 2014 to the spring of 2019, attendance data for Central ISD showed a growing population of students who were in danger of being academically at risk due excessive amounts of absences as demonstrated in Table 1.1.

Table 1.1

Central Independent School District Chronic Absenteeism

School year	Total enrollment	% of students with chronic absenteeism	Total number of students
2014–2015	7,643	3.0	229
2015–2016	7,793	2.9	226
2016–2017	7,886	2.8	221
2017–2018	8,068	3.9	315
2018–2019	8,234	3.7	305

A growing body of research pointed to the need for early warning indicators alerting educators of those students in danger of falling behind academically and becoming off track for graduation (Applied Survey Research, 2011; Balfanz & Byrnes, 2012; Chang & Romero, 2008; Hanover Research, 2016; Jordan & Miller, 2017), so the purpose of this research was to examine the relationship between a high number of absences in kindergarten and third-grade standardized assessment results to determine if chronic absenteeism in kindergarten was an indicator of later academic struggle in Central ISD.

The education system in the United States is based on the belief and understanding that students must be present at school to be successful (Balfanz & Brynes, 2012; Chang & Romero, 2008; RI DataHUB, 2015). Over the past 10 years, chronic absenteeism has moved from a topic that interested only a small group of researchers and advocates to a national metric utilized by the federal government. As of 2019, 36 states now use student attendance as the fifth student success indicator and included it in the new school assessment formulas under the federal Every Student Succeeds Act (ESSA; Jordan, Fothergill, & Rosende, 2018; Jordan & Miller, 2017).

The reason for this dramatic shift in emphasis stemmed from the seriousness of the problem regarding attendance nationwide. During the 2015–2016 school year, the U.S. Department of Education’s (ED) Office of Civil Rights (OCR) reported that close to 8 million students were chronically absent and missing so much school as to put them in danger of being academically at risk (U.S. Department of Education Office for Civil Rights, 2016). Students who are chronically absent risk falling behind academically, not graduating on time, or dropping out (Applied Survey Research, 2011; Balfanz & Byrnes, 2012; Chang & Romero, 2008; Ginsburg et al., 2014; Musser, 2011).

Background

Over the past several decades, federal and state policy has focused on improving student achievement and reducing inequality (Gottfried & Hutt, 2019). Incredible amounts of energy, attention, and money have been devoted to teacher training and education, reducing the size of classrooms, and most recently, using standards-based accountability systems brought about by the passage of the No Child Left Behind Act of 2001 and the ESSA of 2015 (Gottfried & Hutt, 2019). All of these efforts required large investments in time and money. Improving attendance, which research has shown is inextricably linked to academic achievement (Applied Survey Research, 2011; Chang et al., 2019; Chang & Romero, 2008; Ginsburg et al., 2014; Hanover Research, 2016; Lara et al., 2018; London et al., 2016; Musser, 2011) offers a simpler path to closing the educational achievement gap. This theory of improvement does not require the purchasing of new materials or curriculum or the changing of instructional practices, but a shift in school culture that promotes attendance (Chang, 2017).

The reality of the education system today is that educators can receive the best training, work in collaborative and innovative learning environments, and possess the most progressive curriculum designed for closing student achievement gaps, but none of these systems and interventions work if students are not present to benefit from them. Students miss school for a variety of reasons including illness, family responsibilities, doctor and dental appointments, school suspension, and transportation issues (Wiseman & Dawson, 2015). What makes chronic absenteeism so detrimental is that it is directly linked to student achievement (Applied Survey Research, 2011; Bruner, Discher, & Chang, 2011; Gottfried, 2015) and can begin in prekindergarten. Starting as early as kindergarten, high levels of

absences begin to detrimentally impact students' future success (Bruner et al., 2011) because chronic absenteeism increases the chances students will fall behind grade level by third grade, fail classes in the middle school grades, and ultimately drop out of high school (Attendance Works, 2016).

Chronic absenteeism does not impact just a single student and his or her future successes; rather, it risks “the potential for negative spillover effects” for entire classrooms and campuses (Gottfried, 2015, p. 2). Because chronic absenteeism does not occur in a vacuum, students with higher levels of absences negatively impact the pace and time allotted to classroom instruction. When students return to class after missing a day of school, teachers must pause instruction and spend time catching a student up on the information missed while the student was away (Chang, Bauer, & Byrnes, 2018; Change & Romero, 2008; Gottfried, 2015).

Since 2010, as greater emphasis and more research has been conducted regarding chronic absenteeism, there has been a national push to improve school attendance. Previously, districts were not asked or required to report chronic absenteeism to the federal government, and as part of No Child Left Behind, districts placed emphasis on average daily attendance (ADA) as an accountability measure rather than chronic absenteeism (Balfanz & Byrnes, 2012).

ADA is the sum of student attendance for every day of instruction divided by the number of days of instruction (Texas Education Agency [TEA], 2019b). In Texas, public schools are funded through the Foundation School Program, which utilizes a number of formulas to determine funds for each district (Hegar, 2019). Foundation School Program

funding is provided through two tiers, and the primary use of ADA is to calculate Tier 1 funding for each school district in the state of Texas (Hegar, 2019; TEA, 2019b).

The problem with relying on ADA for attendance data is that it is not an accurate measure of chronic absenteeism. ADA often masks the problem because it provides large group information but negates student-level trends. For example, a campus of 200 students could have an ADA of 95%, and yet that same campus could have 30% of its student population be chronically absent (Bruner et al., 2011). The reason for the apparent discrepancy is that an ADA of 95% for a campus of 200 students signifies that on any given day, 10 students are absent. However, the 30% of students who are chronically absent are not all missing on the same day, but rather have their days spread out over the year, which makes the problem difficult to identify (Chang & Romero, 2008).

Chronic absenteeism, once relatively unknown, has become a national metric utilized by over 36 states, providing valuable information on who is missing school, how often they miss school, and how their absences impact their learning and academic success (Change et al., 2018; Jordan & Miller, 2017; Jordan et al., 2018). Previously, only six states kept track of chronic absenteeism data. Now, with the implementation of the ESSA signed into law by President Barack Obama in 2015:

States [are] to include five indicators measuring school performance, four focused on academic achievement, and a fifth “non-academic” measure of school quality or school success. In response, a majority of state leaders have adopted chronic student absenteeism as their “fifth indicator.” (Jordan & Miller, 2017)

With states adopting chronic absenteeism as their fifth indicator, more data regarding the impact of absenteeism on student success should become available.

National Context

One of the main issues that previously prevented educators and policy makers from addressing chronic absenteeism was the lack of available data supporting chronic absenteeism as a national crisis in need of attention. During the 2013–2014 school year, for the first time in the history of the United States, the OCR collected national data regarding chronic absenteeism and collected the same information again in 2015–2016 (ED OCR, 2016). The nonprofit organization Attendance Works defined chronic absenteeism as missing 10% of the school year or 18 days of school or more (Attendance Works & Campaign for Grade-Level Reading, 2014), but the OCR defined the term as missing 15 days or more (ED OCR, 2016). Regardless of where the line is drawn, these two reports were the first to identify the size and gravity of the problem as nearly 8 million students were in danger of becoming academically at risk each year due to missing almost a month of school. This information, alongside a variety of supporting studies, prompted lawmakers to include chronic absence in the ESSA, which required districts to report their numbers of chronically absent students (Chang et al. 2018; Jordan et al., 2017; Jordan et al., 2018).

Chronic absenteeism is a growing issue and is detrimental to a student’s future success because students must be present in school to learn. The compounding effects of chronic absenteeism on student learning erodes the probability of a student being on grade level and persisting through graduation. An analysis of attendance data indicated that students who are chronically absent in kindergarten will be highly likely to have similar attendance issues in first grade (RI DataHUB, 2015). Research also clearly pointed to how “early absenteeism negatively impacts academic achievement in reading, math, and general knowledge” (Romero & Lee, 2007, p. 3). It has been predicted that one out of 10 U.S.

students in kindergarten and first grade separately miss over 18 days of school (Attendance Works & Campaign for Grade-Level Reading, 2014).

Across the country, schools are facing a crisis in early literacy as research has indicated nearly two thirds of fourth graders across the country do not read proficiently (Attendance Works & Campaign for Grade-Level Reading, 2014). In a 2011 California study, early absences were found to predict third- and fourth-grade achievement and reading capabilities. The study found

Only 17 percent of students who were chronically absent in both kindergarten and first grade were reading proficiently in third grade, compared to 64 percent of those with good attendance and that for every year a student is chronically absent, his or her chance for reading success diminished. (Attendance Works & Campaign for Grade-Level Reading, 2014, p. 3)

Though there are a number of factors that impact a student's ability to read and be on grade level, missing large amounts of class time due to absence lays the groundwork for future academic struggles for students, especially those in the early grades.

As previously noted, chronic absence directly impacts a student's ability to read and impedes the acquisition of foundational skills, which touch every aspect of a student's education and impacts their ability to succeed in upper grade levels. By the time a student reaches middle school, chronic absenteeism has been shown to be one of the best indicators of a student not graduating on time and ultimately dropping out of high school. Chronic absenteeism was found to be a better indicator than test scores or a student's background in predicting their future success (Allensworth, Gwynne, Moore, & de la Torre, 2014). The potential negative financial impacts on communities as a result of chronic absenteeism cannot go unaddressed as this issue is not merely a school issue but a community one. If left unaddressed, those chronically absent students who eventually drop out of school begin

to impact local and state economies as well as the national economy because the result is a less educated workforce (Baker, Sigmon, & Nugent, 2001).

State Context

In the state of Texas, there is no process or system in place to monitor chronic absenteeism. Though the state does not use chronic absenteeism as an accountability metric, it does factor ADA into its school funding formula, which means large numbers of student attendance issues go unaddressed and many districts lose valuable dollars (Attendance Works, 2018).

A number of studies have been conducted within Texas' largest districts to examine the cost of chronic absenteeism. For example, the Barbara Bush Houston Literacy Foundation conducted a study into the cost of absenteeism to Houston ISD. The foundation defined chronic absenteeism as a student missing 10% of the school year, which is around 18 or more school days. The researchers discovered

21,400 or 9.3% of the nearly 231,000 children who were enrolled [in Houston ISD] at any time during the school year were chronically absent, missing 18 days of school and contributing to the overall district average daily attendance rate of 95.5%. (Finck, 2015, p. 5)

Houston ISD's attendance rate of 95.5%, with 21,400 students being identified as chronically absent, illustrated how ADA masks the issue of chronic absenteeism (Balfanz & Byrnes, 2012; Chang & Romero, 2008; Chang et al., 2018). Such a large number of students being absent for 18 or more days has a significant economic impact on districts in the state of Texas because funding is tied to attendance. It was discovered that in Houston ISD, the district lost \$22.2 million in funding for every percentage point drop in ADA (Finck, 2015). Chronic absenteeism leads to valuable dollars being lost, monies that could

be utilized to hire teachers or support students. Identifying and intervening with students who are chronically absent would not only support the individual student but benefit Houston ISD as a whole.

In Central Texas, a study was conducted by E3 Alliance to examine the effects of chronic absenteeism on Central Texas public school districts. The researchers utilized data from the 2009–2010 school year and determined that in “Central Texas students were absent 2.4 million days per year” (Wiseman & Dawson, 2015, p. 3), and similar to findings for Houston ISD, researchers suggested the economic impact of chronically absent students was going unnoticed. They determined “every absence costs a school nearly \$40 per day, [which can have a] financial impact of \$20,000 every week from student absences” (Wiseman & Dawson, 2015, p. 4). From the nearly 2.4 million days per year that central Texas students missed, it was discovered that “half of the students had six or more absences per year, those students contributed to 85% of all student absences” (Wiseman & Dawson, 2015, p. 3). If measures were taken to address these absences, districts across the state would benefit financially.

One of the issues facing the state of Texas regarding chronic absenteeism is the lack of ability to accurately track and measure the reasons why students are absent, which creates barriers for administrators identifying and intervening with students who are missing school. Currently, data have been collected solely at the state and district level. The state is concerned with two codes: present and absent. One provides revenues to districts and one does not (Hegar, 2019; TEA, 2019a; Wiseman & Dawson, 2015). Because there are so many categories of student attendance that fall under the two codes, it is

difficult to track the reasons students are absent, hindering efforts to effectively intervene on a larger scale.

At the district level, data tracking systems provide more information, but they still lack what is necessary to allow the district or community to take action. At the district level, quite a bit more information may be captured as to why a student might have been marked present or absent. For example, “Hays CISD used 27 absence codes, some of which were very specific e.g. EI = excused due to illness OR visit to family in deployed military” (Wiseman & Dawson, 2015, p. 5), but administrators need a more streamlined system that allows for quick and easy access to student attendance data in order to intervene and work with students and families to prevent more absences from occurring. Chronic absenteeism in the state of Texas is a complex problem with a variety of causal factors, and if proper supports and systems are put in place, many of the reasons for chronic absenteeism can be mitigated (Finck, 2015).

Local Context

For the purpose of this study, the population sample came from Central ISD, a school district located within a mid-sized metropolitan area of the southwestern region of the United States. The vision of Central ISD is “Innovation, Commitment, and Excellence” (Central ISD, 2019, par 5). Reflected in its mission statement was a commitment to provide a supportive learning environment for all students, and one of the district’s goals was to “meet the academic, social, spiritual, and physical needs of a diverse student population” (Central ISD, 2019, par 7). The student population in Central ISD had seen an uptick in the number of students experiencing high numbers of absences.

Since 2015, the percentage of students who were considered chronically absent had risen from 3.0% to 3.7%, which was a jump from 229 to 305 students. Across the district, there were 305 students whose high number of absences indicated they were at risk of falling severely behind and not graduating if supports were not put in place to help them improve their attendance. In a district of over 8,000 students, 305 students experiencing severe attendance issues may not appear to be a large-scale problem, but the district’s goal to “respond appropriately to the needs of all students and their families” (Central ISD, 2019) mandated that attention be focused on serving these students and meeting their needs.

The school district had a number of parent-focused strategies in place to improve attendance. One of the first measures put in place by the district was to ensure parents were aware of the importance of student attendance. The student handbook introduced parents and students to the policies and guidelines followed regarding student attendance. The district’s stance on the issue was clearly defined by the handbook:

Regular school attendance is essential for a student to make the most of his or her education—to benefit from teacher-led and school activities, to build each day’s learning on the previous day’s, and to grow as an individual. Absences from class may result in serious disruptions of a student’s mastery of the instructional materials; therefore, the student and parent should make every effort to avoid unnecessary absences. Two state laws—one dealing with the required presence of school-aged children in school, e.g., compulsory attendance, the other with how a student’s attendance affects the award of a student’s final grade or course credit—are of special interest to students and parents. (Central ISD, 2018, p. 23)

The handbook included further information about the two laws affecting students and what procedures the district had in place to ensure compliance and student success.

Beyond the handbook, the district had created pamphlets and a variety of resources that provided parents with information regarding attendance. Online, parents could access

the district's attendance page, which provided a number of resources. From answers to frequently asked questions, links to online resources through Attendanceworks.org—a nonprofit organization whose mission is to reduce chronic absenteeism across the country—and a directory listing the persons responsible for attendance at each campus, as well as how to contact the district's truancy facilitator, the district had worked hard to ensure parents had what they needed to ensure their child's success.

At the campus level, assistant principals were tasked with the challenge of monitoring student attendance, reaching out to parents, creating interventions, working with school social workers, and as a last resort, coordinating with the truancy facilitator to take parents to court. These measures, coupled with the information provided to parents, enabled the district to achieve an attendance rate of over 97%, which was two percentage points above the state average. However, this attendance rate masked those chronically absent students for whom the interventions were not working.

Within the district, all campuses were operating at near enrollment capacity as the district had grown in size by over 1,000 students in the last ten years. As the number of students across the district continues to increase, the percentage of students who experience absenteeism is expected to remain the same unless systems are created to provide early warning indicators that allow administrators and educators across the district to intervene. In addressing the issue of chronic absenteeism at the campus level, many administrators have expressed frustration at the lack of easily accessible data that allows for early interventions to be implemented. By the time the current attendance tracking systems recognize an attendance problem, many students are already in danger of truancy court and are being identified as chronically absent. As the district continues to change and grow, the

need for a more innovative way of tracking attendance data and providing early interventions is vital to ensuring the success of all students.

Problem of Practice

Across the country, educators have invested vast amounts of time, money, and resources to improve student achievement. Districts have purchased new curricula, improved instructional practices, and focused on a variety of new initiatives; however, none of these interventions will improve student achievement if students are not present in school (Gottfried & Hutt, 2019). The school district for which this study was conducted was committed to “responding appropriately to the needs of all students and their families” (Central ISD, 2019, par 7), yet, there was a large population of students whose needs were not being met. If the mission of the district was to “maximize individual potential” (Central ISD, 2019, par 7), then new systems and interventions should be created to ensure that all students succeed.

