A CAUSAL-COMPARATIVE STUDY OF THE EFFECT OF PARENTAL INVOLVEMENT ON THE ACADEMIC ACHIEVEMENT OF STUDENTS IN A GEORGIA HIGH SCHOOL

by

Sharon Shantrelle Johnson

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

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APPROVED BY:

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ABSTRACT

The purpose of this causal comparative study was to establish the effect parental involvement had on academic achievement of students in a Georgia high school and to determine which type of parental involvement had a greater effect on the academic achievement for those students. This study was important because there was limited research that revealed the effect parental involvement had on academic achievement in a high school setting. This study followed a causal comparative research design and used a convenience sampling method which included 100 students and their parents, 64.9% African Americans, 14.9% Caucasians, and 8.5% Hispanic. Parental involvement was measured using the parent and student Family-School Partnership Scales survey; academic achievement was measured using the Georgia Milestones state assessment. Data were analyzed using two *t* tests to determine the differences in achievement of students with parental involvement and those with little to no parental involvement. Extreme outliers were identified using a box and whisker plot. Key findings revealed that there was a significant difference in academic achievement between high school students with parental support and high school students without parental support relative to reading scores. There was a significant difference in academic achievement between high school students whose parents primarily exhibited home-based educational involvement and high school students whose parents primarily exhibited school-based educational involvement relative to math scores. Future research recommendations are advanced.

Keywords: parental involvement, academic achievement, home-based, school-based

Copyright

Dedication

I would like to dedicate this dissertation to all my former students and the students of the Southeast Georgia School District. Throughout my teaching career, I have discovered the importance of parental involvement and its association with academic achievement. You all inspired me to conduct the research to establish the relationship and examine the types of parental involvement as it relates to academic achievement in secondary schools. Each and every one of you deserves the much-needed parental involvement to be successful throughout your educational journey. I wish you all the best in all future endeavors.

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This is a definite life-changing milestone within my life. I have acquired great knowledge throughout this journey. After many sleepless nights, I am very grateful to many people who have guided me throughout this process and have traveled this journey with me.

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Table of Contents

ABSTRACT....3

Copyright....4

Dedication....5

Acknowledgments....6

List of Tables....10

List of Figures....12

List of Abbreviations....13

CHAPTER ONE: INTRODUCTION....14

- Overview....14
- Background....14
- Problem Statement....18
- Purpose Statement....19
- Significance of the Study....20
- Research Questions....22
- Definitions....22

CHAPTER TWO: LITERATURE REVIEW....24

- Overview....24
- Theoretical Framework....24
  - Ecological Systems Theory....25
  - Hierarchy of Needs....26
- Related Literature....27
  - Academic Achievement....28

Academic Achievement and Gender Differences....28
Parental Involvement....31
Categories of Parental Involvement....36
Parental Involvement and Academic Achievement....53
Summary....54
CHAPTER THREE: METHODS....56
Overview....56
Design....56
Research Questions....57
Hypotheses....58
Participants and Setting....59
Instrumentation....60
Family-School Partnership Scale....61
Georgia Milestones Standardized Assessment....63
Procedures....65
Data Analysis....66
CHAPTER FOUR: FINDINGS....68
Overview....68
Research Questions....68
Null Hypotheses....69
Descriptive Statistics....70
Results....77
Null Hypothesis One....77

Null Hypothesis Two 80

Null Hypothesis Three 83

Null Hypothesis Four 86

Summary 90

CHAPTER FIVE: CONCLUSIONS 91

Overview 91

Discussion 91

Implications 95

Limitations 96

Recommendations for Future Research 96

References 98

Appendices 113

Appendix A: Permission Request Approval 113

Appendix B: IRB Permission Request Approal 114

Appendix C: Recruitment Letter for Participants 115

Appendix D: Child Assent Form 116

Appendix E: Parental Consent Form 117

Appendix F: Permission to Use Instrument 120

List of Tables

Table 1: Student Gender and Parental Support

Table 2: Race/Ethnicity

Table 3: Group Means of Academic Achievement by Parental Support

Table 4: Group Means of Academic Achievement by Type of Educational Involvement

Table 5: Coding of Variable

Table 6: Home-Based Parental Involvement from Parent Perspective

Table 7: School-Based Parental Involvement from Parent Perspective

Table 8: Primary Type of Parental Educational Involvement

Table 9: Descriptive Statistics

Table 10: Kolmogorov-Smirnov Test Results for Reading Academic Achievement by Parental Support

Table 11: Levene's Test for Equality Variances for Reading Academic Achievement by Parental Support

Table 12: *t*-Test Results for Reading Academic Achievement by Parental Support

Table 13: Kolmogorov-Smirnov Test Results for Math Academic Achievement by Parental Support

Table 14: Levene's Test for Equality Variances for Math Academic Achievement by Parental Support

Table 15: *t*-Test Results for Math Academic Achievement by Parental Support

Table 16: Kolmogorov-Smirnov Test Results for Reading Academic Achievement by Type of Parental Involvement

Table 17: Levene's Test for Equal Variances Results for Reading Academic Achievement by Type of Parent Involvement

Table 18: *t*-Test Results for Reading Academic Achievement by Type of Educational Involvement

Table 19: Kolmogorov-Smirnov Test Results for Math Academic Achievement by Type of Parental Involvement

Table 20: Levene's Test for Equal Variances Results for Math Academic Achievement by Type of Parent Involvement

Table 21: *t*-Test Results for Math Academic Achievement by Type of Educational Involvement

List of Figures

Figure 1: Parental Home-Based Involvement from Parent Perspective

Figure 2: Parental School-Based Involvement from Parent Perspective

Figure 3: Box and Whisker Plot of Reading Scores by Parental Support

Figure 4: Box and Whisker Plot of Math Scores by Parental Support

Figure 5: Box and Whisker Plot of Reading Scores by Type of Educational Involvement

Figure 6: Box and Whisker Plot of Math Scores by Type of Educational Involvement

List of Abbreviations

Interquartile range (IQR)

Parental Involvement (PI)

Socioeconomic Status (SES)

Science, Technology, Engineering, and Math (STEM)

CHAPTER ONE: INTRODUCTION

Overview

This chapter discusses the purpose of this causal comparative study which is to investigate the effect parental involvement has on the academic achievement of students in a high school in Georgia and to determine which type of parental involvement has a greater effect on that academic achievement. This chapter discusses the significance of the study which is to establish research in a high school setting because there is little to no research available establishing the relationship between parental involvement and academic achievement. This chapter discusses the effects parental involvement has on academic achievement as well as other variables that affect academic achievement. The study explored the effects of parental involvement on the academic achievement of secondary education students and the type of parental involvement which is most effective within the secondary education setting. The research questions related to this study explained the relationship between parental involvement and academic achievement. The chapter ended with questions that were important to understanding this study.

Background

Parental involvement has always been significant, and it has been said that education begins at home (Cole, 2017). According to the Bible, parents were obligated to teach their children. As noted in Proverbs 22:6, "Train up a child in the way he should go: and when he is old, he will not depart from it" (*King James Bible*, 1769/2017). Although education began at home, the responsibility of educating children is the shared responsibility of the parents as well as the school (Cole, 2017). In the 17th century, a law was established in the Massachusetts colony requiring all parents to educate their children in reading, religion, and a trade; therefore,

education became the primary responsibility of the parent. Furthermore, households had to hire a teacher at public expense (Chen, 2021). Chen (2021) further explained that children in America were being used in the workforce and the unions protested, a conflict which eventually led to formalizing education. Since some parents were violating the law, colonies were given local control of education, and the first schools were created by religious leaders. In education, parents were responsible for the support of the curriculum, choice of the teachers, and support of the religious teachings within the school; however, public education developed more in America and parental involvement changed (Chen, 2021). Chen (2021) further suggested that parental involvement in public education became a major issue in the 1900s.

At the beginning of the 20th century, parents became more involved at the lower education levels. They were expected to know the needs of their children and be involved there; however, this was somewhat limited to middle class families. In order to involve the disadvantaged families, Headstart was introduced in which parents were considered partners in education (Godfrey, 2016). Later, the Individuals of Educational Disabilities Acts, Goals 2000, and No Child Left Behind Act were introduced to promote support for parental involvement. Recently, the Every Student Succeeds Act (Center on Educational Policy, 2020) was passed to emphasize parental involvement. Despite the implementation of various acts, parental involvement continues to be an issue within education (Center on Educational Policy, 2020).

Parental involvement influences children's academic success (Malone, 2017). It has also had different effects besides student achievement. It affects motivation and engagement outcomes (Ross, 2016). Benner et al. (2016) suggested that a student's academic success is determined by a parent's involvement. According to Benner et al. (2016), parental involvement is fragmented within education; however, parental involvement has been linked to higher

academic achievement. Park and Holloway (2016) acknowledged that parental involvement promoted higher achievement, lower dropout rates, and greater engagement in school work. Just as Park and Holloway proposed (2016), Rattan et al. (2015) likewise suggested that parental involvement is needed in education to increase test scores and grades; however, they felt it was needed as a motivating factor as well. Therefore, the parents' role in education is necessary to have positive educational outcomes and student success (Costa & Faria, 2017).

Đurišic & Bunijevac (2017) further established that parental involvement is needed to establish reforms in schools, to improve school climate and programs, to develop parenting skills and leadership, and to assist families and teachers. Increased parental involvement is significant in the lives of students, teachers, and parents (Rattan et al., 2015). There are many benefits of parental involvement: parents are able to interact more with their child, teachers' relationships with parents improve, and the respect of teachers in the schools will be presented more positively in the community schools, which could lead to better programs for the school overall (Morgan, 2017). An advantage for students is that they are able to attain a level of success. An advantage for teachers is that involved parents can increase teachers' morale. An advantage for parents is that parental involvement allows parents to become better acquainted with the curriculum (Morgan, 2017).

On the other hand, there are barriers that hinder parental involvement, such as limited knowledge, lack of time and resources, as well as communication problems (Wang et al., 2016). Although parents have busy schedules, it is important for them to find the necessary time to be a part of their students' educational process. Educators must develop strategies to help parents overcome barriers (Morgan, 2017). If parents are participating in the learning process, the students will be granted more opportunities to maintain success throughout their educational

journey (Morgan, 2017). As the parents are involved, the students may be more motivated to learn. With parental involvement comes academic success, that is, more students could possibly achieve higher achievement levels (Morgan, 2017).

The theories of Bronfenbrenner (1981) and Maslow (1943) seek to explain how learning takes place. Urie Bronfenbrenner's ecological theory seeks to explain the effects that parental involvement has on academic achievement (Chun & Devall, 2019). This theory suggests how everything in a child's life affects the way he or she develops and grows (Bronfenbrenner, 1981). The first of the five systems, the microsystem, explains the child and his relationship with his family. The second of the five systems, mesosystem, explains the relationship between home and school, family and community, and peers and family. The third of the five systems, exosystem, explains the child and his relationship with people and places that indirectly affect his life such as the parent's workplace. The fourth of five systems, macrosystem, explains the child and his relationship with his belief and ideas. The fifth system, chronosystem, explains the child and his relationship with the change and consistency within his environment (Bronfenbrenner, 1981).

As Bronfenbrenner's ecological theory suggests, Maslow's hierarchy of needs seeks to establish the need for parental involvement as well. Maslow's hierarchy of needs is a humanistic approach that includes providing the basic necessities (Maslow, 1943). The first of five tiers, physiological needs, explains the biological needs of the child. The second of five tiers, safety needs, explains the child's need for safety and security. The third of five tiers, love and belongingness, explains the need for interpersonal relationships. The fourth of five tiers, esteem needs, explains the child's need dignity and respect. The fifth tier, self-actualization, explains the child's need for self-fulfillment (Kunc, 1992). In other words, parents must provide the necessary support for students to be successful in each of these tiers. All in all, these theorists establish the

importance of the roles of parents in the lives of their children. Therefore, understanding the effect of parental involvement within a high school setting is paramount.

Problem Statement

The lack of parental involvement can be detrimental to a student's academic success and motivation (Ross, 2016). Ross (2016) indicated that 34% of students with little to no parental involvement were more likely to drop out of school than other students. Therefore, it will be important to gain a better understanding of the impact of the lack of parental involvement in the lives of their secondary students. Parental involvement has a positive influence on academic achievement, and it has been found that students with parental support have higher reading and math scores than students that do not have the necessary parental support (Jafarov, 2015). Blank (2016) found that parental involvement can have a positive impact, not only on academic achievement but on student motivation. An additional study found that parental involvement improved behavior, attendance, and academics (Cole, 2017). Despite the type of improvement, studies have found the importance of parental involvement in the classroom and home.

The focus of the research was to determine the effects of parental involvement on the academic achievement of secondary students. There are several studies that identify the need and importance of parental involvement, test scores, grade point averages, reading and math levels, and motivation level at the primary level, but there are few studies available at the secondary level (Morgan, 2017; Wilder, 2015). According to Shumow et al. (2011), research has been conducted related to parental involvement in primary grades, but little has been conducted related to that involvement in secondary education students. Perriel (2015) established that parents are involved at the primary level; however, they are not aware of the benefits at the secondary level as they are not as involved. Wilder (2015) conducted a study that included

grades k-3 that suggested that parental involvement determined a student's academic outcomes. Furthermore, Jabeen et al. (2020) conducted a study that included 324 sixth grade students which indicated that parental involvement contributed to students' academic performance. These mentioned studies further establish the insufficient amount of research conducted within the secondary setting. Therefore, the problem is a lack of research establishing the relationship between parental involvement and academic achievement in secondary students and the most effective type of parental involvement as it relates to academic achievement within the high school setting.

Purpose Statement

The purpose of this quantitative, causal comparative study was to investigate the effect of parental involvement on the academic achievement of high school students in a high school in Central Georgia and to determine if there is a difference in the types of parental involvement as it relates to the academic achievement of high school students. The independent variables were parental support and types of parental involvement. Li et al. (2019) defined parental involvement as any form of parental participation in or allocation of resources toward children's education meant to support children's educational progress. School-based parental involvement is the parents' interaction within the school setting (Sebastian et al., 2016), and home-based involvement is parental activities that provide structure and support to student learning at home (Grijalva-Quiñonez et al., 2020). Parental involvement was measured using the Family-School Partnership Scales questionnaire. The dependent variable is the academic achievement of high school students. Kanadli (2016) defined academic achievement as the level of acquisition of the course attainments because of learning experiences that the students undergo in science, mathematics, language, social science; it is the product of the learning experiences provided in

any course to raise academic achievement by improving students' knowledge and skills. Academic achievement was measured using the state standardized assessments, Georgia Milestones. The sample population was chosen from a high school in the Central Georgia School District. A total of 100 high school students was selected through a convenience sample. The sample population of parents are those of the selected high school students.

Significance of the Study

According to the Mississippi Department of Education (White, et al., 2019), students with parental support are more likely to have higher test scores, better grades, better attendance, and a higher promotion rate. The lack of parental involvement, however, is an ongoing problem.

Benner, Boyle, and Sadler (2016) established the relationship parental involvement has on academic achievement. There are numerous studies that establish the relationship between parental involvement and academic achievement, but most of these studies are related to primary education. For example, a study which included 16 public elementary schools suggested that parental involvement was a key factor to academic outcomes (Lara & Saracosti, 2019). Another study including fifth and sixth grade students further indicated that parental involvement contributed to students' math performance (Rodriguez et al., 2017). Furthermore, Fajoju et al. (2016) examined the relationship between parental involvement and academic achievement in six primary-grade students. Findings indicated that students with parents who were involved in their education achieved higher scores in language, mathematics, and science than students with little to no parental involvement (Fajoju et al., 2016). In addition, Assefa and Sintayehu (2019) examined the relationship between parental involvement and academic achievement at both primary and secondary levels. Their findings indicated that students with parental involvement had a higher achievement rate than students with little to no parental involvement on both levels.

The types of parental involvement—home-based, school-based, and academic socialization—contribute to the effects of academic achievement, and there is a connection between parental involvement and academic achievement (Chun & Devall, 2019). Chun and Devall (2019) indicated that there was a greater home-based involvement than school-based involvement within the primary level. Chun and Devall (2019) further argued that academic socialization was most effective in promoting academic achievement among middle and high school students. According to a study conducted by Gan and Bilige (2019), eighth grade students' achievement scores were higher for students with supportive home-based parental involvement. An additional study (Boonk et al. & Brand-Gruwel, 2018) further established the relationship between parental involvement and academic achievement; however, they were unable to determine whether home-based parental involvement or school-based parental involvement was more significant to student achievement. Therefore, this current study will make a significant contribution to the research related to secondary education by not only identifying the effects of parental involvement as it relates to academic achievement but by determining if there is a difference in the type of parental involvement as it relates to academic achievement. If parental involvement is increased, academic achievement may increase. Then, the students may have higher test scores and grades and there could possibly be an improvement in behavior and attendance, as posited by Assefa and Sintayehu (2019). All in all, this study could add to the existing research and provide related information for all stakeholders involved: students, parents, teachers, and administrators. Therefore, this study may be very beneficial in understanding the influence of parental involvement in the achievement of their students in secondary schools.

Research Questions

RQ1: Is there a statistically significant difference in academic achievement as it relates to reading achievement scores between high school students with parental support and high school students without parental support?

RQ2: Is there a statistically significant difference in academic achievement as it relates to math achievement scores between high school students with parental support and high school students without parental support?

RQ3: Is there a statistically significant difference in academic achievement as it relates to reading achievement scores between students whose parents exhibit home-based parental involvement and students whose parents exhibit school-based parental involvement?

RQ4: Is there a statistically significant difference in academic achievement as it relates to math achievement scores between students whose parents exhibit home-based parental involvement and students whose parents exhibit school-based parental involvement?

Definitions

1. *Academic Achievement* – Academic achievement is defined as academic performance (Steinmayr et al., 2014).
2. *Academic Socialization:* Academic socialization is defined as a variable of parental involvement in which adolescents appraise the importance of education fostered by parents (Chun & Devall, 2019).
3. *Home-Based Parental Involvement*- Home-based parental involvement is parental engagement in parent-child activities outside of the classroom (Hurley et al., 2016).
4. *Parental Involvement* – Parental involvement is a social context that may support or undermine adolescent competence, relatedness, and autonomy (Wehrspann et al., 2016).