Purpose of the Study

This study was a quantitative, nonexperimental study through which the researcher sought to determine if chronic absenteeism in kindergarten was associated with, and predictive of, student performance on the third-grade State of Texas Assessment of Academic Readiness (STAAR) test. Utilizing data from the current cohort of fourth-grade students within the district, the researcher analyzed performance on the 2018–2019 STAAR test and compared it to their attendance records from the 2015–2016 school year to determine if a correlation between the two variables existed. The aim was to provide the local district with an early warning indicator of student achievement and provide the

necessary data to support intervention steps should a relationship between the two be found.

Guiding Questions of the Problem of Practice

Specifically, this study addressed the following research questions:

- RQ1. To what degree was absenteeism in kindergarten associated with and predictive of achievement on the third-grade math STAAR test, and was the associative and predictive effect of absenteeism in kindergarten greater for female or male students in the study?
- RQ2. To what degree was absenteeism in kindergarten associated with and predictive of achievement on the third-grade reading STAAR test, and was the associative and predictive effect of absenteeism in kindergarten greater for female or male students in the study?
- RQ3. Was the rate of absenteeism in kindergarten more associated with and predictive of achievement on third-grade math or reading STAAR tests?
- RQ4. To what degree was absenteeism in kindergarten associated with and predictive of achievement on the third-grade math STAAR test by participant socioeconomic status?
- RQ5. To what degree was absenteeism in kindergarten associated with and predictive of achievement on the third-grade math STAAR test by participant socioeconomic status?

Definitions of Key Term

Chronic absenteeism: Chronic absenteeism refers to the accumulation of all absences, both present and excused, during the course of a school year. The term specifically refers to those students who have missed over 18 days of school or the equivalent of 10% of the school year (Chang & Romero, 2008).

Excused absences: Excused absences are those absences that “are not counted when determining the number of absences that trigger a referral or complaint for failure to comply with the compulsory attendance requirement” (TEA, 2017, p. 2).

Unexcused absences: Unexcused absences are those absences that are “counted for when determining the number of absences that trigger a referral or complaint for failure to comply with the compulsory attendance requirement” (TEA, 2017, p. 2).

Truancy: The term truancy refers to the frequency or total number of unexcused absences a student collects over the course of the school year. Typically, this term is negative in nature as it relies on punitive measures such as utilizing the court system to improve attendance, but it fails to offer a larger picture of absenteeism as it does not take into account all absences (Balfanz & Byrnes, 2012; Jordan & Miller, 2017).

Average daily attendance: ADA is “the number of students in average daily attendance, or the sum of attendance for each day of the minimum number of days of instruction as described under TEC, §25.081(a) divided by the number of actual days of instruction” (TEA, 2019b).

The State of Texas Assessment of Academic Readiness: The STAAR test is the standardized summative academic assessment for students in Grades 3–12 within the state

of Texas. It was designed to assess student growth and identify gaps in student learning where interventions may be necessary (TEA, 2019d).

Limitations

There were a number of limitations that should be taken into account when interpreting the results of this study. One of the major limitations was in the study's nonexperimental design and nature. The problem that arose from this was that without direct manipulation of variables, assurances that other factors were not involved in the results of the observation could not be made (Spector, 1981).

A second limitation of this study was the fact that it was correlational in nature. This limitation was noted by Cook and Cook (2008):

Correlational research is not designed to establish evidence-based practices, because correlation does not imply causality. That is, just because two variables are related does not necessarily mean that one caused the other. Correlational research seeks to identify relationships that exist among variables and describe them in relation to their direction (positive or negative) and their strength without introducing an intervention to change an outcome variable. Because there is no active introduction of an intervention, findings from correlational research indicating that variables A and B are related cannot definitively determine whether A caused B, B caused A, or a third variable caused both A and B. (p. 101)

The information gleaned from this study could not directly link attendance to achievement. The aim was to determine if a relationship existed, but the information gleaned highlighted the need for further research to fully determine if what was found can be correlated.

A third limitation of the study related to the manner in which the school district organized the collected data. The issue of data retrieval and coding by a third party (i.e., the school district information technology department) may have limited subsequent analytics and the validity of the interpretation of findings. Although a specific, detailed

request for data retrieval was made in light of the study needs, the possibility of human or technical error in the process existed.

Fourth, the issue of generalizability represented a major limitation of the study and its findings. The specific sampling technique used in the study was nonprobability, convenient, and purposive by definition. Although useful for study purposes, nonprobability sampling techniques limit the generalizability of findings to the population from which it was accessed. In this case, the population was limited to the sample itself. Generalizations of study findings may not be appropriate nor accurately applied for cohorts in other school districts within or outside the region in which the study's sample was accessed.

Delimitations

The purpose of the study was to examine the associative and predictive relationship between the absenteeism rates of students in kindergarten and their subsequent performance on the STAAR test at the third-grade level. The study was focused on attendance data from a cohort of fourth graders in a Texas school district during the 2015–2016 school year (i.e., the independent variable) and the cohort's performance on the 2018–2019 third-grade reading and math STAAR tests (i.e., the dependent variable). As a result, the study was delimited to the performance of this particular cohort and was not informed by an examination of other grade levels enrolled in the same district at the same time. Moreover, other factors or variables that could have contributed to student test performance were not included as independent variables.

Summary

The purpose of this quantitative, nonexperimental study was to determine whether or not attendance in kindergarten was associated with and predictive of student performance on the third-grade STAAR test. The U.S. education system was founded on and operates under the assumption that every student regularly attends school (Balfanz & Byrnes, 2012), and new research has pointed to the determinantal and long-term impacts of attendance in the early grades (Applied Survey Research, 2011; Attendance Works & Campaign for Grade-Level Reading, 2014; Chang & Romero, 2008). Students who are chronically absent in kindergarten miss valuable instructional time during the foundational year of schooling, and the purpose of this study was to determine if those missed kindergarten days pointed to poor performance on the third-grade STAAR exam.

Chapter Two provides a thorough review of the literature regarding chronic absenteeism. Specifically, the chapter includes a more detailed definition of what constitutes chronic absenteeism and provides an examination of the factors contributing to why students miss school, the academic impact of missing large amounts of time in school, and what districts across the country have been doing to combat chronic absenteeism.

CHAPTER TWO

Review of the Literature

The purpose of this study was to determine the degree to which chronic absenteeism in kindergarten is associative with and predictive of student achievement on the STAAR test for third-grade mathematics and reading. Utilizing the data from this study, the principal investigator sought to determine if, in the event such relationships were shown to exist between kindergarten attendance and third-grade performance, an early warning system could be created to support those students and improve academic achievement. Students in the early grades are the most vulnerable to becoming academically at risk due to a high number of absences while also having the least control over those absences (Attendance Works & Campaign for Grade-Level Reading, 2014; Romero & Lee, 2007).

Across the country, millions of students miss over a month of school each year, which diminishes academic performance and can delay graduation or put students at risk for dropping out. Students who experience chronic absenteeism in early grades are more likely to read below grade level by third grade, struggle with numeracy, and be retained (Attendance Works & Campaign for Grade-Level Reading, 2014; Hanover Research, 2016; Jordan & Miller, 2017). The trend becomes more devastating as chronic absenteeism in middle grades is a greater indicator of dropping out than family background, income, community, race, and grade point average (Ginsburg et al., 2014; Hanover Research, 2016).

By addressing chronic absenteeism in the early years and working to ensure students are on grade level and have a strong foundation of knowledge, educators can better ensure student success as they progress through the education system. This review of literature consists of five sections. The first section provides an overview of the size of the problem and an exploration of the U.S. education system's history relating to attendance. The second section provides some context for why students are absent from school. The third section documents the academic impact of chronic absenteeism on student achievement in both the early and secondary grades. The fourth section highlights interventions that have been successful in curbing high levels of absenteeism across the country. The final section provides a summary of the literature review and a preview of the methodology used in this study.

Chronic Absenteeism

Over the past 25 years, educators have worked tirelessly to meet the demands of the standards and accountability era to prepare students in the United States for the global workforce. Districts spend thousands of dollars each year to provide teachers with professional development and tools to help meet the needs of these students, but none of these measures make a difference if students are not in school. The entire education system is founded on and operates under the assumption that every student attends school regularly, which is reinforced with compulsory education laws requiring students to attend school (Balfanz & Byrnes, 2012). For years, the assumption that students do not miss school for anything except the occasional doctor's visit or special occasion was so strong that states and districts did not measure student attendance (Balfanz & Byrnes, 2012), but

studies over the past 10 years have pointed to the detrimental effects chronic absenteeism has on academic achievement (Chang & Romero, 2008; ED OCR, 2016; Gottfried, 2015).

Attendance information is a powerful tool for improving schools. It can direct school officials to potential issues within the community (Black, Seder, & Kekahio, 2014), unearth a negative school culture and environment (Balfanz & Byrnes, 2012; Chang & Romero, 2008; Chang et al., 2019; Jordan et al., 2018), and highlight issues students may be encountering at home (McCray, 2006; Popp, Stronge, & Hindman, 2003; Williams, 2003). For this reason and the requirements set forth in the ESSA, over 36 states have chosen to utilize chronic absenteeism as the student success indicator (Chang et al., 2018).

The term chronic absenteeism refers to the extended amount of time a student misses due to absences that are unexcused, excused, or the result of disciplinary suspensions (Chang & Romero, 2008). There is no universal definition for the term chronic absenteeism because the criteria can fluctuate from state to state; however, this study uses the definition set forth by the nonprofit organization Attendance Works as a student missing 10% of the school year or the equivalent of 18 or more school days (Balfanz & Byrnes, 2012). Building off of Chang's (2017) report, *Portraits of Change*, levels of chronic absenteeism were assigned in this study, including: extreme (i.e., 30% or more of students), high (i.e., 20%–29% of students), significant (i.e., 10%–19% of students), modest (i.e., 5%–9% of students), and low (i.e., less than 5% of students; Chang et al., 2018).

The difference between the definitions of chronic absenteeism and truancy is that in chronic absenteeism, all absences are counted, and in truancy, only unexcused absences are counted. In the past, states and districts have been primarily concerned about truancy,

which refers to the total number of unexcused absences. Due to attendance laws, unexcused absences are associated with punitive consequences (Jordan & Miller, 2017). Defined by each state, truancy is the number of “absences granted to students before intervention takes place. The definition varies across states, for example from 10 unexcused absences granted within a 6-month period in Texas (Texas Education Code §25.094) to zero unexcused absences in Arizona (A.R.S. 15-803(c)(2))” (London et al., 2016, p. 4). The distinction between the two is critical because it underscores that the reason for a student’s absence matters less than the total number of days that are missed (Balfanz & Byrnes, 2012).

In the seminal report *Present, Engaged, and Accounted For*, researchers found evidence of the detrimental impact of high absenteeism on student achievement (Chang & Romero, 2008). Wanting to gain greater insight into the impact, risk factors, and potential interventions associated with chronic absenteeism, researchers analyzed a national data set, worked with local school districts to analyze attendance patterns, conducted a thorough literature review, and conducted numerous telephone interviews (Chang & Romero, 2008).

Working in conjunction with the National Center for Children in Poverty, the research team

examined data on chronic early absence from the Early Childhood Longitudinal Study, Kindergarten Cohort (ECLS-K). The ECLS-K, which is conducted by the National Center for Educational Statistics, U.S. Department of Education, includes data on children’s development, family characteristics and functioning, as well as their school environments, collected from a national sample of 21,260 children from the time they entered kindergarten in 1998 until they reached fifth grade. (Chang & Romero, 2008, p. 5)

Pulling attendance patterns from the Early Childhood Longitudinal Study (ECLS-K), researchers also partnered with The Urban Institute, the National Neighborhood Indicators Partnership, the National Center for School Engagement, and Metis Associates to collect data from nine different locations and analyze it (Chang & Romero, 2008). The

data from these school districts was sorted into three categories of low, moderate, and chronic absence patterns. This information, coupled with the data collected from the ECLS-K, as well as information gleaned from phone interviews with over 100 kindergarten through 12th grade educators, policy experts, and administrators, allowed researchers to better understand how prevalent chronic absenteeism is and its impact on educational outcomes.

The results of Chang and Romero's (2008) study showed that 11% of kindergartners across the country experienced chronic absenteeism and that these absences negatively impacted performance in first grade, especially for Latinx children (Chang & Romero, 2008). They also found that attending school regularly was most important for children from families living in poverty and that "poor children who were chronic absentees in kindergarten had the lowest performance in reading and math in fifth grade" (Chang & Romero, 2008, p. 8). Attending school regularly was most important for this population as missing school had the greatest impact and these students had the fewest resources available to fill in the gaps created by too many absences.

These revelations surprised many policy makers and district administrators who felt they had been keeping tabs on the issue by addressing truancy, taking attendance, and calculating ADA, which highlighted how many students were present on a given day. Few realized these measures masked the issue of chronic absenteeism (Chang & Jordan, 2017). Since the report, a growing body of research has pointed to the detrimental effects of chronic absenteeism on the long-term academic success of students and how absences that occur as early as prekindergarten can impact students for years to come (Alexander,

Entwisle, Horsey, 1997; Schoeneberger, 2012; Chang, Gomperts, & Boissiere, 2014; Ginsburg et al., 2014).

Scope of the Problem

Across the country, politicians, administrators, policy makers, and teachers have argued about what is necessary and most needed to improve the educational experience of students in schools across the country, but one central premise is undisputed by all: students must be present in school to learn. Unfortunately, an estimated 5 to 7.5 million students miss close to a month of school each year (Ginsburg et al., 2014). Over the past 10 years, the data regarding chronic absenteeism has expanded. During the 2013–2014 school year, the ED OCR began tracking chronic absence. Defining the term as 15 or more days of school missed, they discovered more than 6.8 million students were chronically absent (ED OCR, 2016). During the 2015–2016 school year, the ED OCR again collected data on chronic absences and found nearly 8 million students were chronically absent, but researchers suspected the true numbers were even higher. For many districts, it was the first time they had reported such numbers as there were a larger number of districts claiming no instances of chronic absenteeism (Jordan & Miller, 2017)

Compulsory Education Laws

The issue of chronic absenteeism is rooted in the historical debate regarding to the responsibilities of the government versus the parent or guardian in rearing a child (Katz, 1976). Children are future adult members of society, so both parents and the government have a vested interest in the education and rearing of each child, and this vested interest leads to the natural push-and-pull of conflicting beliefs and ideologies. Nowhere is this

more evident than in the history of the United States' compulsory education and attendance laws.

In the 1600s, the colonists tried to utilize the traditional methods of education in England where the task fell on either the family, the church, the community, or a given profession (i.e., apprenticeships; Cremin, 1970). Over time and with a growing population, Puritan leaders of the Massachusetts Bay Colony saw the need for an agent of socialization, so they established the first public school—the Boston Latin School—in the United States (Boston Latin School Association, n.d; Cremin, 1970). Massachusetts established the first compulsory attendance laws in 1852 (Clay, Lingwall, & Stephens, 2012), which required parents to send their students to school for 12 weeks per year. (Massachusetts Compulsory Attendance Law, 1852).

Following the Civil War, more attention was given to public education and compulsory attendance laws became more popular and widespread (Fischel, 2009). By 1900, most of the South had instituted attendance laws, and by the 1920s, all states had adopted some sort of legislation regarding compulsory attendance (Clay et al., 2012; Katz, 1976). These compulsory attendance laws provided the first mechanisms to enforce attendance and allowed fines for violators of up to \$20 (Clay et al., 2012; Katz, 1976). Today, similar punitive measures exist to encourage student attendance as both students and parents may be taken to court over too many unexcused absences.

Over the centuries, the laws have prioritized education, so one researcher sought to determine if compulsory attendance laws improved learning. In a 2014 study conducted by Emily Rauscher of the University of Kansas, Rauscher (2014) sought to determine whether compulsory education laws resulted in educational gains. She argued current discussions

regarding compulsory education laws argue that these laws had little to no impact on student attendance, but that there was little research utilizing existing census data to corroborate these arguments (Rauscher, 2014). Rauscher (2014) examined census data from 1850–1920, which provided information for a period before the first attendance laws were enacted, so her sample was limited to “school-age youth ages 6 to 13 who were related to the head of households in 1850 to 1920 censuses” (p. 506). To understand the effects of compulsory attendance laws on student educational attainment, Rauscher (2014) examined data from the 1940 census because it was the first census to include information about educational attainment. One of the major findings of her study was that compulsory education laws had a statistically significant effect on educational attainment. Rauscher (2014) argued that “early U.S. compulsory schooling laws contribute to expansion and equality of elementary school attendance and attainment. Results provide consistent evidence of ‘hidden gains’” (p. 515), which pointed to the need to raise the dropout age for students, which President Obama called for in 2012.