5. *School-Based Parental Involvement*- School-based parental involvement is communication between teachers and parents and parent participation in school activities (Li et al., 2019).

CHAPTER TWO: LITERATURE REVIEW

Overview

This literature review provides a theoretical understanding of parental involvement as it relates to academic achievement. A thorough review of the related research was conducted to identify studies that explore the impact of parental involvement on academic achievement in an educational setting. This chapter will provide an overview on the existing literature pertaining to the influence parental involvement has on student achievement in a high school setting as well as parental involvement barriers and teachers' perceptions. The first section will discuss Bronfenbrenner's ecological systems theory and Maslow's theory of human motivation and hierarchy of needs as a framework. The second section will synthesize the recent literature pertaining to parental support, school-based and home-based parental involvement, and effects of parental involvement on student achievement. The review will then consider studies regarding barriers to parental involvement, with a focus on socioeconomic status, schedule conflicts, and the lack of time. Finally, the review will address the benefits of parental involvement. The chapter will end with a related summary.

Theoretical Framework

The role of having a theoretical framework for quantitative inquiry is significant to the research process. Quantitative researchers are able to "study human behavior in natural or contrived settings" and "study behavior and other observable phenomena" (Gall et al., 2006, p. 32). This literature review will examine how parental involvement relates to academic achievement. From the early days of education, numerous theorists have promoted academic achievement and have sought to explain the importance of parental involvement. However, maintaining academic achievement has become a significant problem across the United States

(Rattan et al., 2015). Bronfenbrenner (1981) explained the significance of parental involvement through his ecological systems theory. Maslow (1943) explained the significance of parental involvement through his hierarchy of needs. The ecological systems theory includes five components: microsystem, mesosystem, exosystem, macrosystem, and chronosystem. These systems work interchangeably and coherently with the child. Furthermore, this theory describes parental involvement as a component which affects the development of the child (Rosa & Trudge, 2013). The hierarchy of needs theory was created while observing the development of students. The theory follows five constructs: physiological, safety, social, esteem, and self-actualization (Maslow, 1943). Unless the lower needs of the pyramid are achieved, students are unable to progress to higher levels of growth and development (Freitas & Leonard, 2011). All in all, the magnitude of the need for family is found within the ecological systems theory and the hierarchy of needs theory.

Ecological Systems Theory

Bronfenbrenner, an American psychologist who led the way in development psychology, child rearing, and human ecology, is best known for his ecological systems theory (Ceci, 2006). Bronfenbrenner's ecological systems theory (Bronfenbrenner, 1981) explained how the environment influenced the lives of children. The ecological systems theory explained how everything in a child's life affected the way that he or she developed and grew; therefore, it explained the importance of a child's environment. It is the foundation of child development. The reappearing constructs within this theory are microsystem, mesosystem, exosystem, and macrosystem (Bronfenbrenner, 1981). However, according to Bluteau et al. (2017), there is an additional construct presented within the ecological systems theory which is chronosystem. Bronfenbrenner (1981) and Bluteau et al. (2017) theorized that these four or five structures

influence the lives of children. The microsystem is a pattern of activities which take place in the child's immediate environment. The mesosystem is the setting in which the child actively participates. The exosystem is the setting that does not involve the active participation of the child. The macrosystem is the setting that influences the developing child (Bronfenbrenner, 1981). Bluteau et al. (2017) believed that the microsystem is influenced by individual factors, and the mesosystem is influenced by institutional factors. Furthermore, Bluteau et al. (2017), identified chronosystem as environmental events that occur throughout an individual's life. These structures included home, community, school, and society as well as family interactions. Within these contexts, students learn and grow, and they are influenced by their families, teachers, and others (Ma et al, 2016). Interactions within these structures establish relationships, and those relationships assist in the influence and development of the child. Since the microsystem focuses on the immediate influence in the life of the child, this structure within the ecological systems theory closely relates to the importance of parental involvement in the lives of children.

Hierarchy of Needs

Abraham Maslow was an American psychologist and philosopher who studied human behavior and motivation. Although he is well-known for his self-actualization theory, he is also known for his hierarchy of needs (Maslow, 1996). Maslow's (1943) theory of human motivation related to his hierarchy of needs theory. According to Kelly (2014), "the basis of the theory is that human motivation is motivated by unsatisfied needs" (para. 3). The reappearing constructs within this theory are physiological, safety, social, esteem, and self-actualization (Maslow, 1943). The physiological construct are basic needs of the individual and are the foundation of the theory of motivation. In order to improve academic motivation, parents and teachers must supply

these basic needs (Ricard & Pelletier, 2016). The safety construct, which is the security of the environment; however, to progress to the next level of needs within the hierarchy, the needs must be satisfied within the individual. The social construct focused on the relationship with others. The esteem construct focused on the egotistical needs of the individual. The self-actualization construct focused on the desire of total fulfillment (Maslow, 1943). In order to motivate individuals, the hierarchy of needs must be fulfilled. All in all, each need somewhat relies upon the prior need.

The hierarchy of needs helps establish the needed necessities of the child. The hierarchy of needs acknowledged that the parent must make sure the basic needs of the child are met (Maslow, 1943). Once the physiological needs are met, the child is motivated by the parents to proceed to the next level until he or she reached the final phase of the hierarchy. The parents address the child's psychological needs as well. The parents must make sure their child feels competent and independent, which will further motivate the child to be successful. Therefore, parental involvement must be used as a tool to promote academic achievement throughout the child's educational process. All in all, using this humanistic approach, it is important for parents to be involved to provide the necessary support for students to succeed.

Related Literature

Academic achievement has been proven to be affected by parental involvement (Opoku-Assare & Siaw, 2016). However, academic achievement is affected by other variables as well. Gender differences is an ongoing issue that affects academic achievement (Hdii & Fagroud, 2018). Furthermore, socioeconomic status and student motivation affects academic achievement (Bae & Wickrama, 2015; Wehrspann et al., 2016). Nonetheless, parental involvement is a

dominant factor for academic achievement which includes academic socialization, home-based parental involvement, and school-based parental involvement (Durisic & Bunijevac, 2017).

Academic Achievement

Achievement is the “human beings' ability to reach aimed-at targets and obtain desired outcomes in their lives in harmony with their environment and at peace with themselves” (Engin, 2020, p. 257), and academic achievement “is a performance indicator which precedes educational activities in the process of school evaluation” (Engin, 2020, p. 257). Academic achievement is significant to instruction, and its main goal is to improve instruction (Gronlund, 1998). Academic achievement is affected by parental involvement; however, there are other factors that negatively affect student achievement: educational facilities, insufficient teachers, large class sizes, and ineffective teaching strategies (Opoku-Assare & Siaw, 2016). Furthermore, gender differences, socioeconomic status, and student motivation are all factors that affect student achievement. Kraft, Marinell, and Yee (2016) established that school safety and academic expectations relate to student achievement in secondary students. In the study, Equality of Educational Opportunity, Coleman (1966) suggested that academic achievement was related more closely to children's family backgrounds than to the resources of the schools. Therefore, this study indicates that the type of parent a student has significantly affects student achievement in secondary students in a greater way than parental involvement (Yosai, 2016). Furthermore, Han et al. (2015) established that STEM affected student achievement in mathematics in high school students despite demographic background and performance level.

Academic Achievement and Gender Differences

Gender differences factor heavily in academic achievement, and the gender gap in academic achievement has become an issue (Hdii & Fagroud, 2018). There is a discrepancy in

research as which gender outperforms in certain subject areas. Barry (2018) argued that female students outperformed male students in math and science. On the other hand, Marcenaro–Gutierrez et al. (2018) and Hdii and Faground (2018) established that females scored higher in reading achievement; whereas, males scored higher in mathematics and science achievement. However, Hdii and Fagroud (2018) further argued that male students outperformed female students in math and science classes, and female students outperformed male students in literary subjects. Barry (2018) argued that female students outperformed male students in math and science; however, there was not a significant difference in achievement between male and female students. Marcenaro-Gutierrez et al. (2018) suggested that male students are prone to misbehave more than girls, and boys' academic achievement is sensitive to their family background (Marcenaro–Gutierrez et al., 2018).

Academic Achievement and Socioeconomic Status

A family socioeconomic status can possibly influence children's academic achievement (Bae & Wickrama, 2015). Socio-economic status (SES) is an individual's position in a hierarchy according to wealth, power, and social status (Gustafsson et al., 2018). The poverty and the lack of resources within families influences the academic achievement of students (Xuan et al., 2019). According to Chiu and Chow (2015), SES was related to students' reading achievement; furthermore, their study suggested that students of high socioeconomic status had higher reading scores than students of low socioeconomic status. Wolf and McCoy (2017) argued that socioeconomic status is directly and indirectly associated with academic achievement. According to Anindito et al. (2018), students with high socioeconomic status have higher mathematic scores than students with low socioeconomic status. Furthermore, Yulia (2018) suggested that there was a positive relationship between socioeconomic status and academic achievement in English.

Another meta-analytic review also suggested that there was a medium to strong correlation between academic achievement and socioeconomic status (Sirin, 2005).