Though Rauscher (2014) found evidence to support how educational laws positively impacted student educational attainment, sometimes laws with the best of intentions can end up hindering and impeding student success. Passed in 2001, the No Child Left Behind Act reignited the standards and accountability movement in the country by emphasizing student performance on standardized tests in math and reading. Though No Child Left Behind was designed to help provide students from disadvantaged backgrounds by increasing standards in schools, many researchers have argued that such measures ended up adversely affecting school attendance (Nauer, White, & Yerneni, 2008). As schools have narrowed the focus of curriculum and cut the amount of time spent in

classes such as social studies, science, physical education, and recess, student attendance decreased because the things that motivated students to stay in school began to disappear (Nauer et al., 2008).

Recognizing the adverse effects of too much emphasis on standardized testing, Congress rewrote federal education law to pull back some of the focus on testing, and from their work came the ESSA, which was passed in 2015. Under the ESSA, states are required to include five indicators measuring school performance; four of the indicators must be focused on academics, but the fifth indicator can be nonacademic and focus on other issues connected to school quality, such as chronic absenteeism (Jordan & Miller, 2017). Under ESSA, states have started collecting data regarding chronic absenteeism, which will allow for greater understanding into the effect that absenteeism has on achievement (Lara et al., 2018).

In many ways, chronic absenteeism presents the perfect data set for districts regarding the fifth indicator required by ESSA. Absenteeism is a widespread problem across the country. The data is available and easily understood. It meets the requirements of the law, but more than that, it has been shown to be a direct indicator of how well the culture of a school is meeting the needs of its students, especially those who come from disadvantaged backgrounds (Jordan & Miller, 2017).

Currently, 36 states have opted to use chronic absenteeism as the fifth indicator of school quality required by ESSA; however, Texas is one of the 14 states who have opted for other data sets to fulfill this requirement. In the state of Texas, compulsory attendance is mandated by law. The law requires that “students who are at least 6 years old as of September 1 of the applicable school year” (TEA, 2017) attend school until their 19th

birthday. Though Texas did not opt to use chronic absenteeism as a success indicator, it required that students attend school 90% of the year. Section §25.092 of the mandatory attendance law established conditions for a student's final grade to be invalidated should they not meet this requirement. Students who miss more than 10% of the school year but are in attendance more than 75% of the time can regain credit for the year based on the plans laid out by the student's school district. The law requires districts to provide students with these opportunities in the form of Saturday school or other educational offerings (TEA, 2017). Though Texas is not utilizing chronic absenteeism as a success indicator under ESSA, it has committed to ensuring students are in school by legally mandating their attendance.

Why Are Kids Absent?

One of the difficult things about addressing chronic absenteeism is there are a variety of factors contributing to why students miss school—it is a multifaceted problem that at its core derives itself from brokenness. Similar to the broken window theory first proposed by Wilson and Kelling in 1982, which hypothesized that if a window in any type of structure is left broken, all other windows in the building and surrounding buildings will soon be broken (Wilson and Kelling, 1982), chronic absenteeism is linked to brokenness in a student's health, self-image and worth, family, school, and the community. In the following sections, one of the reoccurring themes linked to a student's increased risk of being chronically absent is brokenness, and educators first must identify the reasons and pull back the reasons why students miss school before they can implement appropriate interventions to prevent the number of absences from accruing over time (Balfanz & Byrnes, 2012; Lara et al., 2018).

Health-Related Factors

One of the most commonly cited reasons for student absences relates to health issues. One reality of education is that students get sick or suffer from a variety of chronic illnesses that keep them from attending school. The top cited health-related issues causing high number of absences are acute illnesses (Wiseman & Dawson, 2015), asthma (Centers for Disease Control and Prevention [CDC], 2020; Hsu, Qin, Beavers, & Mirabelli, 2015; Stridsman, Dahlberg, Zandrén, & Hedman, 2017), and oral health issues (Dye, Li, & Beltrán-Aguilar, 2012; Pourat & Nicholson, 2009).

Acute illnesses are one of the top health-related reasons for why students stay home. In 2013, the organization E3 Alliance, which works to drive education policy and change in Texas, focused their attention on improving student attendance. In a previous study, E3 Alliance found that students retained in ninth grade due to attendance issues were 10 times more likely to not graduate on time or drop out altogether (Wiseman & Dawson, 2015). Seeking to determine why students missed school in Central Texas, Wiseman and Dawson (2015) reviewed the attendance data from over 8,959 students from nine schools in two different school districts. By analyzing over 23,402 total absences that accrued by all students during the school year, the researchers discovered that acute illnesses were one of the leading factors for student absenteeism in Central Texas (Wiseman & Dawson, 2015). They discovered that 16,811 (72%) of the absences recorded were true absences where the students were not present on a campus and that acute illnesses such as the common cold, flu, or strep throat accounted for 48% of all absences. Following acute illness, chronic illnesses and dental problems followed as contributing factors.

In the United States, asthma remains the leading chronic illness among children and adults and is one of the leading causes of school absenteeism (CDC, 2020). Classrooms, on average, can expect to have three or more students per room who suffer from asthma with minority and low-income populations being the most affected (CDC, 2020). Each year, asthma accounts for approximately 14 million absences across the nation (Chang & Davis, 2015; Jordan & Miller, 2017), and students with asthma are, on average, more likely to have 10 or more absences per year than their peers (Wiseman & Dawson, 2015).

In one study, researchers sought to determine if the impact of asthma on daily life had either improved or declined in the decade between 2003 and 2013 (Stridsman et al., 2017). Utilizing cross-sectional data from two studies 10 years apart, researchers analyzed the results of over 5,000 participant answers to questionnaires, and from their investigation, learned that, in 2015, more students found asthma interfered with their daily lives as compared to 10 years earlier (Stridsman et al., 2017). The CDC found that school environments can increase asthma problems when facilities are not well kept, are dusty, or are cleaned with harsh chemicals (CDC, 2020). All of these factors can trigger asthma episodes that keep students home.

In another study, researchers utilized data from both the 2006–2010 Behavioral Risk Factor Surveillance System and the Child Asthma Call-Back Survey (Hsu et al., 2015). The Behavioral Risk Factor Surveillance System is “an ongoing, state-based, random-digit-dialed telephone survey of non-institutionalized U.S. adults” (Hsu et al., 2015, p. 2). The Child Asthma Call-Back Survey is a follow up survey that occurs two weeks after the initial Behavioral Risk Factor Surveillance System with the purpose of measuring the health of children with asthma (Hsu et al., 2015). With a sample size of

8,881 children who had asthma and attended school, which represented 4.3 million children, the researchers found that half of the population missed at least 1 day of school per year due to asthma (Hsu et al., 2015).

Oral health issues reign as one of the top reasons why students miss school. Nearly 20% of elementary aged students experience untreated tooth decay (Dye et al., 2012). Utilizing data from the California Health Interview Survey—created by the collaboration among the University of California Center for Health Policy Research, the California Department of Public Health, the Department of Health Care Services, and the Public Health Institute—researchers examined the collected information from over 10,000 children, 13,000 adolescents, and 51,000 teens to study the impact of oral health on attendance (Pourat & Nicholson, 2009). The data highlighted that

an estimated 504,000 (7%) missed at least one day of school due to a dental problem in the past year. The majority of these children (60%) report one missed day of school due to dental problem, while the remaining 40% report missing two or more days. (Pourat & Nicholson, 2009, p. 2)

It was found that dental care was the difference maker for these students' attendance rates. Those who could afford adequate dental care attended school more regularly, and those students who could not afford it were 3 times more likely to miss school with tooth pain and oral health issues; the majority of which are preventable with adequate care (Pourat & Nicholson, 2009).

Child-Related Factors

Chronic absenteeism may appear simple on the surface, but it becomes increasingly complex as the variables surrounding it are unpacked. From health-related issues to family pressures, there are a number of reasons why students miss school, but some of the more

challenging issues to tackle are those related to the children themselves. Issues such as a lack of self-esteem (Balfanz & Byrnes, 2012; Booth & Gerard, 2011; Corville-Smith, Ryan, Adams, & Dalicandro, 1998), bullying (Chang et al., 2019; Henry, 2007; Steiner & Rasberry, 2015), and peer influence (Black et al., 2014; Get Schooled Foundation, 2012; Kearney, 2008; Owusu-Kyeremaa, 2010) rank as some of the main reasons for which students choose to miss school.

Researchers have pointed to how “students not present for instruction are destined to underperform [and] experience anxiety stemming from their perceived lack of ability” (Schoeneberger, 2012, p. 8), a problem which only compounds as student miss more school. Though students in the beginning years of their education have little power over whether or not they show up to school because they depend on their caregivers, the accumulation of absences in these early years adversely affects their educational achievement and can create avoidant behaviors. Students who fall behind their peers academically have been shown to begin avoiding school due to a lack of self-esteem (Corville-Smith et al., 1998). Worries about being asked to read out loud in front of their peers or having to solve a problem they do not understand leads students to avoid school altogether rather than expose themselves as lagging behind their friends (Balfanz & Brynes, 2012).

In a quantitative study examining the varying personal, familial, and school-related factors that contribute to a high number of absences, researchers sought to determine the variables that most affect absenteeism in schools. Studying a sample of 54 students that included students with good attendance and those who had missed 15 days or more, researchers analyzed participant responses to three survey instruments used to assess

perceptions of academic ability, family relationships, and perceptions of schools and school personnel (Corville-Smith et al., 1998). Utilizing *t*-test statistical analysis, the researchers discovered that “absentee students in the current sample had lower academic self-concepts. The absentees possessed lower global self-esteem than regular attenders” (Corville-Smith et al., 1998, p. 633). Such low self-esteem, especially related to academics, could prompt students to disconnect and take action to avoid having their peers see them struggle academically.

In another study utilizing a mixed methodology and longitudinal data, researchers sought to determine if a link existed between self-esteem and academic achievement and if gender had any influence over the perceived relationships (Booth & Gerard, 2011). The study sample was drawn from four schools in Cleveland, Ohio, and three schools from Manchester, England, and consisted of a total of 413 students. Investigators relied on interview and survey data collected from the students, and data was analyzed utilizing IBM’s Statistical Package for the Social Sciences (Booth & Gerard, 2011). The study uncovered a link to self-esteem and academic performance, but noted that this link also depended on social context and domain (Booth & Gerard, 2011). Though this particular study did include an investigation into the relationship between self-esteem and academic performance, it pointed to a link between self-esteem and achievement. As students begin to struggle academically, research has suggested that self-esteem will fall and avoidant behaviors will become more prevalent (Balfanz & Byrnes, 2012; Corville-Smith et al., 1998).

One of the largest deterrents for attending school is the perceived lack of safety related to bullying and harassment felt by the student (Henry, 2007). Bullying is defined

as “a single significant act or a pattern of acts by one or more students directed at another student that exploits an imbalance of power and involves engaging in written or verbal expression, expression through electronic means, or physical conduct” (Texas Education Code § 37.0832). Bullying is a nation-wide problem that contributes to a child’s decision to attend school. Bullying negatively impacts school achievement, increases anxiety and depression, and inhibits social and emotional skill building (Black et al., 2014). Students who experience bullying are less likely to remain in school if interventions are not put in place and behavior mitigated; however, when students feel safe, they are more likely to engage in class participation, be involved in clubs and organization, and feel more connected to the school culture (Chang et al., 2019).

In a study examining the relationship between bullying and attendance, researchers sought to establish a direct link between the two variables. Utilizing data from the 2013 Youth Risk Behaviors Survey of students in ninth through 12th grade, researchers utilized logistic regression analysis to analyze the data from more than 13,583 students (Steiner & Rasberry, 2015). On the survey, students were asked two questions regarding bullying. The first question focused on whether students had experienced bullying on school property, and the second question focused on whether students had experienced bullying online (Steiner & Rasberry, 2015). The researchers argued “this study provides the first nationally representative estimates of increased risk of missing school due to safety concerns associated with in-person, electronic, and both types of bullying among U.S. high school students” (Steiner & Rasberry, 2015, p. 3). The study estimated that 15.5% of bullied students missed one or more days of school due to perceived safety concerns, which “equates to 600,000 students of the more than 16 million enrolled secondary school

students” (Steiner & Rasberry, 2015, p. 3). Students who experienced both bullying at school and online were even more likely to miss school due to perceived safety concerns.

Finally, one of the main child-related factors relating to absenteeism is the need to fit in and be part of a group. Students all over the world are influenced by their peers both positively and negatively (Kearney, 2008). For many students, this desire to be a part of a group can lead to issues surrounding drinking, substance abuse, fighting, and skipping school (Black et al., 2014; Kearney, 2008; Owusu-Kyeremaa, 2012). Identifying this need and working with students to see the benefit of being in school requires the school environment to have caring adults who create a positive school culture to combat the narrative put forward by negative peer influencers (Black et al., 2014).

To learn more about the many reasons why students skip school, researchers at Hart Research “conducted 516 interviews from June 14–29, 2012 in malls in 25 cities across the United States” (Get Schooled, 2012, p. 13). The sample of the research focused on students who reported being in eighth through 12th grade, and the interviews were conducted in both English and Spanish (Get Schooled, 2012). When students were asked why they skipped school, the consensus was that “ultimately, students prefer to hang out with their friends than go to school. Nearly 45% of all students said the key reason for skipping school is that is ‘more fun spending time with friends’” (Get Schooled, 2012, p. 10) than attending school all day. One thing the researchers uncovered from their interviews with students who skipped school to spend time with friends was that students were not taking the full day of school off. They found that only 28% of students skipped the entire day (Get Schooled, 2012); most students said they just skipped a period or two. Beyond hanging out

with friends, 36% of students reported staying home to sleep, and others reported either catching up on homework, watching television, or playing sports (Get Schooled, 2012).

Family-Related Factors

One of the most complex factors relating to chronic absenteeism is the student's family background and home life. Many times, especially with students in elementary school, students have no control over how and when they get to school. Though this changes with students in the secondary levels as they may be able to drive themselves to school or have access to other modes of transportation, chronic absenteeism can be a sign that students are struggling with serious problems in their homes. Research has pointed to low family income (Cardoso & Verner, 2007; Education Policy and Data Center, 2010; Morrissey, Hutchison, & Winsler, 2014; National Center for Education Statistics (NCES), 2006; Ready, 2010; Romero & Lee, 2007), high family mobility (Park & Kanyongo, 2012; Romero & Lee, 2007; Rumberger & Larson, 1988), adverse family factors (Black et al., 2014; Boyle, Georgiades, Racine, & Mustard, 2007; Kearney, 2008; Romero & Lee, 2008; Williams, 2003), and conflicting home and school priorities all as factors in student attendance (Balfanz & Brynes, 2012; Black et al., 2014; Chang & Romero, 2008; Kearney 2008).

Family income affects a variety of aspects of family life. From accessing transportation, affording quality healthcare, providing the availability of healthy food options, and ensuring stable housing, a family's income greatly influences what they are able or unable to access. Students from low-income backgrounds, as compared to their more affluent peers, are 25% more likely to miss a greater number of days per month (NCES, 2006). Student attendance and family income is born out of a complex series of

factors and relationships (Ready, 2010). For example, the less access students have to reliable transportation, the more likely they are to struggle with attendance. (Cardoso & Verner, 2007; Education Policy and Data Center, 2010; Romero & Lee, 2007).

Similarly, students who do not have access to appropriate health care are more likely to experience adverse health problems, and as a result, have a greater chance of missing a higher number of days (Bloom, Dey, & Freeman, 2006). Because students from low-income families have less access to quality healthcare, common illnesses such as the flu or a cold, are not treated appropriately and at times become much more serious, leading to more days missed (Bloom et al., 2006). As previously mentioned, income provides family access to a myriad of supports, and when students do not have access to quality services, they are at greater risk of missing school.

In one study focused on social class and income, researchers examined the effect of income and social class on literacy and mathematics learning as it was related to school attendance (Ready, 2010). Pulling data from the ECLS-K, researchers had access to a sample size of over 13,613 children from over 903 public and private schools spread across the country. Utilizing a linear modeling framework, researchers uncovered that students from low-income backgrounds benefit the most from attending school every day, and they experience greater gains in literacy than their more affluent peers during the early years of education (Ready, 2010). Students from low-income backgrounds “with good attendance gain almost 8% more literacy skills per month during kindergarten and almost 7% more per month during first grade” (Ready, 2010, p. 280). The same findings were found to be true of mathematics. These results were shown to be “intimately dependent on school attendance rates. Importantly, low [socioeconomic status] children—those who benefit

most from school attendance—are also most likely to suffer chronic absences” (Ready, 2010, p. 281), which highlighted how important it is for schools to ensure that students are present.

In another study examining the impact of family income on student achievement, researchers utilized “data from the MSRP, a longitudinal cohort-sequential study of 42,287 children in a large, urban public-school district in Florida” (Morrissey, Hutchison, & Winsler, 2014, p. 743) to determine to what extent income and attendance was related to school achievement. The researchers used students’ qualifications for free and reduced lunch as a proxy for low-income family status. The results revealed three findings. First, they indicated students who were identified as receiving free and reduced meals were associated with a greater number of absences. Secondly, the results highlighted that students who were identified as having a low socioeconomic status (SES) received lower grades than their peers. Finally, the results highlighted that students with a greater number of absences received lower grades than their peers who attended school more regularly (Morrissey et al., 2014). The findings from this study connected attendance to achievement, and even more importantly, showed that the students who benefitted the most from attending school were those from low-income families.

Another family factor influencing student attendance rates is mobility. Families move for a variety of reasons. Families can relocate for a variety of reasons, including to seek new employment opportunities, follow an employer’s request, seek a better neighborhood, escape crime, seek affordable housing, or respond to homelessness. Family mobility is a complex factor that can negatively affect students and have a detrimental impact on attendance rates (Park & Kanyongo, 2012). In 1994, the U.S. Government

Accountability Office reported that one out of every six children had attended three different schools by the time they completed elementary school (General Accounting Office, 1994). One of the reasons mobility is so detrimental to student academic success is that when students move, gaps form in their educational attainment as different school districts and states cover different parts of the curriculum at different times, resulting in mobile students missing key information during transition. Mobile students also experience incorrect placement within the school setting (Park & Kanyongo, 2012). Starting at a new school can compound anxiety that already exists around learning difficulties, making these students still more likely to miss school. As previously noted, student self-esteem and self-concept regarding academic capability is linked to increased absenteeism (Booth & Gerard, 2011).

Students changing school placement also interrupts the learning process. In a study examining mobility, researchers sought to determine the impact of mobility and attendance on academic performance (Park & Kanyongo, 2012). The sample from the study came from the 2004–2005 school year when enrollment for the participating district totaled 32,000 students (Park & Kanyongo, 2012). The data collected was archival in nature and stored by the participating school district. Investigators employed a variety of statistical models and found that mobility and nonattendance had a negative impact on student performance (Park & Kanyongo, 2012).

In a similar study, researchers from the University of California, Santa Barbara examined the impact of student mobility occurring between eighth and 12th grade on high school graduation. Built around the conceptual framework that student mobility is one facet that impacts student achievement and that those students from stable environments are

more likely to perform at higher levels and have greater attendance patterns, the researchers pulled data from the National Education Longitudinal Survey of 1988 (Rumberger & Larson, 1998). The results of the study “supports previous research that shows that student mobility reduces the odds of high school graduation” (Rumberger & Larson, 1988, p. 30). The results also showed that high rates of absenteeism predicted instances of mobility and lower levels academic achievement (Rumberger & Larson, 1998).

A growing body of research over the years has pointed directly to the adverse impact of poverty on children’s growth and development (Romero & Lee, 2008). Researchers have learned that the challenges experienced by families living in poverty can interfere with the manner in which the family functions as a whole as well as inhibit cognitive development (Chang & Romero, 2008; Williams, 2003). In many studies, the

risk factors commonly examined include: poverty; food insecurity; low parental education; low maternal IQ; parental unemployment; single parent status; teen parenthood; use of social assistance; poor parental physical and mental health; large family size; living in rented housing; overcrowding and poor housing conditions; homelessness; child maltreatment; non-stimulating home environment; little parental responsiveness, teaching and interaction; over-reliance in harsh discipline techniques; little contact with the father; parent involvement with the justice system; stressful life events, and quality of child care environment. (Romero & Lee, 2008, p. 1)

Families struggling with these events often lack the time and money needed to help their children navigate the risk factors and events that can negatively affect academic performance and attendance (Black et al., 2014; Kearney, 2008).

In one study examining the contextual influences both the neighborhood and family have on a child’s educational attainment, researchers pulled data from the 1981 and 2001 waves of information from the Ontario Health Study, which was “a prospective study of child health psychiatric disorder, and adolescent substance use among an enlisted cohort

of 3,294 children aged 4–16 years, living in 1,869 households” (Boyle et al., 2007, p. 172). The family component of the study was divided into three categories—status, capacity, and process (Boyle et al., 2007). Family status was measured by the following five variables—income, rental property, maternal age at birth, number of siblings, and parents’ home or origin. Family capacity was measured by the following five variables—average years of parental education, functional limitations, chronic medical health, hospitalization for nervous conditions, and one or both parents treated for nervous conditions. Finally, family process was divided into two measures—family functioning and frequency of punishment (Boyle et al., 2007). The results of the study showed that all of the family status variables as well as the family capacity variables—minus the place of origin—were associated with educational attainment. The family process concept focusing on discipline had no bearing on attainment. These results demonstrated the significant impact that family has on educational attainment.

In another study, using data from the Early Childhood Longitudinal Study, researchers investigated the “prevalence of risk factors known to threaten young children’s healthy development and early school success” (Romero & Lee, 2008, p. 2). These risk factors such as being raised by a single mom or a teenaged mom, a parent with chronic health issues, or growing up in a family experiencing unemployment or food scarcity were analyzed to determine their impact on attendance and academic performance. What researchers uncovered was that students who were exposed to a greater number of risk factors were more likely to have more instances of chronic absenteeism than their peers who did not experience these risk factors (Romero & Lee, 2008). It was found that in kindergarten, “21 percent of children with 3 or more risks were chronic absentees,

compared to 5 percent of children without risks” (Romero & Lee, 2008, p. 10). These findings showed that the family and the circumstances a student is born into significantly affects academic achievement and the ability of the student to attend school regularly.

Finally, one of the family-related factors affecting attendance relates to conflicting values and priorities between the school and families (Balfanz & Brynes, 2012; Black et al., 2014; Chang & Romero, 2008; Kearney 2008). Some families put little emphasis on school attendance. This is seen often times in the early grades such as in prekindergarten and kindergarten as many view these years as transitional periods leading into formal education (Balfanz & Byrnes, 2012). For many families, great value is placed on vacation time, and they do not see the time away from school as detrimental to academic success, which places them in direct conflict with teachers who must catch the students up with the class (Chang & Romero, 2008; Gottfried, 2015).

School-Related Factors

One aspect of chronic absenteeism that administrators, teachers, and districts across the country must confront is the fact that they play a vital role in whether or not students attend school. The environment of the school itself is a contributing factor relating to high instances of chronic absenteeism (Chang & Romero, 2008). The quality and design of the school building (Branham, 2004; Durán-Narucki, 2008; Maxwell, 2016), the ability to build quality and lasting relationships (Anderson, Christenson, Sinclair, & Lehr, 2004; Bowen, Richman, Brewster, & Bowen, 1998; Miranda-Zapata, Lara, Navarro, Saracostti, & De-Toro, 2018), and a lack of appropriate academic rigor (Black et al., 2014; Chang et al., 2019; Owusu-Kyeremaa, 2012; Schanfield, Chang, & Osher, 2019) have all been shown to be contributing factors to whether or not students attend school.

In his book *Blueprint for Tomorrow: Redesigning Schools for Student-Centered Learning*, Prakash Nair (2014) argued that the structure of buildings themselves are directly linked to the manner in which people think about and react to them. He argued that “nowhere is the dictum ‘first impression counts’ more true than when it comes to the entry of a typical school. The experience of entering a building powerfully influences the way a person feels inside it” (p. 45). Students are much more likely to be present in school each and every day if they feel safe, and schools with poor facilities or too many negative security measures such as metal detectors do the opposite of encouraging attendance (Black et al., 2014; Chang et al., 2019). Creating a welcoming space can make a space more secure, and through “thoughtful design, we can introduce visual and spatial cues that provide a sense of place and belonging for all who arrive and that sets a pleasurable tone” (Nair, 2014 p. 45). When the school environment does not communicate safety or a welcoming environment, the cases of high absenteeism increase (Chang & Romero, 2008).

One often cited theory for building design and perceived safety is the broken window theory first proposed by Wilson and Kelling in 1982. As previously mentioned, they hypothesized that if a window in any type of structure is left broken, all other windows in the building and surrounding buildings will soon be broken (Wilson & Kelling, 1982). It was argued that “such neglect would then bring about a new culture of disorder, fear, and isolation throughout the locale. Things that appeared to be in chaos would bring the perception of illegal action” (Branham, 2004, p. 1112), and soon, no matter the neighborhood or community, the area would cease being safe. Hypothesizing that this theory would hold true for schools, researchers conducted a study focusing on Houston ISD, which consisted of 226 schools and served over 190,000 students (Branham, 2004).

Utilizing data from the Texas Comptroller's Office from the 1996 and 1997 school years, researchers utilized attendance and dropout rates as dependent variables and compared them to the four specific variables of the Texas Performance Review, which was used to evaluate school facilities (Branham, 2004). The variables of the Texas Performance Review were:

(1) the amount of temporary space the school used, (2) whether the school was in need of structural repair, (3) the number of custodians at the school in relation to the size of the school, and (4) the total amount of facility space per student. (Branham, 2004, pp. 1116–1,117)

The results of the study showed that three of the four variables were statistically significant in their impact on student attendance (Branham, 2004). They found that schools utilizing temporary spaces, were in need of structural repair, and lacking an appropriate number of custodians to properly care for the building all correlated with high instances of absenteeism.

In a similar study examining the same hypothesis regarding the broken window theory, researchers hypothesized that (a) better school ratings were predictive of school climate, (b) higher school climate ratings increased student attendance rates, (c) improving attendance rates improved test scores, and (d) better ratings of school conditions were associated with test scores (Maxwell, 2016). Pulling data from 292 schools spread across Manhattan, the Bronx, Brooklyn, Queens, and Staten Island, researchers looked solely at Grades 7– 9 (Maxwell, 2016). Archived data from the New York City Department of Education regarding attendance, test performance, and school ratings was utilized. Each of the four hypotheses were supported by the results of the study, showing that school building condition has a significant impact on student attendance and test scores (Maxwell, 2016).

In another study investigating building conditions and their impact on student performance, researchers used school attendance as the mediator between the two variables (Durán-Narucki, 2008). Arguing that school attendance was linked to student achievement as students must be present at school to participate and engage in the learning process, researchers looked at elementary schools spread across New York City and collected data from 113 schools. Data regarding building condition came from the Building Condition Survey, which helps guide district and city officials about which buildings are in the greatest need of repair (Durán-Narucki, 2008). The results of the study uncovered a statistically significant relationship between school building conditions and school attendance. When controlling for factors such as SES, school size, and teacher quality, it was found that school buildings that were in poor condition increased the number of absences and detrimentally impacted student performance (Durán-Narucki, 2008).

Beyond the design of schools and their appearance, schools that do not foster positive relationships with students and parents increase the likelihood of absenteeism. When teachers are unable to forge strong relationships with students, the probability of students disengaging from school increases because students need to feel supported, encouraged, and empowered. (Black et al., 2014; Chang & Romero, 2008; Kearney, 2008). These connections allow students to feel successful. Relationships are one of the greatest assets to creating resilient children, and a growing body of literature has shown the positive impact of having one caring adult in a child's life (Anderson et al., 2004). For many students, some of the most important and influential relationships they make in school are with staff members. One intervention model utilized to increase student engagement is the check & connect model. The concept behind the model is that student engagement is

measurable by attendance, grades, class participation, and other indicators, and students who begin to show signs of disengagement are assigned interventionists who check in and build relationships with them (Anderson et al., 2004). These interventionists meet with students on a weekly basis and communicate with the family about the student's progress.

In a study examining the quality of relationships between check & connect interventionists and students, researchers sought to determine if quality relationships were associative with improved student engagement and attendance (Anderson et al., 2004). The sample population for the study consisted of 80 students who had been receiving check & connect services for 20 months or more (Anderson et al., 2004), and data was collected from the Monitor-Student Relationships Survey, which was intended to measure the quality of relationships between students and interventionists (Anderson et al., 2004) as well as attendance. The study utilized two logistic regressions, and it was found that “the odds of improving in attendance were 2.94 times greater for every unit increase in the monitor survey average and 3.72 times greater for every unit increase in the student survey” (Anderson et al., 2004, p. 106). The study showed that high quality and close relationships between students and interventionists can increase student attendance and engagement.

In an earlier study, researchers sought to determine the impact of student perceptions and sense of coherence experienced at school on student engagement (Bowen et al., 1998). Pulling data from 21 middle and high schools across North Carolina during the 1995–1996 school year, researchers looked at over 665 students who were participants in the Communities in Schools Program. Participating students completed the School Success Profile, which was designed to measure the school environment and students' ability to adapt within it (Bowen et al., 1998). The data collected from the study revealed

students' sense of coherence and perceived safety correlated significantly with teacher support (Bowen et al., 1998). For students who interacted with teachers who demonstrated acts of caring, respect, and appreciation, those factors created a sense of belonging that positively impacted achievement (Bowen et al., 1998).

In another study, researchers found supporting evidence that relationships were a key component to increasing student engagement and attendance. They found that “the contextual factor *teachers* has the greatest positive influence on school engagement” (Miranda-Zapata et al., 2018, p. 6). Pulling data from 1,170 participants in the study sample and utilizing a correlational cross-sectional design, they found that emotional engagement that was created from positive relationships improved attendance and grades. These studies showed that relationships with caring adults at school had a significant impact on student attendance, and when students felt unconnected to any caring adults within the building, they were at greater risk of missing school and struggling academically.

Finally, schools that are unable to provide students with relevant and academically challenging work see high levels of absenteeism as students do not see the relevance of attending school each day (Black et al., 2014; Chang et al., 2019; Kearney, 2008). For some schools, student boredom could be an indicator of low-quality teaching practices (Kearney, 2008). Schools that lack high-quality lessons, lack student-centered learning environments, and fail to meet the developmental needs of students will see low levels of student interest in attending school and a lack of support from parents (Osher, Cantor, Steyer, & Rose, 2018).

In a previously mentioned study conducted by Get Schooled, researchers conducted over 516 interviews in 25 cities during the summer of 2012. The sample of the study

focused on secondary-level students with the intent of better understanding why students skip school. Throughout the interview process, one of the questions posed to participants pertained to what would make them want to come to school more often (Get Schooled, 2012). One of the more telling responses was that 83% of students stated that if they could see how education was connected to their future aspirations, they would attend more regularly. The researchers believed chronic absenteeism could be reduced if students could better see how what they were learning applied to their future lives. Many students cited school as being boring and stated they preferred to hang out with their friends. “Nearly 45% of all students said the key reason for skipping school is that it is ‘more fun spending time with friends’ than it is going to school” (Get Schooled, 2012, p. 10). In line with the literature addressing chronic absenteeism, these responses highlighted how many students become disengaged with the learning process when they cannot see the connection between what they are learning and what they want to do later in life.

Similarly, in a multistage probability sample design study, researchers collected data from the 2003 Monitoring the Future national survey (Henry, 2007). To determine the associations between truancy and other school-related risk factors, such as school engagement, over 10,000 student responses to the survey were analyzed. The results suggested “prosocial bonds (including bonding to school) precludes problem behavior, proposing that weak school bonds free adolescents from adhering to conventional norms that discourage problematic behaviors (Henry, 2007, p. 34). Students who were disengaged from school were more likely to skip school and have lower aspirations. Students who feel motivated, challenged, and engaged by school are more apt to attend school than those who do not have such a connection.

Community-Related Factors

One reality every child and person on the planet has in common is the simple fact that no one chooses the family or community they are born into; and both of these factors are extremely influential in who a person becomes and the things they value. Communities that are severely distressed (Chang & Romero, 2008; Owens, 2010), are unsafe and experiencing high levels of crime (Burdick-Will, 2016; Gottfried, 2014; Harding, 2009), and lack social and educational support services all contribute to student absenteeism (Black et al., 2014; Kearney, 2008)

For many students, high levels of chronic absenteeism may be an indicator that students are living in poverty and in distressed neighborhoods. Since the 1990s, the number of students living in severely distressed neighborhoods has been on the rise. A community is

considered severely distressed when its population shares at least three of the four following characteristics: high poverty rate, a large percent of single mothers, a high concentration of high school dropouts, and a high percentage of unemployed working-age males. (Chang & Romero, 2008, p. 16)

In one study, researchers examined the impact of neighborhood SES and surrounding resources on student educational attainment in both high school and college. In the study, one hypothesis was “that neighborhood SES will be positively associated with educational attainment” (Owens, 2010, p. 291). The reasoning behind this line of thinking was that more affluent neighborhoods would have more opportunities for higher paying jobs, fewer instances of crime, better networking opportunities, and more emphasis on education. Pulling data from the National Longitudinal Study of Adolescent Health, the researcher used a multilevel logit model to determine how neighborhood SES impacted graduation (Owens, 2010). The study revealed that neighborhood SES was a greater

predictor of college graduation rates than it was of high school graduation rates (Owens, 2010). Living in neighborhoods with low SES, more single parents, and high rates of poverty and crime negatively impacted high school graduation rates, but neighborhoods with higher SES were more correlated with college graduation. It was argued that this was in part due to the resources surrounding families with higher SES and the access these students could draw on to complete college, whereas students from low income neighborhoods lacked the necessary supports.

High levels of chronic absenteeism may be an indicator of students living in an unsafe neighborhood with high crime rates (Black et al., 2014; Kearney, 2008). Students who live in neighborhoods with high instances of crime and gang-related activities begin to lose trust in the people surrounding them, including school officials, and they begin to believe that the things they want in life are unattainable (Black et al., 2004; Chang & Romero, 2008; Kearney, 2008). Students living in these neighborhoods are also more likely to miss school due to the perceived safety risk of traveling to a from the school building without support or security.