Academic Achievement and Student Motivation

Academic achievement is affected by student motivation. As students become adolescents, the importance of academic motivation increases as it relates to academic achievement (Wehrspann et al., 2016). Students can be intrinsically or extrinsically motivated. Intrinsic motivation represents the pleasure and satisfaction of the experience, and extrinsic motivation represents the performance of activities for a reward (Ricard & Pelletier, 2016). Intrinsic motivation is an individual aspiration to become involved in new experiences, challenges, and learning opportunities because they are essentially rewarding. Nonetheless, extrinsic motivation is an individual aspiration to engage in tasks that are beneficial to the person (Wehrspann et al., 2016). Maslow's theory (1943) relates to students being motivated by their satisfied needs. According to Rogers et al. (2018), supportive parental involvement impacts academic achievement by improving the student's intrinsic motivation for learning. Intrinsic motivation is linked to academic success; however, extrinsic motivation is associated with lower grades and test scores. The environmental influences such as parental involvement, which is found within the ecological theory can enhance or lessen intrinsic and extrinsic motivation in the student (Wehrspann et al., 2016). Findings also revealed a positive association between academic socialization and intrinsic motivation, whereas there are few to no studies showing a relationship between academic socialization and extrinsic motivation. Gan and Bilige (2019) revealed that students who were rewarded or applauded by their parents, which is considered extrinsic motivation, were more likely to succeed in school. According to Gonzalez-DeHass et al. (2005), student motivation is an academic outcome of parental involvement. As the parents are involved,

the students are more likely to be more motivated to learn and are more focused on the learning process (Pavalache-Ilie & Tirdia, 2015). As students progress through school, they tend to lose their motivation. Pavalache-Ilie and Tirdia (2015) revealed an association between parental involvement and student's motivation in reading, writing, and math. However, the level of the association was not determined.

Parental Involvement

Parental involvement in children's learning has a powerful influence on children's academic achievement across all grade levels. However, socioeconomic status, parents' educational level, and schedule conflicts are key factors affecting parental involvement as it relates to the academic environment (Malone, 2017). Nonetheless, the level of parental involvement decreases by the time the students enter high school (Rogers et al., 2018). Although parental involvement tends to decrease as students progress from middle school to high school, all levels of education are important, and parental involvement affects the achievement and motivation of all students (Howard et al., 2019). Liou et al. (2019) examined the effects of motivation as it relates to parental involvement. The key findings revealed that parental involvement was a prominent indicator through a motivational mechanism. In addition, the child's motivation is dependent on parental involvement, which includes the parents' perceptions of the student's capabilities (Liou et al., 2019). An additional study indicated that school-based and home-based parental involvement are linked to positive outcomes for student motivation (Gonzalez-DeHass et al., 2005). On the other hand, a controlling parent can undermine a student and lead to a decrease in the motivation to learn (Rogers et al., 2018).

In the educational reform movement of 1995 (Shepard & Rose), a key element was to increase parental involvement in their students' academic lives. Costa and Faria (2017),

identified parenting as one of the main focuses of empirical research within education. It has been defined as “parents’ interactions with schools and with their children to promote academic success” (Bhargava & Witherspoon, 2015, p. 1703). It is a determinant of a child’s success and is related to academic performance and motivation as well. In addition, Costa and Faria (2017) suggested that parental involvement is related to academic success, especially in the first levels of schooling, and the parents recognized that “the greater the presence and involvement of parents in school the greater the percentage of success” (p. 32). Costa and Faria (2017) suggested that academic achievement is connected with the first levels of schooling, which occur within the ecological system theory through the child and his or her immediate environment (Bronfenbrenner, 1981). The child’s immediate environment will consist of the parent which further connects to the ecological theory and the hierarchy of needs to parents being involved in their student’s education, whether it is home-based parental involvement or school-based parental involvement (Bronfenbrenner, 1981; Maslow, 1943). Although parental involvement is important in the first levels of schooling, it is important that parents continue to be involved throughout the secondary level as well (Milstead et al., 2018). Milstead, et al. (2018) further recognized that students’ stages of development and students’ interest in peers could be a possible reason for the decline in parental involvement in the secondary level.

Gokturk and Dinckal (2018) mentioned that parental involvement holds numerous benefits of which increased academic success is considered one of the most beneficial characteristics of parental involvement. In a review of 75 studies, the literature revealed a relationship between parental involvement and academic success (Boonk et al., 2018). This study further revealed that parental involvement promoted academic growth as well as social and emotional growth.

Bhargava and Witherspoon (2015) identified three types of parental involvement: home-based, school-based, and academic socialization. According to Boonk et al. (2018), studies revealed that home-based parental involvement was associated with student achievement. On the other hand, some studies revealed that home-based parental involvement was not associated with changes in student achievement. Findings revealed that all three types of parental involvement are related to academic performance among middle and high school students. School-based parental involvement was not associated with academic achievement; furthermore, another study established that there was an insufficient impact between school-based parental involvement and academic achievement to arrive at a supportable conclusion (Boonk et al., 2018; Hussain et al., 2018). Although the association was established, it was not determined which type of parental involvement, home-based or school-based, was predictive of academic achievement (Boonk et al., 2018). Nonetheless, Hussain, Khurshid, and Amin (2018) indicated that there was a positive and sufficient evidence establishing the relationship between home-based parental involvement and academic achievement.

According to Chun and Devall (2019), academic socialization has been identified as one of the most effective types of parental involvement. Studies involving middle school students suggested that academic socialization has a positive relationship with parental involvement. Although types of parental involvement were established, Rogers et al. (2018) classified parental involvement as direct behaviors and emotional tone. Direct behaviors include supervision of homework, and emotional tone includes the interest in the children's learning (Rogers et al., 2018). Furthermore, parental involvement variables were identified that revealed the correlation between academic achievement and parental involvement. The most prominent variables that established the relationship between parental involvement and academic achievement are

parental aspirations and expectations, academic achievement value and home learning reinforcement, academic encourage and support, parent-child educational discussions, parental control, and school involvement. Parental expectations has been positively associated with as an influence in children's academic success (Cross et al., 2019). All of these variables, with the exception of parental control, have revealed a positive association with academic achievement. However, parental control had a negative association with academic achievement because of the excessive control over the child by the parent (Boonk et al., 2018). Garcia et al. (2017) established other variables associated with parental involvement and academic achievement: parent's education, occupation and social level, discipline, and learning structure. These variables revealed the positive association with academic achievement as well. According to Lv et al. (2016), parental engagement impacts academic achievement. Since parental involvement is a significant deciding factor of a student's academic success, it is important for a parent to take interest in a child's education as early as possible (Dudeja & Balda, 2019).

Parental roles in education have been deemed quite challenging (Costa & Faria, 2017). "Parental involvement includes any form of parental participation in or allocation of resources toward children's education meant to support children's educational progress" (Li et al., 2019, p. 140). Parents are a child's first teachers, and children learn much from their parents, a conclusion which is established in the ecological theory (Karnel, 2018). Therefore, it is the responsibility of the parents to educate their children as they transition into a formal setting, the school. After the children transition, the parents still have a significant role to play in the educational journey. "Parenting includes all of the activities that parent engage in to raise happy, healthy children who become capable students" (Durisic & Bunijevac, 2017, p. 140). Ripoll-Nunez and Carrillo (2016) further suggested that parental involvement is time invested in child- bearing activities along

with the level and quality of parental involvement. It was described as the amount of participation a parent have to put towards school and their child's life (Dudeja & Balda, 2019). They further indicated that a parent must communicate with the school and participate in school activities, decision making, as well as supporting learning at home. Parental involvement includes direct and indirect forms of involvement. Direct parental involvement includes direct contact at school and with school work. Indirect parental involvement includes parent's communication about and the demonstration of the importance of education (Wehrspann et al., 2016). Positive association with academic success was linked to two aspects of parental involvement: home-school partnership and parental interest in the students' academic activities (See & Gorard, 2015). According to Costa and Faria (2017), parental support fosters a child's growth and development. However, as students transition from primary level to secondary level, parental roles in the educational process seem to change. Secondary students are provided more autonomy by their parents. Parents act more so as a supervisor in home activities with home-based parental involvement, and they take on administrative duties with school-based parental involvement. Academic socialization further allows the parents to gives their students' autonomy by communicating academic expectations and academic aspirations (Bhargava & Witherspoon, 2015). Rogers et al. (2018) indicated that parental involvement tends to decline in secondary education due to school context and developmental changes in the adolescent. Also, as the children transition into high school, the curriculum becomes more complex and the parents' ability to stay involved in schoolwork is challenged. Furthermore, high school students have less desire for parents to participate in school activities as well as supervise their classwork (Rogers et al., 2018). Parental involvement is on the decline; however, the parent's role in education is necessary to have positive educational outcomes and student success (Costa & Faria, 2017).

Categories of Parental Involvement

According to Epstein (2004), there are various categories of parental involvement. These categories evolve into six types of parental involvement:

- Parenting
- Communicating
- Volunteering
- Learning at home
- Decision making
- Collaborating with the community.