The research surrounding the impact of neighborhoods on student academic achievement was clear about the impact such environments have on students. Students who live in areas with high rates of crime are less likely to graduate from high school than students from safe neighborhoods (Burdick-Will, 2016; Harding, 2009). In one study, researchers examined the full extent to which a student's neighborhood impacts their academic performance (Burdick-Will, Stein, & Grigg, 2019). The researchers sought to determine how a commute through a community deemed dangerous would affect a student's decision to attend school and the impact of that decision (Burdick-Will et al.,

2019). The study focused on the city of Baltimore and pulled address data from over 4,000 ninth graders from the 2014–2015 school year. The choice to focus on Baltimore for the study came from the fact Baltimore City Public Schools allowed students to choose whatever high school they would like to attend, but they did not provide transportation to those schools. The city had a subsidized public transit system, but no students were transported to school by the public school system, which left many to walk to and from school each day (Burdick-Will et al., 2019). The results of the study showed a strong relationship between the safety of a student’s commute and their attendance. Students who walked through violent communities were more likely to be absent from school (Burdick-Will et al., 2019).

In another study examining the impact of neighborhoods on student achievement, researchers analyzed data from a large-scale, longitudinal data set of multiple cohorts of students attending the Philadelphia School District as well as U.S. Census data (Gottfried, 2014). Gottfried (2014) specifically explored the relationship between neighborhood poverty and attendance. The sample of the study consisted of 223 neighborhood elementary and middle schools that accounted for 80,592 students (Gottfried, 2014). The number of student absences was the dependent variable of the study and the neighborhood attributes were the independent variables. The study found that

There is a significant relationship between neighborhood poverty and income levels and school absences. For instance, the results show that higher neighborhood poverty levels predict higher student absences, thereby providing support for the hypothesis that students may begin to question the value of attending school as more neighbors are at or below the poverty threshold. (Gottfried, 2014, p. 240)

The study also found that in neighborhoods where more people owned their homes, there were fewer absences than in those neighborhoods where a larger portion of families

rented homes (Gottfried, 2014). The study also revealed that neighborhoods with large family size or younger adult parents experienced higher levels of absenteeism. The researchers hypothesized this may have been due to fewer resources in the community to ensure students were making it to school (Gottfried, 2014). The results of this study highlighted the important role a community plays in ensuring students attend school by impressing on the student the value of getting an education.

Finally, communities that lack social and educational supports also affect absenteeism because a lack of community resources can negatively affect a family's ability to support their children in school. Spaces like public libraries offer families places to take their children and get them help on school work. These public spaces also make visible and tangible statements to the public about the importance the community places on education (Black et al., 2014). Simple supports such as afterschool care help boost parental involvement and keep students out of trouble (Lara et al., 2018), and when these supports are missing in communities, students are at greater risk of absenteeism.

Academic Impact of Chronic Absenteeism

Over the past 10 years, a body of growing research has pointed to the important link between academic achievement and attendance (Applied Survey Research, 2011; Chang & Romero, 2008; Chang et al., 2019; Ginsburg et al., 2014; Hanover Research, 2016; London et al., 2016; Lara et al., 2018; Musser, 2011). Put simply, students must be present in school in order to learn (Balfanz & Brynes, 2012), and chronic absenteeism is shown to have determinantal effects on educational achievement at all levels (Hanover Research, 2016). In the foundational years of education, attendance has been linked to student grade-level performance (Applied Survey Research, 2011) and has been considered

one of the best predictors of student graduation and dropout rates (Balfanz & Brynes, 2012).

Early Education

Students are at their greatest risk of high levels of absences in the early grades of school in part due to their lack of control regarding attendance. Many parents do not realize the impact of attendance on their students' academic performance in the elementary grades, nor do they understand how quickly the effects of absences can add up (Attendance Works & Campaign for Grade-Level Reading, 2014). Starting in elementary school, chronic absenteeism is linked to poor reading and numeracy skills, higher retention rates, and lagging social emotional skills (Hanover Research, 2016; Jordan & Miller, 2017), which is critical in America, as educators and policy makers are grappling with a growing crisis in early literacy.

National assessments have pointed to how nearly two thirds of all fourth graders in the United States do not read on grade level (Annie E. Casey Foundation, 2014), and for those students coming from low SES backgrounds, the numbers are even more alarming. Close to 80% of these students are not reading on grade level by fourth grade (Annie E. Casey Foundation, 2014). As educators contend with this new crisis, attendance is one key factor in success. Kindergarten and first grade success sets the foundation for all future success in education, and as was found in studies conducted in Chicago and Baltimore, absenteeism in these two grade levels impacts children's ability to read proficiently by third grade (Attendance Works & Campaign for Grade-Level Reading, 2014; Dubay & Holla, 2015; Ginsburg et al., 2014).

A longitudinal, quantitative study conducted in California by Applied Survey Research sought to determine if there was a link between attendance in the early grades and third-grade standardized test performances. The sample of the study was drawn from Santa Clara and San Mateo counties in California where the researchers examined the data from 19 participating school districts and over 640 students (Applied Survey Research, 2011). The researchers found that 64% of students with good attendance in kindergarten scored proficiently on third-grade English language arts as compared to only 41% who were chronically absent. One of the most striking findings was the fact that only 17% of those students who were chronically absent in both kindergarten and first grade scored in the proficient range in both the reading and mathematics portion of the California Standards Test (Applied Survey Research, 2011; Attendance Works & Campaign for Grade-Level Reading, 2014).

Utilizing the national dataset gathered from the ECLS-K, Douglas Ready sought to determine if links existed among social class, attendance, and student achievement for elementary students (Ready, 2010). Making the claim that few researchers have investigated the impact of chronic absenteeism in the elementary grades on student achievement, he focused his research on three topics: (a) the relationship between class and attendance in kindergarten, (b) the impact of attendance on literacy and mathematics development, and (c) the relationships between class and academic achievement. Analyzing the results of over 42,229 test scores in both reading and mathematics from over 13,613 children, Ready (2010) found, “even after controlling for SES, children who were chronically absent—those with absence rates one standard deviation above the mean—gain roughly 14% fewer literacy skills during the 9.5-month kindergarten year compared to

children with average school attendance rates” (p. 279). What was even more striking was how students from lower SES backgrounds struggling with chronic absenteeism were in danger of falling up to 75% behind (Ready, 2010). Education is often heralded as the great equalizer, but Ready’s research pointed to how achievement depended on consistent attendance—even more so for students from low SES backgrounds—and the impact of missing large amounts of school in the early grades puts students on a trajectory to struggle throughout school and ultimately be in danger of dropping out.

Secondary Education

As important as attendance is in the early grades, it is equally important to monitor in the secondary grade levels. Just as chronic absenteeism in kindergarten and first grade can affect a student’s ability to be on grade level by third grade, chronic absenteeism in middle school is one of the strongest predictors of graduating on time. Students with strong attendance in elementary grades are still in danger of falling off track should attendance issues emerge in the later grades (Kieffer, Marinell, & Stephenson, 2011).

The purpose of education is to prepare students for the world that awaits them after high school, and as students progress through the education system, educators are constantly looking for warning signs that signal a student’s risk of not graduating. New research has emerged showing chronic absenteeism as one of the greatest predictors of a student not finishing on time or being in danger of dropping out (Allensworth et al., 2014; Chang & Davis, 2015; Ginsburg et al., 2014).

Looking for warning signs for students at risk of dropping out of high school, a team of researchers from John Hopkins University found that chronic absenteeism as early as the sixth grade predicated later drop outs (Balfanz, Herzog, & Mac Iver, 2007). In the

School District of Philadelphia where sixth grade marks the transition into secondary education, the team of researchers tasked themselves with identifying warning indicators for students at risk of dropping out. They created a longitudinal dataset focused on attendance, demographics, and achievement scores. The study sample consisted of 12,972 participants over the course of 8 years ending in 2004 (Balfanz et al., 2007). The results of the study showed that students who attended less than 90% of the school year during sixth grade were in danger of not graduating, and when students attended less than 80% of the school year or roughly 36 school days, the likelihood of them not graduating jumped to 75% (Balfanz et al., 2007). Of the cohort of students followed in the study, 15% attended less than 80% of the school year and by ninth grade, only 60% of them were on track to graduate. Out of the 15% who were flagged for attending less than 80% of their sixth-grade school year, only 13% graduated on time with another 4% graduating 1 year later (Balfanz et al., 2007). These findings pointed to the determinantal impact of missing too many days of school and how chronic absenteeism begins the disengagement process from school, putting graduation at risk.

Similarly, in an effort to determine the extent of the impact chronic absenteeism has on the students of Utah, the Utah Education Policy Center conducted a study examining the attendance rate for the state and the instances of chronic absenteeism. Confirming previous research, the attendance rate for the state of Utah was 95% for the 2010–2011 school year, and yet this statistic hid the fact that 13.5% of students were chronically absent that same year (Utah Education Policy Center, 2012). To better study the impact of chronic absenteeism, the researchers utilized two data sets. The first was cross-sectional and utilized data from all Utah students enrolled in public school during the 2010–2011 school

year. The other data set was longitudinal and followed eighth graders from the year 2006 to their graduation in 2010 (Utah Education Policy Center, 2012). The data showed that 9,847 students out of the 35,508 students (28%) in the data set were chronically absent at least 1 year from eighth to 12th grade. Out of that group, another 14% of students were chronically absent more than 1 year (Utah Education Policy Center, 2012). Researchers also found that students who were chronically absent were 13 times more likely to be absent again. They also found that students who were chronically absent at any point between eighth grade and their senior year were 7.4 times more likely to drop out of high school (Utah Education Policy Center, 2012). Chronic absenteeism and the dropout process were found to go hand-in-hand as students who started missing more days gradually became more disconnected with school.

For students in the middle grades, attendance rates and grade point average together are better predictors of graduation than race, SES, family background, and neighborhood characteristics (Allensworth et al., 2014). Student attendance has been shown to be inextricably linked to academic success, and as previously mentioned, the education system in the United States is based upon the understand that students must be present to learn and be successful (Balfanz & Brynes, 2012; Chang & Romero, 2008; RI DataHUB, 2015). Unfortunately, across the country, more than 7 million students experience chronic absenteeism and miss over a month of school each year, putting them at risk of falling behind academically and ultimately not graduating on time or at all (Balfanz & Brynes, 2012). As the issue relating to attendance across the country has emerged over the past decade, districts have risen to meet the issue and address it using multiple levels of intervention (Lara et al., 2018).

Interventions to Alleviate Chronic Absenteeism.

Chronic absenteeism is a complex puzzle with a variety of pieces that greatly impact the academic performance of students across the country (García & Weiss, 2018). This multifaceted problem derives from a range of underlying factors that vary from state to state, district to district, and school to school. The importance of addressing absenteeism cannot be understated, and as attendance receives greater attention, many interventions from the school level to the community level have shown promising results (John W. Gardner Center, 2012).

School-Based Interventions

In tackling the issue of chronic absenteeism, educators are on the front line. Being the ones who interact with students on a daily basis, they are the ones capable of identifying those students who are struggling and implementing interventions that work to improve school attendance. There are a number of interventions schools across the country are utilizing to target students with high absenteeism. Schools are using data to create early warning indicators (ED OCR, 2016; Lara et al., 2018; Olson, 2014), calling on mentors to foster positive relationships (Chang et al., 2019; Musser, 2011), and providing after school care (Chang & Jordan, 2012; Huang, Gribbons, Kim, Lee, & Baker, 2000; Welsh, Russell, Williams, Reisner, & White, 2002).

For schools and districts across the country, tracking attendance data is the first line of defense in addressing the issue head on. Research has pointed to the importance of creating data tracking systems and early warning systems to reduce chronic absenteeism (Lara et al., 2018). Defined by the ED OCR as “a system based on student data to identify students who exhibit behavior or academic performance that puts them at risk” (ED OCR,

2016, p. 1), early warning systems allow districts to identify data points such as attendance and truancy to detect those students in jeopardy of falling behind academically. These early warning systems should trigger interventions that address the issues.

One early warning system articulated by the Baltimore Education Research Consortium emphasizes the importance of tracking attendance in the month of September. To address chronic absenteeism and identify early warning systems, researchers looked at attendance rates of students in Baltimore and found “a majority of Baltimore City students (77.6%) missed fewer than 2 days in September” (Olson, 2014, p. 1). After following attendance patterns for the remainder of the year, the researchers found that student absences in September predicted student chronic absenteeism for the entire year. Students who missed 2 or more days in the month of September were much more likely to experience chronic absenteeism throughout the year, and those students who missed “more than four days were 16 times as likely to be chronically absent than students who were absent fewer than 2 days” (Olson, 2014, p. 2). When dealing with chronic absenteeism, the earlier the interventions take place, the better, and the results of this study pointed to the importance of utilizing data from the first month of school to identify those students most at risk of being chronically absent throughout the year.

Beyond utilizing attendance data from September as an early warning indicator of future attendance issues, research has pointed to how chronic absenteeism is not isolated to a single school year, but rather, is indicative of future attendance issues. Because of this, schools that keep track of student attendance from year to year have a powerful tool for identifying attendance issues before the first month of school as students who struggled with chronic absenteeism the year before are more than likely to experience the same issues

again (London et al., 2016). Schools utilizing this data can address students and put interventions in place before the school year even starts.

Another system that the literature pointed to for reducing chronic absenteeism was the implementation of a mentor program (Chang et al., 2019; Musser, 2011). In her 2013 TED Talk, Rita Pierson spoke to the importance of relationships in education and how every child “deserves a champion, an adult who will never give up on them, who understands the power of connection, and insists that they become the best that they can possibly be” (Pierson, 2013). Mentorship programs offer relational interventions where students who are identified as chronically absent are paired with a caring adult who builds a lasting relationship with the student (Chang et al. 2019; Hanover Research, 2016; Lara et al. 2018; Musser, 2011). These mentors check in on a student’s academic performance, advocate on behalf of the student, and identify strategies to help the student overcome attendance issues.

In New York City, the Success Mentor program was implemented in over 100 schools, assigning success mentors to those students identified as chronically absent. The mentors had numerous responsibilities such as greeting students, calling home for check-ins if students were sick, connecting families to resources, and working with school officials to create student specific interventions (Chang et al., 2014; Musser, 2011). The results of the initiative were significant as “students with mentors gained 9 school days—almost 2 weeks—during the year” (Chang et al., 2014, p. 1), and high school students who participated in the Success Mentors program were more likely to remain in school the following year than their peers (Hanover Research, 2016).

Feeling a sense of belonging and experiencing a caring relationship are basic desires that all humans seek, and students struggling with chronic absenteeism are those most in need of these relationships. Mentorship programs have been proven to be successful in addressing chronic absenteeism, but in order for this intervention to work, mentors must not only have access to student attendance data but have a strong relationship with the school administration as well (Balfanz & Byrnes, 2013).

Two reasons many students avoid attending school is because they have fallen behind academically or do not have a sense of belonging to the school. Mentor programs have been shown to effectively create a sense of belonging for students and provide academic interventions (Balfanz & Byrnes, 2013; John W. Gardner Center, 2012; Musser, 2011). After school programs offer similar benefits to those offered by mentorship initiatives within schools (Chang & Jordan, 2012; Huang et al., 2000; Welsh et al., 2002).

Another intervention that has proven to be successful in addressing student absenteeism is after school programs. After school programs can help students feel connected to adult mentors, provide them with more one-on-one tutoring for homework assistance, and relieve any stress families may have in trying to provide transportation home immediately after school (Hanover Research, 2016; Lara et al., 2018). Even when the intended goal is not improved attendance, after school programs improve attendance rates as students feel more connected to their school and peers.

In San Francisco, the Beacon Initiative is one example of how schools can utilize after school programs in partnership with teen centers to combat chronic absenteeism. Through participating campuses, students participating in the Beacon Initiative receive academic support and mentoring while also being exposed to recreational activities that

build community and relationships (Lara et al., 2018). Students who participated in this program “had 43% fewer school absences than low-level participants. Furthermore, 73% of students surveyed indicated that they planned to attend school daily as a result of the Beacon Initiative” (Lara et al., 2018, p. 5). Schools don’t have to partner with outside entities to create meaningful experiences for students, but by offering these opportunities to extend the day, schools can provide students with safe environments where they can remain until their parents or guardians can pick them up.

Family-Based Interventions

Good attendance does not begin with the school, but with the families and homes students come from, and when it comes to reducing chronic absenteeism, parents and families must be partners in the effort (Attendance Works & Campaign for Grade-Level Reading, 2014). One of the main issues plaguing families, especially in the early grades, is the lack of awareness about the importance of attending school. Many parents view grades such as kindergarten and first grade as transition periods into formal education and do not feel attendance is as important as in the later grades (Attendance Works & Campaign for Grade-Level Reading, 2014). Schools should not only emphasize the importance of being at school but should also emphasize good habits starting at home. From bedtime routines to laying out clothes for the following day, schools can point parents in the right direction for how to best prepare their child for success.