Parenting includes family support and understanding child development, which occurs in the macrosystem construct within the ecological theory (Bronfenbrenner, 1981; Epstein, 2004). Parenting also includes helping parents with parental skills; these parenting skills will help them learn how to be involved in the lives of their children (Hussain et al., 2018). Hamlin (2017) indicated that parenting which included parental expectations and parenting style had great effects on academic achievement for primary and secondary levels. Furthermore, communicating includes communication between school and home, which is associated with the chronosystem construct by establishing the connection between the school and the home (Bronfenbrenner, 1981; Epstein, 2004). Communicating further includes establishing effective school-home communication, which can enhance parental involvement (Hussain et al., 2018).

Volunteering involves families that will volunteer by being supportive at school, and it further involves developing ways for parents to be involved in school-based activities (Hussain et al., 2018; Epstein, 2004). Nonetheless, learning at home involves students and academic learning with homework and other school-related tasks that can be completed at home, and it

further includes having the ability to facilitate learning at home (Hussain et al., 2018; Epstein, 2004). Hamlin (2017) further established that learning at home, which includes parent-child shared reading has a great effect on student outcomes in primary schools; however, parenting and learning at home have the strongest effect on academic achievement. Furthermore, decision making includes family participating in school decisions. Collaborating with the community involves coordinating services and resources for parents, students, and schools (Epstein, 2004).

Howard et al. (2019) identified three characteristics of parental involvement that have been prominent: participation in schools, communication between parents and schools, and home educational activities. These categories of parental involvement have established the correlation between parental involvement and academic achievement; however, some of the categories of parental involvement may also affect students' attitudes and behaviors. Along with Epstein's categories of parental involvement, Gokturk and Dinckal (2018) identified several models of parental involvement in their research: (1) the Cervone and O'Leary model, which including reporting progress, special events, parent education, and parent teaching; (2) the Williams and Chavkin model, which identified the parent acting as the audience, tutor, program supporter, co-learner, advocate, and decision maker; (3) the Hester model, which identified the parent as having various parental roles: communicators, teachers, supporters of activities, learners, and advocates; (4) the Greenwood and Hickman model, which included parental involvement behaviors such as volunteering, learning, decision making, acting as audience, and teaching the child; and (5) the Hill and Taylor model, which included volunteering, communicating, participating in academic activities and parent-teacher relationship, and inspiring children. Although these models are commendatory in the consideration of parental involvement, Epstein's six types of parental involvement have received some criticism; it has been said that

the model minimized some forms of parenting, lacked attentiveness to social and cultural factors, and treated forms of parental involvement the same for primary and secondary levels (Hamlin, 2017).

School-Based Parental Involvement

The categories of parental involvement, as well as the models of parental involvement, may be divided into school-based parental involvement and home-based parental involvement. School-based involvement and home-based involvement are considered predictors of academic achievements (Hurley et al., 2016). Furthermore, academic socialization was promoted as an additional type of parental involvement considered as a predictor of academic achievement (Bhargava & Witherspoon, 2015; Toren & Seginer, 2015; Wehrspann, et al., 2016).

School-based involvement includes communication between teachers and parents and parent participation in school activities (Gokturk & Dinckal, 2017; Li et al., 2019). Furthermore, school-based involvement includes school participation such as engagement with school personnel, conferences, and volunteer assignments (Bhargava & Witherspoon, 2015). School-based parental involvement is the engagement in activities aimed at boosting achievement of the individual student, but it does include activities such as fundraising that would be beneficial to the entire school. However, it is not clearly evident whether school-based parental involvement is an effective or ineffective way to boost student achievement (Park & Holloway, 2015).

According to Park et al. (2017), school-based parental involvement has three forms: public-good parental involvement, private-good parental involvement, and networking. Public-good parental involvement focuses on school improvement, and private-good parental involvement evolves around the parents. Networking would be the interconnectedness among the parents. Schools that had high levels of public-good parental involvement and networking were

likely to have students meeting or exceeding the state standards in reading and mathematics as well as having positive learning environments. Private-good parental involvement and networking had positive learning environments and higher achievement in schools of low socioeconomic stature (Park et al., 2017). In a latter study, Park and Holloway (2015) determined that private-good parental involvement was more strongly associated with academic achievement than public-good parental involvement. Private-good was negatively associated with reading achievement, but this idea changed over a period of time. Private-good and public-good were strongly associated with mathematics achievement. Networking was associated with mathematics achievement, but it was negatively associated with reading achievement (Parks & Holloway, 2015). Hurley et al. (2016) further divided school-based involvement into two sub-domains, which include communication with school personnel and school volunteerism. Also, children's self-regulated learning helped established the link school-based parental involvement and student achievement (Daniel et al., 2015). Nonetheless, Park and Holloway (2015) established a positive association between school-based parental involvement and students' academic achievement.

Home-Based Parental Involvement

Home-based parental involvement " is defined as parents' assistance and support of all kinds of informal learning and teaching practices related to school that take place at home" (Gan & Bilige, 2019, p. 2). Home-based parental involvement involves parents engaging in parent-child activities outside of the classroom (Hurley et al., 2016). Gokturk and Dinckal (2018) included educational activities, homework assistant, children exposure to stimulating activities, parental positive display about school and education, and involvement between the school and community as forms of home-based parental involvement. Howard et al. (2019) included

emotional and spiritual support and meeting a child's physical needs as characteristics of home-based parental involvement. These physical needs of home-based parental involvement are to be satisfied in Maslow's hierarchy of needs (Maslow, 1943).

Gan and Bilige (2019) established that there were four types of home-based parental involvement: supportive, basic, strict, and disengaged. With the supportive home-based parental involvement, parents check and supervise homework, provide emotional support, tutor and communicate frequently with the student. The basic home-based parental involvement has similar characteristic as supportive. With the strict home-based parental involvement, the parents check and supervise homework more often; however, these parents are less involved with emotional support and parent- child communication. With disengaged home-based parental involvement, the parents offer no emotional support, little parent-child communication, little supervision, and little parent-child communication.

Although Gan and Bilige (2019) acknowledged four types of home-based parental involvement, Huang and An (2018) proposed five dimensions of home-based parental involvement: setting rules, emotional support, parent-child interaction, conflict resolution strategies, and homework help. According to Li et al. (2019), home-based involvement includes help with homework, home supervision, and parent-child communication, which are considered activities beyond the classroom as well. Furthermore, Gan and Bilige (2019) included supporting learning environments as a characteristic of home-based parental involvement. It may be noted that parents' education attainment, income, and occupation influence the strength of home-based parental involvement (Gan & Bilige, 2019). Home-based parental involvement includes strategies to assist with intellectually engaging materials (Bhargava & Witherspoon, 2015). Wehrspann et al. (2016) further argued that home-based involvement may be beneficial intrinsic

motivation. Garcia, Hernandez, and Ruiz-Gallardo (2017) further established home-based parental involvement to be the students' access to informal educational resources while away from the school environment.

Although parental involvement plays a significant role throughout a student's entire educational process, "home-based involvement and parental educational expectations play an increasingly important role in secondary school" (Li et al., 2019, p. 139). After examining school-based and home-based parental involvement, the researcher will note that parents were more likely to be involved in home-based activities than school based activities (Hurley et al., 2017). However, according to Garcia, Hernandez, and Ruiz-Gallardo (2017), home-based parental involvement is not significantly related to academic achievement, but it does have an effect on academic achievement. Therefore, parental involvement must be strengthened in parental practices to have a greater effect on academic achievement. Malone (2017) felt that no matter the type of parental involvement, they all have an impact on academic achievement and student motivation. However, the type of parental involvement which is more effective was not determined.

Academic Socialization

Although school-based parental involvement and home-based parental involvement are most common, academic socialization has been mentioned as an additional type of parental involvement. Academic socialization refers to strategies for parental engagement. These strategies include the communication of the importance or usefulness of an education as a means of encouraging academic achievement and promoting a connection between school work and future goals and expectations from parents to children (Wehrspann et al., 2016). This type of parental involvement is considered an indirect form of a communication focused strategy

(Bhargava & Witherspoon, 2015). Academic socialization includes the communication of parental expectations and their value. Puccioni et al. (2019) explained that academic socialization include parents' beliefs, expectations, and behaviors which influence school- related outcomes. The messages communicated include the importance of good efforts, pressure to perform, and shame for not meeting standards or goals that have been set by the parent (Cross et al., 2019). Academic socialization links school work to current events, occupational aspirations, learning strategies, and future preparations. Findings revealed that academic socialization is more related to academic achievement than home-based parental involvement, but academic socialization and home-based parental involvement both promote a home learning environment (Toren & Seginer, 2015). Toren and Seginer (2015) further revealed that academic socialization was linked to children's reading over a period of time.

Barriers to Parental Involvement

There are several barriers to parental involvement: socioeconomic status, parents' educational level, schedule conflicts, and birth order (Cabus and Aries, 2017; Malone, 2017). Barriers can include parents' beliefs, parents' current life context, parents' economic class as well as parents' perceptions of invitation (Hornby & Blackwell, 2018). According to Hornby and Blackwell (2018), there are four types of barriers to parental involvement: parent and family factors, parent and teacher factors, child factors, and societal factors. The socioeconomic status and educational level would be a part of parent and family factors, and schedule conflicts would be a part of societal factors. Goss (2017), identified additional barriers to parental involvement such as family responsibilities and language barriers. Scheduling conflict was identified as a barrier within two studies (Goss, 2017; Hornby & Blackwell, 2018).

Although these are some common barriers that affect parental involvement within the schools, school levels may pose other barriers to parental involvement. High schools are larger and more complex, a situation that can create those other barriers to parental involvement (Hamlin, 2017). Furthermore, Costa and Faria (2017) identified five barriers to parents as well as family and school partnership:

- Societal factors which may affect school and the family (economic crisis)
- Parent-teacher factors (communication style)
- Individual parent (Parents' perceptions)
- Family factors (family structure)
- Child factors (gender, grade level)

Despite these barriers, parents still have to overcome personal barriers. For example, teachers are less likely to respond favorably to parents who do not share the same cultural background, lower income parents do not to have the same networks to draw from as middle-class parents, and wealthy parents of color may be excluded from certain parent networks and made to feel unwelcome in certain communities. Furthermore, poor communication between the parents and the school can deter parents from getting involved (Goss, 2017).

Socioeconomic Status. Parental involvement mediates between the family background and students' achievement (Thomas et al., 2019). Socioeconomic status is one of the most examined barriers as it relates to parental involvement. Socioeconomic status "refers to an individual's or a family's ranking on society's hierarchy with regard to access to valued commodities such as wealth, power, and/or social status" (Crede et al., 2015, p. 2). SES represents an individual's position and power within the economic and social hierarchy (Yang et al., 2016). According to Hauser (1994), the three main indicators of socioeconomic status is the

parent's education level, place of employment, and income. Aditomo et al. (2018) added possessions and place of residence as indicators of socioeconomic status. Socioeconomic status can be grouped into two categories: low socioeconomic status and high socioeconomic status.

Although parental involvement has been viewed as problematic within all social levels, Howard et al. (2019) identified the lack of parental involvement being more of a concern in urban schools, which represent the low socioeconomic status. In urban schools, there are limited resources and students have a lack of support in home-based parental involvement. Wang et al. (2016) indicated that low parental involvement often occurs in economically disadvantaged families. Hamlin (2017) indicated that many urban schools are located in an environment with high crime rates, unemployment, family dissolution, and population loss; these traits of urban schools help depict the levels of parental involvement that is likely to be present in the school. Nonetheless, parental involvement has become difficult to achieve because most families of low socioeconomic status must work long hours to meet financial obligation and lack confidence in participating in the students' educational process, and low-income families will more than likely continue to encounter persistent barriers (Hamlin, 2017; Howard et al., 2019). These factors influence students' learning and achievement. Low parental involvement is likely to occur in economically disadvantaged families (Wang et al., 2016). Therefore, low socioeconomic status is considered a challenge to parental involvement. Low socioeconomic status families experience poor socialization; they are not as knowledgeable to effectively support their children's learning. Also, they are sometimes less appreciative of education and would rather the student to find a secure income (Anindito et al., 2018).

According to Bhargava and Witherspoon (2015), students that have high socioeconomic status parents are more engaged in the educational process than students with low socioeconomic

status. Basically, the parents with a higher socioeconomic status are more likely have the ability to provide academic resources for their students, and the parents are more likely to have a better understanding of the educational process and a clear understanding of success in school. Also, they are more attentive to the students' learning progress and learning activities (Anindito et al., 2018; Bhargava & Witherspoon, 2015). On the other hand, children from high socioeconomic families believe there is not a need to study in school because there future is already secured (Anindito et al., 2018).

Park and Holloway (2015) further established that public-good school-based parental involvement appeared to have more of an effect on students from economically disadvantaged families. Also, networking school-based parental involvement were conditioned by the socioeconomic status of the parents. However, it appeared that public-good and networking was more effective with parents of high socioeconomic status than parents of low socioeconomic status. Parents of low socioeconomic status have less access to resources; however, they are able to create networks with organizations that will help support the school. On the other hand, parents of high socioeconomic status can advocate more for the children than parents of low socioeconomic status. Nonetheless, policies were created to assist families of low socioeconomic status that promoted parental involvement. The Every Student Succeeds Act (Howard et al., 2019) included provisions for raising achievement of low-income and disadvantaged families. Under ESSA, schools had to include all family members that influenced students and decision making, and schools would conduct outreach to all family members and parents. Also, schools had to create a parent advisory board which would consist of a group of parents or family members to represent the needs of the population served by the school district (Howard et al., 2019).

Parents' Educational Level. Parents' educational level has been identified as a barrier to parental involvement. Parents' education level is associated with their capabilities to foster children's adjustment (Yang et al., 2016). According to Durisic and Bunijevac (2017), parents who were unsuccessful in school lack the knowledge and confidence to assist their child throughout the educational process. Instead of their becoming involved in their child's education, they withdraw themselves or create excuses. In addition, because of a parent's lack of education, the parent can be intimidated by the curriculum and the language of the standards, a situation which further allows or even encourages a parent to avoid becoming a part of the student's education experience (Durisic & Bunijevac, 2017). Parents with the highest school track level expect their students to attain the highest school track level as well. The higher the parent's educational level, the better the academic achievement of the student. Parents who have attended college may have better subject mastery of content being taught in primary and secondary schools. Furthermore, parents with college degrees may have a more thorough knowledge of learning strategies to implement with their children, and they may be more confident in guiding their student's learning process (Anindito et al., 2018). Yang et al. (2016) established that highly educated parents form more realistic views regarding the performance of their children, and because they have higher expectations for children's educational outcomes, they create a more stimulating home environment experience. On the other hand, less educated parents are less likely to expect their students to attend the highest track level or to promote academic success (Malone, 2017; Crede et al., 2015). All in all, parental involvement is influence by the parents' educational level.

Schedule Conflicts. According to the United States Department of Labor (2017), 70.6% of mothers with minor children are a part of the daily work force; therefore, schedule conflicts

has been identified as a barrier to parental involvement as well, especially school-based involvement. According to Malone (2017), many parents want to participate in their child's educational process; however, their work schedules do not permit them to be a part of the process. Parents have inflexible work hours, or they must work two jobs, a condition that lowers minimal time to be involved in the school setting (Durisic & Bunijevac, 2017). So, parents are unable to be a participant in the education of their children. According to Alexander et al. (2017), parents' schedule conflicts are significantly related to a low grade point average. Although schedule conflicts are a concern, work-related factors may roll over into family life, a situation that will further affect a child's academic achievement. Basically, the work-to-family conflict reduces parental involvement, whether it is home-based or school-based, the result of which decreases academic performance (Holmes et al., 2018).

Birth Order of Children. The birth order of children seems to play a role in the students' educational journey. "Parents engage in different parenting strategies with children of different birth order" (Hotz & Pantano, 2015, p. 911). When children are born, they have the attention of the parents. As long as the child stands alone, the parent is more involved in the child's life. In Bronfenbrenner's ecological theory, the microsystem plays an important role in the child's development, and the parents are most important in this particular phase of the ecological theory. A child's development includes academic achievement; therefore, parents will affect academic achievement in the initial phase of the ecological theory (Bronfenbrenner, 1981). On the other hand, as more children are added to the family, each child will receive less attention. Basically, parental involvement converts to quantity over quality. According to Cabus & Aries (2017), first born students have preferential treatment. Although parents may attempt to spread their time evenly among their students, the first child, the only child for a while receives

the better investment of the parents. The parents spend less time when there are more children involved, and the older the child becomes, the less parental involvement he or she receives. Therefore, the first child as the initial only child will have the academic advantage (We et al., 2016). On the other hand, Hotz and Pantano (2015) indicated that birth order effect could occur in the opposite direction. After the first child, parents become more efficient and more experienced, a development that can lead to the latter children receiving more parental involvement than the first child.

Neighborhood Influences. Neighborhood influences seems to coincide with socioeconomic status. It has been suggested that parents' neighborhoods are shaped by parental involvement strategies: disadvantage, institutional resources, cohesion, and trust. The neighborhood in which the parents and the child reside can either inhibit or promote academic success within the student (Bhargava & Witherspoon, 2015). Neighborhoods of low socioeconomic status may have limited resources, a factor that may prevent parents from maintaining social and physical order, which is a reflection of the ecological theory via environmental influences. The parents' inability to maintain social and physical order can lead to stress. These neighborhoods may have greater crime and violence within the community. According to Li and Fisher (2017), parents residing in disadvantaged neighborhoods may have lower levels of contact with other adults as well as their children. This low contact weakens parents' ability to build social connections with other parents and leads to the lack of participation in school activities. Findings revealed that parents living in a cohesive neighborhood are more likely to participate in school-based involvement than parents living a less cohesive neighborhoods. Also, parents in the cohesive neighborhood may engage in more academic socialization (Bhargava & Witherspoon, 2015).

Benefits of Parental Involvement

After examining various studies, one finds numerous benefits to parental involvement whether it is home-based parental involvement or school-based parental involvement. Milstead et al. (2018) indicated that there are positive benefits as parents continue to be involved in the students' educational journey continually throughout the secondary level. One such benefit is having a greater chance of becoming a college graduate. Wong et al. (2018) indicated that parental involvement is quite beneficial to everyone. According to Malone (2017), parental involvement offers opportunities for a student's success in the learning environment. Furthermore, Ntekane (2018) indicated not only is parental involvement beneficial to the students, but it is also beneficial to the parents and teachers and school. However, literature revealed that neither parents nor teachers are satisfied with the depth of parental involvement within the school system (Gokturk & Dinckal, 2018). Hornby and Blackwell (2018) revealed that benefits of parental involvement included improved parent-teacher relationships and school attendance and behavior, teacher morale, school climate, and increased parent confidence and satisfaction. Although there are many benefits to parental involvement, Wong et al. (2018) argued that too much parental involvement may cause students not to perform at their best which demonstrate an adverse reaction as it relates to academic achievement and student motivation. There are many benefits of parental involvement; however, the effect of parental involvement as it relates to student achievement in a high school setting is limited.