One of the most important aspect of engaging families in an effort to reduce absenteeism is maintaining clear and open lines of communication. These lines of communication are essential in helping families understand how absences impact their child’s academic achievement, and “through outreach, schools encourage

parents/guardians to not only send their children to school, but also provide helpful supports to ensure a reduction in absences” (Lara et al., 2018, p. 3). One form of outreach that has proven to be particularly beneficial is home visits. In the District of Columbia,

teachers from 27 elementary schools visited their students’ homes to engage parents/guardians in conversation about their children’s progress and activities for learning at home. Students whose families received visits had 24% fewer absences than those who did not receive a visit. (Lara et al., 2018, p. 3)

Finally, schools should use the beginning of the school year and the meet-the-teacher nights to meet with families and discuss attendance. During these events, families who have had a history of chronic absenteeism can receive information about targeted interventions from school officials to help create a plan for improving attendance in the new school year. Collaborating with families is of the utmost importance when addressing chronic absenteeism.

Community-Based Interventions

Chronic absenteeism does not occur in a vacuum and is not only a school issue. Often times, chronic absenteeism is a community-wide concern with sweeping implications. Communities must pay attention to helping students and families combat this issue because chronic absenteeism is a strong indicator of high school dropout rates and good attendance is linked to communities with lower instances of crime, greater employment, and stronger economies (Musser, 2011). Researchers in the literature recommended that schools form partnerships with stakeholders in the community to help conduct parent summits that invite community members to meet with parents, create reliable and safe transportation to and from school, and perhaps learn about and mimic

what other districts and communities are doing (Balfanz & Byrnes, 2012; Chang & Jordan, 2012; Hanover Research, 2016; Lara et al., 2018).

Many students and families from low-income backgrounds may be unaware of what resources are currently available in the community to help them with needs related to housing, legal counsel, counseling services, or health care (Chang, 2017). By creating parent summits, schools can bring in a variety of community resources to engage parents and offer them support (Hanover Research 2016; Lara et al., 2018). The John W. Gardner Center highlighted the importance of such events, explaining that they allow community members to pool resources and provide input into what is needed to support students and families (John W. Gardner Center, 2012).

Two often cited community reasons for why students skip school are unsafe neighborhoods and unreliable transportation (Cardoso & Verner, 2007; Kearney, 2008; Romero & Lee, 2007). Many students do not have access to reliable transportation, which forces them to walk to school. In dangerous communities, this option leads to an increase of absenteeism as students opt to stay home. One program that has been shown to help communities experiencing violence and gang-related activities is the Safe Passage Program, where adult monitors are placed along the route to school to ensure students have supervised routes to and from the school building (Chicago Police Department, 2020). Similarly, schools have created walking buses, where teachers and parents walk together to get students to and from school. These have been shown to reduce chronic absenteeism in dangerous neighborhoods (Lara et al., 2018).

For schools looking to engage their community stakeholders, a number of programs exist to support schools and districts across the country. One program that has been

successful is Communities in Schools. Across the country, “approximately 1 in 6 children under the age of 18 live in poverty, shouldering more than they should have to. Communities in Schools works directly inside schools, building relationships that empower students to succeed in and outside the classroom” (Communities in Schools, 2020, par 1). The organization has worked with over 2,300 schools, placing trained professionals on school campuses who can work with students and create systems to decrease absenteeism (Lara et al., 2018).

Another program that has seen success is the Diplomas NOW program. Working with schools and the community and serving over 26,000 students in over 13 cities, Diplomas NOW helps set goals for students related to attendance, behavior, and grades. Diplomas NOW (2019) has also helped to create early warning indicators to identify when students are falling off track. They track this data on a biweekly basis to ensure all students are successful, and they have seen a reduction in absenteeism rates and an increase in student success behaviorally and academically (Diplomas NOW, 2019). Both Communities and Schools and Diplomas NOW have demonstrated the power community partnerships can have within the school setting to serve the needs of students.

Chronic absenteeism is a problem that cannot be tackled by school officials alone. Often times, chronic absenteeism is a community-wide issue that requires the involvement of all stakeholders (Balfanz & Byrnes, 2012; Chang & Jordan, 2012; Hanover Research, 2016; Lara et al., 2018). Resolving this problem requires the collaborative efforts of families, communities, and school districts to ensure that students understand the impact attendance has on achievement and have access to the resources and interventions needed to help them attend school consistently.

Chapter Two Summary

Most school districts and educators operate under the assumption that students are consistently present. Simply put, students must be present to learn, and over the past 10 years, research has indicated that over 7 million students miss over a month of school each year (Balfanz & Byrnes, 2012). Different from truancy, which only focuses on unexcused absences, chronic absenteeism refers to all absences a student accumulates throughout the school year, and growing research has shown that high rates of absence erode the foundation education is intended to establish for each student's future success (Chang & Romero, 2008). In response to this growing issue, many states have started tracking chronic absenteeism as part of the success indicator required by the ESSA.

There are a number of reasons why students are absent, and the literature review encompassed multiple aspects of this complex issue. For many students, health and access to healthcare is one of the leading reasons why they miss school (Chang & Davis, 2015). For other students, chronic absenteeism is an indicator that issues may be present in the home such as domestic abuse, homelessness, or a high level of mobility. Schools can also contribute to chronic absenteeism. When schools do not offer welcoming environments or students do not feel as if they have a significant relationship with an adult in the building, they are less inclined to attend school; one significant relationship can make the difference between attending and not attending (Blum & Libbey, 2004). Finally, the literature showed communities are a factor that influence chronic absenteeism. Students who grow up in unsafe neighborhoods where there is violence or gang-related activity are less likely to show up to school, and a high number of absences can alert school officials to the need to

intervene and partner with community resources on behalf of the students (Chang & Romero, 2008).

The literature review pointed to the determinantal impact of chronic absenteeism on student achievement as students who experience a high number of absences in elementary school are less likely to be on grade level and read proficiently by third grade. Students in the middle grades who experience chronic absenteeism were found to be at greater risk of not graduating on time or dropping out altogether (Allensworth et al., 2014; Chang & Davis, 2015; Ginsburg et al., 2014).

Finally, the literature review included an examination of a variety of interventions that research has identified as being effective in combatting chronic absenteeism. At the school level, the research highlighted the importance of early indicators and warning systems created from data collection to help tap students early in the school year for intervention (Lara et al., 2018). New York City found that utilizing mentors in schools and pairing them with students struggling with attendance was extremely beneficial in reducing absences (Chang et al., 2014). Researchers also pointed to the importance of engaging families and informing them of the importance of attending school because many families are unaware of how the accumulation of absences negatively impacts their child. These researchers also argued that in addition to partnering with families to address absenteeism, schools should look at and engage with community resources as well.

Chapter Three of this study provides a description of the methodology used to gain a better understanding of the topic and to determine if there is a link between a high number of absences in kindergarten and student performance on standardized test scores in the third grade within Central ISD. Chapter Three includes the following sections: (a) introduction,

(b) research questions, (c) site selection, (d) participant selection, (e) research design and methods, (f) data collection methods, (g) data analysis, and (h) summary.

CHAPTER THREE

Methodology

Chapter Three addresses the methodological aspects of the study. The purpose of the study was to determine the degree to which chronic absenteeism in kindergarten was associated with and predictive of student achievement on a state summative third-grade mathematics and reading achievement assessments. Chapter Three is divided into seven sections. The first section is a discussion of the study's research paradigm and guiding philosophy. The second section outlines the research design, and the third provides a review of the guiding research questions. The fourth section is a description of the sample population studied and the fifth a description of the instrumentation utilized. The sixth section reviews the procedures for data collection. In the seventh section, a discussion of how the data analyzed is provided and is followed by a summary of the chapter.

Over the past 10 years, a growing body of research has highlighted the importance of the relationship between student attendance in school and academic achievement (Applied Survey Research, 2011; Attendance Works & Campaign for Grade-Level Reading, 2014; Chang & Romero, 2008). Simply stated, students must be present in school to learn (Balfanz & Brynes, 2012). Jordan and Miller (2017) perhaps best summarized the issue in noting the detrimental impact chronic absenteeism exerts upon student achievement in early education and how students with low attendance rates are more likely to not read on grade level by the third grade (Applied Survey Research, 2011).

Research Paradigm

The paradigm guiding the study was rooted in postpositivism. This paradigm is a challenge to the 19th-century philosophy of positivism, which held that an absolute truth and reality existed that was guided by natural laws and was independent of individuals' daily lives. The belief was that this truth could be broken down into manageable parts to ascertain how all the pieces fit together. In this paradigm, the purpose of research was to determine how to break those pieces down and determine how reality worked (Fraenkel, Wallen, & Hyun, 2019). Quantitative research is associated with positivism as it is guided by the scientific method (Fraenkel, et al., 2019); however, this study does not reflect a positivist belief of absolute truth but rather was founded on postpositivism, the belief that absolute truth is never attainable because general research is never perfect; it is always flawed by things such as bias or errors in measurement (Phillips & Burbules, 2000).

Research Design

In broad methodological terms, the study was nonexperimental and quantitative. Mathematical relationships of an associative and predictive nature were utilized to address the study's five research questions. Study data was archival in nature and limited to one school district located within a midsized metropolitan area in the southwestern region of the United States.

Quantitative research studies provide an opportunity to collect a wide range of information regarding occurring phenomena in the world and separate them into measurable categories (Golafshani, 2003) while simultaneously allowing for the examination and testing of the relationships between different variables (Creswell, 2014). Moreover, by utilizing a variety of instrumentation, quantitative researchers take an

objective approach to testing theories by measuring and manipulating variables and utilizing statistical procedures to better understand the relationships being measured (Creswell, 2014).

Research Questions

In order to address the study's topic and research problem, five research questions were formulated.

- RQ1. To what degree was absenteeism in kindergarten associated with and predictive of achievement on the third-grade math STAAR test, and was the associative and predictive effect of absenteeism in kindergarten greater for female or male students in the study?
- RQ2. To what degree was absenteeism in kindergarten associated with and predictive of achievement on the third-grade reading STAAR test, and was the associative and predictive effect of absenteeism in kindergarten greater for female or male students in the study?
- RQ3. Was the rate of absenteeism in kindergarten more associated with and predictive of achievement on third-grade math or reading STAAR tests?
- RQ4. To what degree was absenteeism in kindergarten associated with and predictive of achievement on the third-grade math STAAR test by participant socioeconomic status?
- RQ5. To what degree was absenteeism in kindergarten associated with and predictive of achievement on the third-grade math STAAR test by participant socioeconomic status?

Sampling Method

The study's sample was nonprobability in nature, and more specifically, convenient and purposive. As such, broad generalizations of study findings are not appropriate beyond the parameters of the study. For the purposes of the study, fourth-grade students who were enrolled in a school district located within a mid-sized metropolitan area of the southwestern region of the United States were selected for participation. The study's sample population consisted of over 300 students. Student performance data from the 2018–2019 state summative test as well as their attendance records from the 2015–2016 school year represented the independent and dependent variables in the study. The study's sample far exceeded the threshold of 50 recommended participants for studies seeking mathematical relationships of an associative and predictive nature (Fraenkel et al., 2019).

In determining the conclusions of a study regarding a population or sample, Fraenkel et al. (2019) noted that it is not possible for researchers to determine that a sample perfectly represents the population at large because there are bound to be differences between the two. It should be noted that if a sample is drawn from random selection and is of the appropriate size, then the differences between the sample and the population begin to shrink, but the question of what constitutes an appropriate size always remains (Fraenkel et al., 2019).

Instrumentation

Within the state of Texas, students in Grades 3 through 12 are administered the STAAR test, a standardized summative academic assessment. Designed to assess student progress through school and measure student growth, the STAAR provides school districts with important information about how well a student is performing academically in school

and identifies areas and gaps where intervention may be necessary. Each question in the STAAR test aligns with the curriculum teachers utilize to guide their instruction. Standards known as the Texas Essential Knowledge and Skills align the curriculum utilized by educators across the state, and every test question found on the STAAR test links to these standards, thus ensuring educators the opportunity to identify concepts in the curriculum that were challenging to students (TEA, 2019d).

Measures associated with the STAAR test provide academic achievement indicators for students enrolled in the K–12 Texas public education system. Moreover, STAAR academic achievement measures indicate whether students are performing at the grade level of their enrollment. The aggregate results for the STAAR test are disaggregated into four categories: (a) does not meeting grade level, (b) approaches grade level, (c) meets grade level, and (d) masters grade level. For the 2018–2019 third-grade reading test, the raw score breakdown by category is as follows: (a) did not meet raw score of 1330 or less; (b) approaches raw score was between 1345 and 1457; (c) meets raw score was between 1468 and 1521, and (d) masters raw score was 1521 or greater.

Students who do not meet grade-level academic achievement performance levels demonstrate that they do not possess the basic knowledge expected of a student at their particular juncture in the educational process, and those who are approaching grade level display some grasp of the knowledge expected and require supports to get them on grade level. Students who meet and master grade level material indicate they command a strong understanding of the material and are on track to graduate with the necessary knowledge and skills (TEA, 2019c).

Data Collection Procedures

The study's independent and dependent variables were data sources represented in archival form. Archival data are preexisting data that was collected prior to the creation of a given study and can include numerical records, visual documents, and other already coded empirical data (Vogt, Gardner, & Haeffele, 2012). All archival data exists for a purpose that for all intents and purposes is generally outside the control of the research, a fact that may lead to a variety of interpretations for which researchers must account (Vogt et al., 2012). For this reason, data were sorted and disaggregated to include only the information needed to address the research questions guiding this study.

In order to collect the required data from the local school district, written permission from the district was obtained. Assurances were made within the institutional review board process of the research site that all data would be redacted of student identifiers and would be stored on a secure, password protected server that was provided by the research site. After 3 years, all data concerning this study will be electronically deleted.

Data Analysis

A variety of descriptive, inferential, and associative/predictive statistical techniques were used in the analysis, interpretation, and reporting of findings with respect to the study's five formally posed research questions. Preliminary data analyses involving the study's data set focused on issues of missing data, demographic information, and descriptions of attendance patterns and academic achievement in the areas of reading and mathematics. Missing data was analyzed using descriptive statistical techniques. Specifically, frequency counts and percentages were utilized for illustrative and

comparative purposes. The randomness of missing data was assessed using Little's MCAR test statistic. An MCAR value of $p > .05$ is considered indicative of sufficient randomness of missing data. Essential demographic information and descriptions of attendance patterns and academic achievement in the areas of reading and mathematics were analyzed using only descriptive statistical techniques. Specifically, frequency counts and percentages were utilized for illustrative purposes.

Research Questions 1 and 2 were predictive in nature, employing one independent predictor variable. As such, the simple linear regression test statistic was employed to assess predictive robustness of the respective independent variables in each question. Predictive model fitness was assessed through the interpretation of the analysis of variance table F value. An F value of $p < .05$ is considered reflective of a viable predictive model. The variable slope values represented the means by which the statistical significance of independent variables was interpreted. Values of $p < .05$ were considered statistically significant. R^2 values were utilized as the basis for effect size measurement purposes. R^2 values were transformed into Cohen's d values for interpretive purposes. Cohen's parameters of interpretation of effect sizes were employed for comparative purposes. The second portion of Research Questions 1 and 2 was addressed using the Fisher's r to z transformation statistical technique for statistical significance testing purposes between the r values for male and female study participants and Cohen's q for the effect of difference between the r values for male and female study participants.

In Research Question 3, a comparison was featured using the mathematical association between student attendance and academic achievement for reading and mathematics. Therefore, Research Question 3 was addressed using the Fisher's r to z

transformation statistical technique for statistical significance testing purposes between the r values for reading and mathematics, and Cohen's q for the effect of difference between the r values for reading and mathematics.

Research Questions 4 and 5 were predictive in nature, employing one independent predictor variable. As such, the simple linear regression test statistic was employed to assess predictive robustness of the respective independent variables in each question. Predictive model fitness was assessed through the interpretation of the analysis of variance table F value. An F value of $p < .05$ is considered reflective of a viable predictive model. The variable slope values represented the means by which the statistical significance of independent variables was interpreted. Values of $p < .05$ were considered statistically significant. R^2 values were utilized as the basis for effect size measurement purposes. R^2 values were transformed into Cohen's d values for interpretive purposes. Cohen's parameters of interpretation of effect sizes were employed for comparative purposes.

The analysis, interpretation, and reporting of findings for the study were conducted exclusively using the 26th version of IBM's Statistical Package for the Social Sciences. Initial retrieval of archival data from the study's research site was in Excel spread sheet form. Results were then transferred to tables in Chapter Four of the study.

Summary

Chapter Three provided an explanation into the methodology utilized by the researcher, which included a list of the research questions guiding this study, the research design, data collection procedures, and the population as well as the site selection for the study. The purpose of this quantitative, nonexperimental study was to determine first, to what degree attendance in kindergarten was associative with and predictive of performance

on the third-grade STAAR test, and secondly, to provide the local school district with the information needed to guide interventions for those students with a high number of absences.

Chapter Four includes the findings from this study. The chapter is divided into three main sections. The first section provides a summary of the data collection. The second section consists of an overview of the research questions. The final section presents the findings that address each research question.

CHAPTER FOUR

Results

The purpose of the study was to determine the degree to which absenteeism in kindergarten was associated with and predictive of student achievement on a state summative third-grade mathematics and reading achievement assessment. A nonexperimental research approach was undertaken utilizing archived student achievement data associated with one school district located in the southwest region of the United States. Five research questions were posed and addressed through a variety of descriptive, inferential, and associative/predictive statistical techniques. Chapter Four contains a presentation of findings for each of the five research questions, as well as analyses conducted of a foundational, preliminary nature.

Missing Data

The study's three essential data arrays of kindergarten attendance rate, third-grade mathematics achievement scores, and third-grade reading achievement scores were 100% intact. Students selected for the study attended Central ISD from their kindergarten year to their third-grade year. In light of the complete intactness of the study's essential data arrays, all 336 students selected for inclusion in the study were deemed eligible. Students who had moved from the district prior to their fourth-grade year or who entered the district after their kindergarten year were not included in the study.

Internal Reliability

The Cronbach's alpha statistical technique was used to determine the internal consistency of study participant performance in reading and mathematics. The statistical significance of finding for alpha was assessed using an *F*-test. The internal consistency of study participant achievement across both mathematics and reading was $\alpha = .77$ ($p < .001$).

Demographic Information

Considering the gender of study participants, the sample was nearly evenly divided, with 50.3% ($n = 169$) identified as male, and the remaining 49.7% ($n = 167$) as female. Nearly one third (31.3%; $n = 105$) of the study's sample were reported to be economically disadvantaged by SES. Nearly 60% (57.1%; $n = 192$) of study participants were identified as White by ethnicity, with 37.8% identifying as either Black (14.3%; $n = 48$) or Hispanic (23.5%; $n = 79$).

Attendance Findings

Within the study participant sample, 84.8% of participants had missed 5 days or less during the school year identified for study purposes. A total of 14.5% ($n = 29$) of study participants had missed either 1 day or attended school 100% of the time during the calendar year of the study. The lowest recorded attendance rate within the study's sample was 86% ($n = 3$). The average attendance rate for the cohort of students was 97%, which was 1.3% higher than the average attendance rate for the state of Texas (i.e., 95.7%; TEA, 2019a).

Table 4.1 contains a summary of attendance information associated with participants in the study.

Table 4.1

Study Participant Attendance Finding: Attendance and Attendance Rate

Category	<i>n</i>	Mean	SD	Range
Attendance	336	171.56	4.27	152–177
Attendance rate	336	96.90%	0.02	86%–100%

Attendance Findings by Gender

Considering student attendance by gender of study participant, female study participants attended school, on average, at a greater rate than did their male counterparts in the study (mean difference = 1.53). Using the *t*-test of independent means for statistical significance testing purposes, the mean difference favoring females was manifested at a statistically significant level ($p = .001$). The magnitude of effect for the difference in attendance favoring female study participants was considered approaching a medium effect ($d = .36$).

Table 4.2 contains a summary of the comparison of school attendance by gender of study participant.

Table 4.2

Attendance Comparison by Gender of Study Participant

Gender	<i>n</i>	<i>M</i>	SD	<i>t</i>	<i>d</i>
Female	167	172.33	3.95	3.33***	.36
Male	169	170.80	3.45		

Note. *** $p = .001$.

Attendance Findings by Socioeconomic Status

Considering student attendance by SES of study participant, not economically disadvantaged study participants attended school at a nonstatistically significant ($p = .45$) degree greater than their counterparts identified as economically disadvantaged. The magnitude of effect for the difference in attendance favoring not economically disadvantaged study participants was considered trivial ($d = .09$).

Table 4.3 contains a summary of the comparison of school attendance by SES of study participant.

Table 4.3

Attendance Comparison by Socioeconomic Status of Study Participant

Socioeconomic status	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>d</i>
Economically disadvantaged	105	171.32	5.13	0.74	.09
Not economically disadvantaged	209	171.71	3.83		

Academic Achievement Findings

Two dependent variables were featured in the study: mathematics achievement and reading achievement. Study participants demonstrated a slightly higher overall level of mean achievement in the subject area of mathematics than they did in reading (mean difference = 34.82). Study participant proficiency rates were also 4.4% higher for the area of mathematics compared to proficiency rates in the area of reading. The magnitude of effect for difference in the comparison favoring mathematics was considered small ($d = .23$).

Table 4.4 contains a summary of finding for overall mean score achievement for study participants in the areas of mathematics and reading.

Table 4.4

*Study Participant Overall Academic Achievement Finding:
Mathematics and Reading Scale Scores*

Subject area	<i>n</i>	<i>M</i>	<i>SD</i>	Range
Mathematics	336	1571.81	151.94	1,136–1,897
Reading	336	1536.99	149.85	1,162–1,895

Academic Achievement by Study Participant Gender

Considering the gender of study participants, comparisons of academic achievement were conducted in both mathematics and reading. Using the *t*-test of independent means for statistical significance testing purposes, mean scores of male study participants were statistically significantly higher than their female counterparts in the area of mathematics ($p = .02$). In the area of reading, females performed at a slightly higher, nonstatistically significant degree compared to their male study counterparts. The magnitude of effect favoring the overall mean performance of female study participants was considered trivial ($\Delta = .02$).

Tables 4.5 and 4.6 contain summaries of findings in the academic achievement comparisons by gender of study participants.

Table 4.5

*Academic Achievement Comparison by Gender of Study Participant:
Mathematics Scale Scores*

Gender	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i>	Δ
Female	167	1,551.80	140.96	2.42*	.28
Male	169	1,591.59	160.04		

Note. * $p = .02$.

Table 4.6

*Academic Achievement Comparison by Gender of Study Participant:
Reading Scale Scores*

Gender	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i>	Δ
Female	167	1,538.10	141.81	0.14	.02
Male	169	1,535.89	157.80		

Academic Achievement Comparison by Socioeconomic Status

Considering the SES of study participants, comparisons of academic achievement were conducted in both mathematics and reading. Using the *t*-test of independent means for statistical significance testing purposes, the mean scores of study participants identified as not economically disadvantaged were manifested at statistically significantly higher levels in both mathematics and reading than their study counterparts identified as economically disadvantaged. The magnitude of effect in both comparisons were considered between medium and large ($g = .63$ for mathematics; $g = .68$ for reading).

Tables 4.7 and 4.8 contain summaries of findings in the academic achievement comparisons by SES of study participants.

Table 4.7

*Academic Achievement Comparison by Socioeconomic Status of Study Participant:
Mathematics Scale Scores*

Socioeconomic status	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>g</i>
Economically disadvantaged	105	1,516.67	145.18	5.24***	.63
Not economically disadvantaged	209	1,608.38	147.13		

Note. *** $p < .001$.

Table 4.8

*Academic Achievement Comparison by Socioeconomic Status of Study Participant:
Reading Scale Scores*

Socioeconomic status	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>g</i>
Economically disadvantaged	105	1,478.85	140.48	5.66***	.68
Not economically disadvantaged	209	1,574.01	140.66		

Note. *** $p < .001$.

Research Question 1

RQ1: To what degree was absenteeism in kindergarten associated with and predictive of achievement on the third-grade math STAAR test, and was the associative and predictive effect of absenteeism in kindergarten greater for female or male students in the study?

Using the simple linear regression statistical technique for associative and predictive purposes, the mathematical relationship between study participant attendance and achievement in mathematics was weak ($r = .08$) and nonstatistically significant ($p = .13$). The predictive model was not viable ($F_{(1, 334)} = 2.29$; $p = .13$). Study participant attendance contributed only 1% ($r^2 = .01$) to the explained variability of data in the model's dependent variable (i.e., mathematics achievement). The predictive effect for study participant attendance was considered small ($d = .20$). Two violations of assumptions associated with the use of the simple linear regression statistical technique were noted: significant outliers and nonnormally distributed residuals (Shapiro-Wilk's $p < .001$).

Table 4.9 contains a summary of predictive information associated with the model used in the first portion of Research Question 1.

Table 4.9

Predicting Third-Grade Mathematics Achievement by Study Participant Kindergarten Attendance

Model	β	SE	Standardized β
Intercept	1,068.63	332.93	
Attendance	2.93	1.94	.08

In the second portion of Research Question 1, the associative or predictive effect of study participant kindergarten attendance upon third-grade achievement in mathematics was evaluated. As a result, the associative/predictive effect of study participant kindergarten attendance upon third-grade achievement in mathematics was greater for male participants than was the case for female participants. Moreover, the associative/predictive effect for male study participant kindergarten attendance upon third-grade achievement in mathematics was manifested at a statistically significant level ($p = .005$).

Table 4.10 contains a summary of finding for the comparison of associative/predictive effect in the second portion of Research Question 1.

Table 4.10

Comparison of Associative/Predictive Effect of Kindergarten Attendance and Third-Grade Mathematics Achievement by Gender of Study Participant

Gender	<i>r</i>	<i>r</i> ²	<i>d</i>
Female	.03	.001	.06
Male	.22	.047	.46***

Note. ****p* = .005

Research Question 2

RQ2: To what degree was absenteeism in kindergarten associated with and predictive of achievement on the third-grade reading STAAR test, and was the associative and predictive effect of absenteeism in kindergarten greater for female or male students in the study?

Using the simple linear regression statistical technique for associative and predictive purposes, the mathematical relationship between study participant attendance and achievement in mathematics was weak ($r = .05$) and nonstatistically significant ($p = .41$). The predictive model was not viable ($F_{(1, 334)} = 0.68$; $p = .41$). Study participant attendance contributed less than 1% ($r^2 = .002$) to the explained variability of data in the model's dependent variable (i.e., mathematics achievement). The predictive effect for study participant attendance was considered trivial ($d = .09$). Two violations of assumptions associated with the use of the simple linear regression statistical technique were noted: significant outliers and nonnormally distributed residuals (Shapiro-Wilk's $p < .001$).

Table 4.11 contains a summary of predictive information associated with the model used in the first portion of Research Question 2.

Table 4.11

*Predicting Third-Grade Reading Achievement by Study Participant
Kindergarten Attendance*

Model	β	<i>SE</i>	Standardized β
Intercept	1,265.26	329.12	
Attendance	1.58	1.92	.05

In the second portion of Research Question 2, the associative/predictive effect of study participant kindergarten attendance upon third-grade achievement in mathematics was evaluated. As a result, the associative/predictive effect of study participant kindergarten attendance upon third-grade achievement in reading was slightly greater for male participants than was the case for their female study counterparts. Moreover, the associative/predictive effect for male and female study participant kindergarten attendance upon third-grade achievement in reading was manifested at a nonstatistically significant level ($p > .05$).

Table 4.12 contains a summary of finding for the comparison of associative/predictive effect in the second portion of Research Question 1.

Table 4.12

*Comparison of Associative/Predictive Effect of Kindergarten Attendance and Third-
Grade Reading Achievement by Gender of Study Participant*

Gender	<i>r</i>	<i>r</i> ²	<i>d</i>
Female	.05	.002	.09
Male	.12	.013	.23

Research Question 3

RQ 3: Was the rate of absenteeism in kindergarten more associated with and predictive of achievement on third-grade math or reading STAAR tests?

The associative/predictive effect of study participant kindergarten attendance was slightly more associated with and predictive of subsequent academic achievement scores in the academic achievement area of mathematics. However, the associative/predictive effect favoring the academic area of mathematics was trivial (Cohen's $q = .03$) and manifested at a nonstatistically significant level (Fisher's $z = 0.39$; $p = .34$).

Research Question 4

RQ4: To what degree was absenteeism in kindergarten associated with and predictive of achievement on the third-grade math STAAR test by participant socioeconomic status?

Using the simple linear regression statistical technique for associative and predictive purposes, the mathematical relationship between study participant attendance and achievement in mathematics by SES was weak ($r = .17$) and nonstatistically significant ($p = .45$). The predictive model was not viable ($F_{(1, 20)} = 0.58$; $p = .45$). Study participant attendance contributed 2.8% ($r^2 = .028$) to the explained variability of data in the model's dependent variable (i.e., mathematics achievement). The predictive effect for study participant attendance was considered between small and medium ($d = .34$). Two violations of assumptions associated with the use of the simple linear regression statistical technique were noted: significant outliers and nonnormally distributed residuals associated with study participants identified as not economically disadvantaged (Shapiro-Wilk's $p < .001$).

Table 4.13 contains a summary of predictive information associated with the model used in Research Question 4.

Table 4.13

Predicting Third-Grade Mathematics Achievement by Study Participant Kindergarten Attendance and Socioeconomic Status

Model	β	SE	Standardized β
Intercept	2358.18	1140.74	
Attendance	-5.09	6.66	-.17

Research Question 5

RQ 5: To what degree was absenteeism in kindergarten associated with and predictive of achievement on the third-grade math STAAR test by participant socioeconomic status?

Using the simple linear regression statistical technique for associative and predictive purposes, the mathematical relationship between study participant attendance and achievement in reading by SES was weak ($r = .22$) and nonstatistically significant ($p = .34$). The predictive model was not viable ($F_{(1, 20)} = 0.97$; $p = .34$). Study participant attendance contributed 4.6% ($r^2 = .046$) to the explained variability of data in the model's dependent variable (i.e., reading achievement). The predictive effect for study participant attendance in Research Question 5 was considered approaching a medium effect ($d = .44$). Two violations of assumptions associated with the use of the simple linear regression statistical technique were noted: significant outliers and nonnormally distributed residuals associated with the reading scores of study participants identified as not economically disadvantaged (Shapiro-Wilk's $p < .001$).

Table 4.14 contains a summary of predictive information associated with the model used in Research Question 5.

Table 4.14

*Predicting Third-Grade Reading Achievement by Study Participant
Kindergarten Attendance and Socioeconomic Status*

Model	β	<i>SE</i>	Standardized β
Intercept	3,066.46	1,628.75	
Attendance	-9.37	9.51	-.22

CHAPTER FIVE

Conclusion

The purpose of the study was to determine the degree to which chronic absenteeism in kindergarten was associative with and predictive of student achievement on the STAAR test for third-grade mathematics and reading. This chapter contains a summary of the research as well as a presentation and discussion of the findings from the literature review and the study. The chapter concludes with a discussion of the limitations of the study, an exploration of the implications of practice for school districts, and recommendations for future research topics gleaned from the study.

Overview of the Problem of Practice

Over the past 10 years, the topic of chronic absenteeism has gained national attention and become a key element in school assessment formulas under ESSA (Jordan & Miller, 2017; Jordan et al., 2018). The reason for the growth in attention has been in part due to the 2013–2014 collection of national attendance data conducted by the ED OCR (2016). The findings from these data and subsequent data collected in 2015–2016 presented a startling discovery: It showed that each year nearly 8 million students missed over a month of school per year (ED OCR, 2016). This high number of absences placed students in high risk of being academically behind, being off track for graduating on time, and ultimately dropping out altogether (Allensworth et al., 2014; Applied Survey Research, 2011; Balfanz & Brynes, 2012; Chang & Romero, 2008; Jordan & Miller, 2017).

Unlike the issue of truancy, which focuses solely on those absences that are coded as unexcused, chronic absenteeism refers to the accumulation of all absences—excused and unexcused (Jordan & Miller, 2017). A growing body of research has supported the long-term, detrimental effects of high rates of absenteeism (Applied Survey Research, 2011; Chang & Romero, 2008; Chang et al., 2019; Ginsburg et al., 2014; Hanover Research, 2016; Lara et al., 2018; London et al., 2016; Musser, 2011). Chronic absenteeism for students in the elementary grades has been directly linked to performance in third grade (Applied Survey Research, 2011). It has also been linked to poor reading and numeracy skills, higher retention rates, and lagging social emotional skills (Jordan & Miller, 2017). In the secondary grade levels, chronic absenteeism coupled with grade point average is a better indicator of graduation rates than anything else (Allensworth et al., 2014).

The problem of addressing chronic absenteeism is multifaceted in nature with a variety of components unique to each student, community, and state. However, a growing body of interventions for use at the school, family, and community level have shown promise (ED, 2016; John W. Gardner Center, 2012; Lara et al., 2018; Olson, 2014), but more data are still needed to properly address the problem. In the coming years, and in light of the success assessment formulas implemented under ESSA, more useful data should be available to researchers to adequately address the problem of chronic absenteeism. The core issue of student academic achievement is to ensure the student's presence in the classroom so that learning can occur (Balfanz & Byrnes, 2012), and the work of getting students to school every day should be one of the top priorities of school districts.