Benefits to Students. For students, parental involvement is helpful in increasing students' morale, student achievement, and student motivation. The students are able to achieve higher grades and test scores and social skills. They also exhibit better behavior. When the parents are involved, the students demonstrate a higher level of motivation towards school.

These students are less likely to be a part of special education services and remedial classes (Ntekane, 2018). According to Gokturk and Dinckal (2018), the benefits of parental involvement for students include high attendance rate, greater educational aspirations, and psychological well-being. Both studies listed increased student achievement and boosted student morale as a benefit for the students (Gokturk & Dinckal, 2018; Ntekane, 2018). Overall, parental involvement is very beneficial to the student.

Benefits to Parents. For parents, parental involvement is significant because they are able to become more familiar with the curriculum, and they are able to benefit more from home-based parental involvement. It allows parents the opportunity to improve their perceptions of the school. Also, parents are able to increase their interaction with their child and are able to establish a more positive relationship with their children. Most of all, the parents are more aware of the activities that are going on within the school, thus resulting in a boost to parent's confidence (Ntekane, 2018). According to Gokturk and Dinckal (2018), an additional benefit of parental involvement for parents would be higher educational aspirations. Both pieces of literature recognized an improvement in communication as a benefit for parents in parental involvement (Gokturk & Dinckal, 2018; Ntekane, 2018). Overall, parental involvement is beneficial to parents.

Benefits to Teachers. Teachers are considered the second parents of the students; therefore, the students' academic performance can greatly affect the teacher (Karnel, 2018). In reference to students, the teachers' morale increases as well as teachers' attrition and teachers' parent-teacher relationship. When parents are involved in the educational process, teachers tend to gain a greater respect for their profession. If there is greater respect about the profession, the teacher could develop an increase in job satisfaction. Also, the parental involvement can help

with the improvement of communication between the parents and the teachers (Ntekane, 2018). According to Epstein and Becker (1982), some benefits of parental involvement for teachers would include greater retention skills, increase in positive behavior from students, and an increase in classroom materials from parents. Overall, parental involvement is beneficial to teachers.

Benefits to School. School is considered the microsystem level of the ecological theory. At this time, parenting behavior has a positive effect on students' learning (Costa & Faria, 2017). For the school, there will be community support and effective communication with parents. By the parents being involved within the school, the school would receive better support from the community. This result will allow the school to establish a positive reputation within the community as well. Also, the presence of parental involvement can help develop higher quality school programs (Ntekane, 2018). According to Gokturk and Dinckal (2018), an additional benefit of parental involvement for the school would be fewer disciplinary problems. Both studies acknowledged greater respect from the community and an improved reputation within the community as a school's benefit from parental involvement (Gokturk & Dinckal, 2018; Ntekane, 2018). Overall, parental involvement is beneficial to schools.

Perceptions of Parental Involvement

Teachers' Perceptions. Teachers believe that monitoring and supervising the child is important as it relates to parental involvement (Thomas et al., 2019). Teachers are expected to control student learning in the educational environment. They have the power and control over the student learning process. However, as parents become more involved in the parental involvement process, a power struggle may arise between the teacher and the parent, which can lead to conflict between them (Gokturk & Dinckal, 2018). According to Howard et al. (2019),

teachers assume that parents are not involved in a child's academic life when a student is academically struggling or the parents do not attend school functions. Furthermore, Gokturk and Dinckal (2018) indicated that teachers believe that effective parental involvement is ongoing communication between home and school, and teachers feel that parents should volunteer for events that they can relate to or are interested in within the school. Teachers are sometimes discontented with parental involvement in the school, and they feel that parents at times overstep their boundaries.

Parents' Perceptions. Parent are needed in the home-based parental involvement and school-based parental involvement to ensure student well-being and academic success (Gokturk & Dinckal, 2018). Primary and secondary school parents believe that parental involvement is necessary; however, they feel that there are home-school communication barriers as well as poor school support conditions that discourages parent participation within the school (Hamlin, 2017). Thomas et al. (2019) indicated that parents claim that they participated more in the educational process than teachers and students could verify. They further indicated that parents were interested in what happens at school and what the child learns at school; however, the parents did not have clear expectations. According to Sekarn et al. (2020), parents felt that there is an academic burden with their adolescents. It was further indicated that the increase of their child's use of media and mobile technology interferes with their interaction with their child via home-based parental involvement.

Students' Perceptions. Students need the support of their parents as a part of their educational journey; their perceptions of parental involvement have been found to be more influential on student's outcomes (Thomas et al., 2019). Bronfenbrenner's ecological theory further establishes the idea of students having the starring role in their own education and

development. According to Sekarn et al. (2020), students felt that there was little to no interaction with family members.

Parental Involvement and Academic Achievement

According to Hamlin (2017), parental involvement is the key to bridging the achievement gap. Parents are considered the essential factor in academic success; therefore, parental involvement is positively associated with academic achievement. Furthermore, parental involvement can encourage academic achievement by supporting the child's increased self-perception of cognitive competence and engaging with teacher and school to promote a teacher-student relationship. Also, a parent's investment of time and parenting style and expectations has a significant association with higher academic achievement (Howard et al., 2019). Studies have shown that parental involvement increases student achievement (Otani, 2019). According to Malone (2017), parental involvement in the educational process has greatly influenced academic achievement in students.

Furthermore, Malone (2017) believed that little to no parental involvement can negatively influence a student's academic success. Lara and Saracosti (2019) revealed that there are differences in academic achievement of children with different parental involvement profiles; children with low parental involvement have lower academic achievement than students with high parental involvement. However, the relationship was established at the primary level. Therefore, neither the achievement gap between students with low parental involvement and high parental involvement nor the type of parental involvement with a greater impact could be identified. Arens and Jude (2016), examined the relationship between parental involvement and academic achievement. Key findings revealed that there was a correlation between family activity and student achievement, but the impact of the correlation was not identified. Otani

(2019) revealed that there is an association between parental involvement and academic grades. Anindito et al. (2018) revealed a positive correlation between mathematics and parental involvement. However, at the student's higher education level the correlation between mathematics and parental involvement were not as strong. Howard et al. (2019) revealed that positive parent-child conversation about achievement as parental involvement can have a positive effect on academic achievement. Furthermore, Chung, et al. (2019) established that parental involvement was associated with academic outcomes. Parental involvement is a social resource that can affect the development of a student's academic success (Liou et al., 2019). Parental involvement is associated positive academic outcomes, and it has a definite impact on academic achievement (Arens & Jude, 2016; Lara & Saracosti, 2019; Otani, 2019).

Nevertheless, in both of the studies, the strength of the impact was not determined. Therefore, the strength of the impact of the parental involvement association remains unresolved. Another study revealed that parental involvement had very limited effect on students' achievement (Thomas et al., 2019). On the other hand, not all types of parental involvement are positively linked to academic achievement; parental support can be negatively associated with academic achievement (Thomas et al., 2019). All in all, the positive association of parental involvement and academic achievement outweighs the negative association of parental involvement and academic achievement.

Summary

A parent's role in a child's education can be quite challenging, but it is much needed. Parental involvement has been identified as an ongoing problem within education. Parents must be proactive via home-based parental involvement and school-based parental involvement. According to numerous studies, parental involvement is linked to academic achievement. Key

findings revealed that with parents being a part of the student's educational process, the student is likely to be motivated to be successful in the classroom and have an increase in academic achievement. Although there are barriers to parental involvement, there are many benefits to parental involvement for all stakeholders.

The problem was the effect that parental involvement will have on students throughout their educational journey. Nevertheless, gaps in the literature do exist. Therefore, the purpose of the study will be to identify the effect parental involvement has on the academic achievement of their secondary students and to identify which type of parental involvement is most effective. Numerous studies have been conducted in primary education and key findings have revealed that parental involvement has an impact on academic achievement; however, the most effective type of parental involvement has not been identified in the high school setting. Therefore, research is much needed in a high school setting to identify whether parental involvement will make a difference in the students' educational process and which of the two types of parental involvement, home-based or school-based, is more effective.

This study was necessary to show stakeholders the importance of parental involvement and its relationship to academic success. This study aimed to establish the effects of parental involvement as it relates to academic achievement, as well as the effectiveness of home-based parental involvement and school-based parental involvement and academic socialization in a high school setting. With a plethora of unanswered questions, this study was a much-needed addition to the empirical research currently available.

CHAPTER THREE: METHODS

Overview

This chapter will provide an overview of the research design, quantitative causal-comparative study, followed by the research questions and null hypothesis. The instruments that was used to conduct the study are the Family Partnership Scales survey and the Georgia Milestones assessment. The Family Partnership Scales was used to collect the data that provides the evidence for the effects of parental involvement. The Georgia Milestones archival data was used to determine students' academic achievement. The participants was chosen from a high school located in Georgia. Literature was provided from previous studies to provide the appropriateness of the study. The chapter concludes with the data analysis section. This section discussed the process of testing the difference between the two populations with the use of two *t* tests.