Study Purpose

The purpose of the study was to determine the degree to which chronic absenteeism in kindergarten was associative with and predictive of student achievement on the STAAR test for third-grade mathematics and reading. Using the kindergarten attendance data from a cohort of fourth-grade students in Central ISD—a school district located within a mid-sized metropolitan area in the southwestern region of the United States—a variety of descriptive, inferential, and associative or predictive statistical techniques were utilized to analyze and interpret the data.

The study's topic and research problem were addressed through the following research questions.

- RQ1. To what degree was absenteeism in kindergarten associated with and predictive of achievement on the third-grade math STAAR test, and was the associative and predictive effect of absenteeism in kindergarten greater for female or male students in the study?
- RQ2. To what degree was absenteeism in kindergarten associated with and predictive of achievement on the third-grade reading STAAR test, and was the associative and predictive effect of absenteeism in kindergarten greater for female or male students in the study?
- RQ3. Was the rate of absenteeism in kindergarten more associated with and predictive of achievement on third-grade math or reading STAAR tests?
- RQ4. To what degree was absenteeism in kindergarten associated with and predictive of achievement on the third-grade math STAAR test by participant socioeconomic status?

RQ5. To what degree was absenteeism in kindergarten associated with and predictive of achievement on the third-grade math STAAR test by participant socioeconomic status?

Review of Findings

The study's data set was archival in nature, featuring student attendance and achievement data. The participant sample of the study consisted of 336 students who had been present in Central ISD from kindergartners through third grade. Within the study, 84.8% of the participants were found to have missed 5 days or less of school during the 2015–2016 academic year. The gender of the sample was nearly evenly split with 50.3% of the population being male and 49.7% being female, and it was found that female students attended school at a higher rate than their male counterparts.

One third of the population was reported to be economically disadvantaged by SES, yet the attendance rates for both economically disadvantaged and not economically disadvantaged students was nearly even. Though the two groups had identical attendance rates, there was a significant difference in achievement between the two groups as those students labeled as economically disadvantaged performed worse than their counterparts identified as not economically disadvantaged.

Review of Research Questions

The following section represents a review and discussion of the findings associated with the five research questions posed in the study. The format for addressing each question is as follows: restatement of the question, a summary of findings, and a review of those findings in comparison to the literature.

Research Question 1

RQ1: To what degree was absenteeism in kindergarten associated with and predictive of achievement on the third-grade math STAAR test, and was the associative and predictive effect of absenteeism in kindergarten greater for female or male students in the study?

Utilizing the Simple linear regression statistical technique, it was determined that the relationship between attendance and achievement in math was weak ($r = .08$) and nonstatistically significant ($p = .13$). It was also discovered that the predictive model was not viable because participant attendance contributed to only 1% of the shared variance of data between attendance and academic achievement in mathematics. The second portion of the research question relating to gender did, however, feature a statistically significant finding. It was found that the associative/predictive effect for the kindergarten attendance of the male study participants was statistically significant ($p = .005$).

The findings from this first research question support the growing body of research highlighting the impact of chronic absenteeism on academic performance; however, the findings are only supportive with regard to male attendance. In a similar study conducted by Applied Survey Research (2011), it was determined that there was a consistent trend linking student attendance in kindergarten to third-grade performance in both reading and math for both males and females. The study found that only 17% of those students who were chronically absent scored on the proficient level. In another study analyzing data from the National Assessment of Educational Progress, it was discovered that those students who missed 3 or more days in the month leading up to the test performed lower than students who had missed zero days (García & Weiss, 2018). One important note regarding

the professional literature on the topic of school attendance is that it does not contain clear support for differences between the genders relating to attendance.

Research Question 2

RQ2: To what degree was absenteeism in kindergarten associated with and predictive of achievement on the third-grade reading STAAR test, and was the associative and predictive effect of absenteeism in kindergarten greater for female or male students in the study?

As was the case in Research Question 1, and utilizing the simple linear regression statistical technique, it was determined that the relationship between attendance and achievement in reading was weak ($r = .05$) and nonstatistically significant ($p = .41$). It was also found that the study participants' attendance was not predictive and considered trivial ($d = .09$) in its predictive effect for both male and female participants though it should be noted that it was slightly higher for male participants, but not sufficient to be statistically significant.

What appears to be unique about these findings is that the majority of research findings (Annie E. Casey Foundation, 2014; Applied Survey Research, 2011; Chang & Romero, 2008; Chang et al., 2019; Dubay & Holla, 2015; Ginsburg et al., 2014; Hanover Research, 2016; Lara et al., 2018; London et al., 2016; Musser, 2011) all pointed to how inextricably linked chronic absenteeism was to academic performance, specifically in the area of reading. Currently, national assessments have pointed to a growing percentage of students who are not reading on grade level by fourth grade (Annie E. Casey Foundation, 2014), and one of the suspected causes for this is chronic absenteeism (Applied Survey Research, 2011; Attendance Works & Campaign for Grade-Level Reading, 2014; Jordan

& Chang, 2015). However, the current study does not support this conclusion as attendance was not linked to achievement on the reading STAAR.

Research Question 3

RQ3: Was the rate of absenteeism in kindergarten more associated with and predictive of achievement on third-grade math or reading STAAR tests?

As was noted in the discussion of Research Questions 1 and 2, it was determined that there was no significant relationship between attendance and achievement for either reading or math. However, it was found that kindergarten attendance for boys was predictive of math achievement in third grade.

Research Question 4

RQ4: To what degree was absenteeism in kindergarten associated with and predictive of achievement on the third-grade math STAAR test by participant socioeconomic status?

Utilizing the simple linear regression statistical technique, it was determined that the mathematical relationships between study participants and achievement in mathematics by SES was weak and nonstatistically significant. It was determined that SES along with attendance had a small predictive effect upon student achievement in the area of mathematics.

The results from Research Question 4 are important in that a significant amount of the research regarding chronic absenteeism indicates that high number of attendance issues are more prevalent among low-income students and have a greater impact on them (Balfanz & Byrnes, 2012; Balfanz & Byrnes, 2013; Chang, 2017; Chang & Romero, 2008; Garcíá

& Weiss, 2018; Ginsburg et al., 2014; Romero & Lee, 2007). Researchers have argued that it is low-income students who benefit the most from attending school each day and that their attendance paves a pathway out of poverty (Balfanz & Brynes, 2012), and yet, the findings of the current study highlight the fact that attendance is not associated with or predictive of future success even when accounting for SES.

Research Question 5

RQ5: To what degree was absenteeism in kindergarten associated with and predictive of achievement on the third-grade math STAAR test by participant socioeconomic status?

Similar to Research Question 4, the simple linear regression statistical technique was utilized to determine that the mathematical relationship between attendance and achievement in reading by SES was weak and nonstatistically significant. It should be noted that the predictive effect for study participant attendance approached a medium effect.

As previously noted in Research Question 4, the results from Research Question 5 are important in that numerous studies contain evidence supportive of the impact of attendance upon reading achievement, noting that the population most impacted by this issue are those who come from low SES backgrounds (Annie E. Casey Foundation, 2014; Applied Survey Research, 2011; Chang & Romero, 2008; Chang et al., 2019; Dubay & Holla, 2015; Ginsburg et al., 2014; Hanover Research, 2016; Lara et al., 2018; London et al., 2016; Musser, 2011). Within the professional literature it has been argued that low-income students are at greater risk of being chronically absent. National Assessment of

Educational Progress data were perhaps most supportive, showing that nearly 80% of low-income students were reading below grade level (Annie E. Casey Foundation, 2014).

In a study examining the impact of SES on attendance and achievement, researchers pulling longitudinal data from a large, urban public school district in Florida found that students who qualified for free and reduced lunch were also more likely to have higher rates of absenteeism and lower grades than their peers who did not qualify (Morrissey et al., 2014). Similarly, in another study focused on social class and school achievement in literacy and mathematics, researchers found that students from low-income backgrounds benefited the most from regular school attendance (Ready, 2010). In the data of over 13,613 children from the ECLS-K, it was found that students from low-income backgrounds experienced greater gains (almost 8%) in literacy than their more affluent peers (Ready, 2010). The research pointed to the important role attendance plays in supporting achievement, particularly for students from low-income backgrounds, but researchers have also noted that those same students who experience the most gains were also at the highest risk for experiencing chronic absenteeism (Ready, 2010).

Data from the current study does reflect an approaching medium predictive effect with regard to achievement in reading based upon attendance and SES. However, the relationship was found to be nonstatistically significant, which is striking as multiple studies point to student SES and attendance as having a statistically significant impact on academic achievement in literacy.

Limitations

There were a number of limitations that should be taken into account when interpreting the results from this study. One of the major limitations of the study was in its

nonexperimental design and nature. Due to the lack of direct manipulation of variables, it could not be assured that the results were solely linked to the data being observed and not due to other outside factors. There were a number of factors that could have influenced the data, and without an experimental design to test this, the results of the data cannot be guaranteed.

A second limitation of the study was in the lack of generalizability in its findings, a result of using the nonprobability sampling approach in selecting study participants. The sampling technique utilized for the study was nonprobability, convenient, and purposive by definition and was useful for the study. However, the use of nonprobability sampling techniques had the disadvantage of limiting the generalizability of the findings beyond the population from which the sample was taken. Generalizations of the study are not appropriate nor can they be appropriately applied for other cohorts of students within school districts within or outside the region in which the study sample was assessed.

Thirdly, the presence of significant outliers and nonnormally distributed residuals of the data impacted the interpretation of the results. The data collected for this study was archived kindergarten attendance data from the 2015–2016 school year, and the data was skewed towards high attendance. Over 85% of the students in the sample had missed 5 days or fewer, which was considerably high, but there was also a low number of students identified as SES. These factors impacted the results of the study as well as the interpretations that could be gleaned from the data set.

Implications for Professional Practice

The findings from the study have added to the growing body of research regarding chronic absenteeism and its impact on student achievement. The intent of the study was to

determine if attendance in kindergarten was associated with and predictive of third-grade achievement on the STAAR test, which if found to true, would have provided schools within the study's sampling site an early warning indicator of student future success. Despite the limitations of the study (i.e., the lack of generalizability, presence of outliers, and nonnormally distributed residuals in some predictive modeling), there are two major implications for professional practice worthy of mention from the study's findings

The first implication for professional practice is the predictive nature of kindergarten attendance for males upon future academic performance. The literature regarding chronic absenteeism contained evidence supportive of a strong relationship between attendance and academic achievement: high number of absences are predictive of future academic struggles (Applied Survey Research, 2011; Chang & Romero, 2008; Chang et al., 2019; Ginsburg et al., 2014; Hanover Research, 2016; Lara et al., 2018; London et al., 2016; Musser, 2011). The data from the current study appear to confirm this to be true regarding kindergarten attendance for males.

The second major implication for professional practice relates to how educators are meeting the needs of students with low SES. Prior research on the topic of student attendance contained an abundance of information supportive of how important attendance is for ensuring student academic success. The need to make sure students from economically disadvantaged backgrounds attend school would appear to be all the more important in light of the pejorative predictive effect economic disadvantage exerts upon academic achievement (Balfanz & Brynes, 2012; Chang & Romero, 2008; Chang et al., 2019; Dubay & Holla, 2015; Ginsburg et al., 2014; Hanover Research, 2016; Lara et al.,

2018; London et al., 2016). However, from the results of the current study, that does not appear to be the case.

Within this study, 105 of the participants were identified as economically disadvantaged, and over 209 students were labeled as not economically disadvantaged. Conventional wisdom on the issue of SES would dictate that those students identified as economically disadvantaged would manifest a higher rate of chronic absenteeism than their peers who were not identified as economically disadvantaged, and yet, the attendance rates for both groups were nearly identical at a difference of 0.39. In essence, there was not a full school day's difference between the two groups regarding respective school attendance rates. What appears important to note, however, is that despite there being almost no school attendance difference between the two groups, those students from economically disadvantaged backgrounds still performed at statistically significantly lower rates on both the reading and mathematics STAAR tests for third grade when compared to their peers who were not economically disadvantaged.

The high level of attendance rates for students labeled as economically disadvantaged does not appear to have facilitated any improvement in their subsequent academic performance. This fact appears to be counter intuitive to the notion in the field of education that tacitly infers level of academic achievement is directly connected to level of school attendance. Students who experience higher levels of attendance should experience higher levels of success, and yet the results still pointed to a gap in achievement between economically disadvantaged students and their peers who were not economically disadvantaged.

Recommendations for Future Research

The purpose of this study was to determine the degree to which chronic absenteeism in kindergarten was associative with and predictive of student achievement on the STAAR test for third-grade mathematics and reading. The study featured an examination of a cohort of fourth graders in one school district located in the southwest region of the United States, specifically examining archived data regarding their kindergarten attendance from the 2015–2016 school year and achievement on the 2018–2019 STAAR test. The study was designed to determine if attendance in kindergarten would provide an early warning indicator for those students at risk of falling academically behind.

One recommendation for future research would be to broaden the scope of the study. The data from the cohort of students featured in the study contained significant limitations regarding outliers and the presence of nonnormally distributed residuals in some predictive modeling used to address the research questions. The attendance rate for the study population was 97%, with 85% of the students missing 5 or fewer days. By broadening the scope of the study to other surrounding school districts, the larger and more diverse data set may provide greater insight into the relationship between absenteeism and achievement. Future studies could focus on the impact of repeated, long-term instances of chronic absenteeism in the elementary grade levels on not only STAAR performance, but ultimately, on graduation rates.

The issue of chronic absenteeism is a multifaceted issue with a variety of variables that impact student attendance. A second recommendation for future research would be to perform a mixed-methods study utilizing both quantitative and qualitative methodologies in analyzing the degree to which chronic absenteeism in kindergarten is associative with

and predictive of student achievement. Students fail to attend school for a variety of reasons and utilizing a mixed-methods approach may provide educators with a deeper, richer, and thicker understanding of the role school attendance plays in academic achievement.

In light of the complexity of the matter of school attendance and academic achievement, due in part to the multitude of independent variables impacting the paradigm, a possible solution may involve more robust research designs and statistical techniques. The inclusion of more independent variables in the design and statistical analyses associated with the designs may offer a clearer picture of the role various independent variables may play in influencing the relationship between school attendance and academic achievement.

Evaluating the possible moderating and mediating effects of independent variables would prove highly useful in designing programs that are sensitive to the moderating and mediating effects of variables associated with the link between school attendance and academic achievement. Path analysis and structural equations modeling may also offer viable design and statistical possibilities in future attempts at gaining a more comprehensive understanding of the role independent variables might play in explaining the relationship between school attendance and academic achievement.

Conclusion

Research on the topic of school attendance has been overwhelmingly supportive of the notion that school attendance is a critical component of academic success (Applied Survey Research, 2011; Chang & Romero, 2008; Chang et al., 2019; Ginsburg et al., 2014; Hanover Research, 2016; Lara et al., 2018; London et al., 2016; Musser, 2011). The findings of a variety of studies contained evidence in support of the deleterious effects of

chronic absenteeism and the notion that it places students in danger of becoming academically at risk. The aim of the current study was to determine the mathematical relationship that might exist between kindergarten attendance and third-grade performance. Although the study's findings did not validate the findings of prior research, a statistically significant relationship between the predictive nature of attendance in kindergarten on third-grade mathematics scores for male participants was manifested. No difference between the attendance rates of economically disadvantaged and not economically disadvantaged students was evident in the study's data, however, a noteworthy gap in achievement between the two groups was still evident.

As more states choose to monitor chronic absenteeism as a success indicator for ESSA, greater access to data regarding attendance should become more readily available for research purposes. With future access to this data, it is hoped that greater insight into the reasons for chronic absenteeism will be possible, along with more effective solutions for addressing the matter of student attendance and its relationship to academic achievement. When it comes down to it, students must be present in school to learn.

APPENDIX

APPENDIX

Institutional Review Board Approval



Baylor University

INSTITUTIONAL REVIEW BOARD – PROTECTION OF HUMAN SUBJECTS IN RESEARCH

NOTICE OF EXEMPTION FROM IRB REVIEW

Principal Investigator: Clinton Glaesmann
Study Title: An Examination into the Impact of Chronic Absenteeism in Kindergarten on Third Grade Reading and Math STAAR Scores
IRB Reference #: 1541201
Date of Determination: 01/06/2020
Exemption Category: 45 CFR 46.104(d)(4)

The above referenced human subjects research project has been determined to be EXEMPT from review by the Baylor University Institutional Review Board (IRB) according to federal regulation 45 CFR 46.104(d)(4): Secondary research for which consent is not required.

The following documents were reviewed:

- IRB Application, submitted on 12/22/2019
- Protocol, dated 12/14/2019
- Midway ISD Letter of Support, submitted on 12/22/2019

This exemption is limited to the activities described in the submitted materials. If the research is modified, you must contact this office to determine whether your research is still eligible for exemption prior to implementing the modifications.

If you have any questions, please contact the office at (254) 710-3708 or IRB@baylor.edu.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Deborah L. Holland'.

Deborah L. Holland, JD, MPH, CHRC, CHPC
Assistant Vice Provost for Research, Research Compliance

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