Design

The researcher utilized a quantitative, causal-comparative research design for this study. Gall (2007) defined causal-comparative research as a type of nonexperimental investigation. In causal-comparative designs, researchers seek to identify cause-and-effect relationships by forming groups of individuals in which the independent variable is present or absent—or present at several levels—and then determining whether the groups differ on the dependent variable. The purpose of the design is to seek to understand how the independent variable, parental involvement, which is "parents' interactions with schools and with their children to promote academic success" (Bhargava & Witherspoon, 2015, p. 1703), relates to the dependent variable, academic achievement of secondary students. Academic achievement is the knowledge and skills that determine the level of productivity measured through an assessment process (Sánchez et al.,

2019). According to guidelines developed by Gall et al. (2007), a causal comparative design is most appropriate to identify cause-and-effect relationships between variables and to test for significant differences, thus this design will identify the cause-and effect relationships between the independent variable, parental involvement and the dependent variable, academic achievement. Parental involvement was gathered via questionnaires, and academic achievement will be gathered via archival data. Furthermore, the effect of parental involvement at Central East Georgia High School was identified after examining the data. After the quantitative data were gathered, the more effective type, whether home-based parental involvement or school-based parental involvement, was identified through the questionnaires. All in all, the effect parental involvement has on the academic achievement of students was determined as well as which type of parental involvement had a greater effect on academic achievement. Two data collection approaches was used in this causal-comparative study. The first approach was in the form of a survey, Family-School Partnership Scales survey. The parents and students of Central East Georgia High School completed questionnaires. The second approach was a review of the Georgia Milestones state assessment scores of the students. The quantifiable data was gathered from the students of Central East Georgia High School.

Research Questions

RQ1: Is there a statistically significant difference in academic achievement as it relates to reading achievement scores between high school students with parental support and high school students without parental support?

RQ2: Is there a statistically significant difference in academic achievement as it relates to math achievement scores between high school students with parental support and high school students without parental support?

RQ3: Is there a statistically significant difference in academic achievement as it relates to reading achievement scores between students whose parents exhibit home-based parental involvement and students whose parents exhibit school-based parental involvement?

RQ4: Is there a statistically significant difference in academic achievement as it relates to math achievement scores between students whose parents exhibit home-based parental involvement and students whose parents exhibit school-based parental involvement?

Hypotheses

The null hypotheses for this study are:

$H_0$1: There is no statistically significant difference in academic achievement, as measured by Georgia Milestones as it relates to reading achievement scores, between high school students with parental support and high school students with little to no parental support, as measured by the Family-School Partnership Scales.

$H_0$2: There is no statistically significant difference in academic achievement, as measured by Georgia Milestones as it relates to math achievement scores, between high school students with parental support and high school students with little to no parental support, as measured by the Family-School Partnership Scales.

$H_0$3: There is no statistically significant difference in academic achievement, as measured by Georgia Milestones as it relates to reading achievement scores, between high school students whose parents exhibit home-based parental involvement and high school students whose parents exhibit school-based parental involvement, as measured by the Family-School Partnership Scales.

$H_0$4: There is no statistically significant difference in academic achievement, as measured by Georgia Milestones as it relates to math achievement scores, between high school

students whose parents exhibit home-based parental involvement and high school students whose parents exhibit school-based parental involvement, as measured by the Family-School Partnership Scales.

Participants and Setting

The participants of this study were drawn from a cluster sample, a sample that suits the purpose of a study and is convenient because each group will reflect the population as a whole (Gall et al., 2007). The target population in this study included high school students enrolled in Central East Georgia High School, located in Southeast Georgia, during the fall semester of the 2020-2021 school year. Central East Georgia High School enrolls approximately 1,076 ninth through 12^{th} graders, 59% African Americans, 21% Caucasians, and 10% Hispanics. It is a majority minority high school comprising of a 69% minority population where approximately 30% of the student body has been defined as economically disadvantaged. The schools' administrative team includes a principal, two assistant principals, an academic coach, and 80 teachers. The participants used in the study are those students and their parents.

In order to represent the entire population within the school, cluster sampling was used to select participants. The students were sorted and selected randomly in a spreadsheet from top to bottom until at least 200 student participants are chosen. Selection of classes through random cluster sampling ensured statistical requirements will be met after participant attrition due to drop outs, incomplete responses, or statistical outliers. Cluster sampling by classroom was the most efficient and practical method. Once the students were randomly selected, the administrative team provided them with a letter during school hours (see Appendix C). Furthermore, the administrative team retrieved selected parent participants' email addresses from Infinite Campus which is the school's student information system. A letter was sent by the

researcher via email to the parents of the selected students to notify them of their selection of participation in the study (see Appendix C for parent letter). The minimum number of participants required for the sample size will be 100 participants, which according to Gall et al. (2007) is the minimum sample size, assuming a medium effect size with a statistical power of .7 at the .05 alpha level. In order to meet the minimum sample size of 100 participants, an 85% response rate is needed.

The study added to the limited body of research that does exist by collecting data on the demographics of high school students in the survey. The groups were identified as students with parental involvement and students with little to no parental involvement. The total sample of 101 participants consisted of 51 males and 50 females. The ethnicity of the students will be 64.9% African American, 14.9% Caucasian, and 8.5% Hispanic. The group of students with parental involvement will consist of 30 males and 43 females. The ethnicity of the group will be 82% African American and 18% Caucasian. The group with students with little to no parental involvement will consist of 21 males and 7 females. The ethnicity of the group will be 94% African American and 6% Hispanic. The group of students whose parents exhibit home-based parental involvement will consist of 42 males and 46 females. The ethnicity of the group will be 89% African American and 11% Caucasian. The group of students whose parents exhibit school-based parental involvement will consist of 9 males and 4 females. The ethnicity of the group will be 9% African American and 8% Caucasian.

Instrumentation

The instrument that was used in this study is the parent and student Family-School Partnership Scales survey. The Georgia Milestones Standardized Assessment archival data was reviewed to further conduct the study. The assessment consisted of a reading score and a math

score. According to the Harvard Family Research Project: Data Collection Instruments for Evaluating Family Involvement and the Family-School Partnership Lab, a researcher has permission to use the Family-School Partnership Scales survey as long as it is properly cited (see Appendix F for permission to use instrument). The Director of Research and Accountability of the Central East Georgia, has provided the researcher permission to access Georgia Milestones data, as well as to conduct the study within the school (See Appendix A for permission to use the assessment). The instruments used for this study measured students' academic performance based on the Georgia Milestones, and parents' and students' perception of parental involvement as measured by the Family-School Partnership Scales Survey. The survey also measured the effectiveness of home-based parental involvement and school-based parental involvement to determine which had the greater effect upon student achievement. Several researchers have used this instrument in their studies, including Hoover-Dempsey and Sandler (2005) and Osnat (2011). The Georgia Milestones Standardized Assessment was used as archival data to assess the achievement of the related student participants.

Family-School Partnership Scale

In order to measure parental involvement, the Family-School Partnership Scales was used (see Appendix E). This instrument was created to develop valid and reliable measures for assessing constructs included in Hoover-Dempsey and Sandler's theoretical model of the parental involvement process and to test the hypotheses about the causes and consequences of parental involvement in students' education. As a way to enhance achievement, a three-year study was conducted by Hoover-Dempsey and Sandler from 2001-2004. The Family-School Partnership Scales measures three levels of parental involvement:

- Level 1 – parent-reported personal motivators for involvement, perceptions of invitations to be involved, and perceived life context.
- Level 2 – parent-reported types of involvement (home-based and school-based) as well as report of mechanisms to be involved (also includes student outcomes).
- Level 3 – student perceptions of parent involvement.

The instrument was used in numerous studies (Ice & Hoover-Dempsey, 2010; Strickland, 2015; Whitaker & Hoover-Dempsey, 2013). The parent questionnaire has 116 questions. The scales include Parent Sense of Efficacy, Parents' Perception of General School Invitations for Involvement, Parents' Sense of Valence, Parents' Self-reported Role Beliefs, Parents' Perception of Specific Child Invitations for Involvement, Parents' Perception of Specific School Invitations for Involvement, Parents' Time and Energy for Involvement Activities, Parents' Knowledge and Skills for Involvement Activities, Parents Level of Involvement-DV, Parent Self-Reported use of Parents' Modeling, Parent Self-Reported use of Encouragement, Parent Self-Reported use of Reinforcement, and Parent Self-Reported Use of Instruction. It uses a six-point response format ranging from 1 (Disagree very strongly/Never), 2 (Disagree/1 or 2 times), 3 (Disagree just a little/4 or 5 times), 4 (Agree just a little/Once a week), 5 (Agree/Few times a week), and 6 (Agree very strongly/Daily). The combined possible scores on the parent questionnaire range from 116 to 696 points. A score of 116 points is the lowest possible score indicating minimum parental involvement in the student's learning process, and a score of 696 points indicates the maximum parental involvement.

The student questionnaire had 49 items. The scales included Student Self-Report of: Social Self-Efficacy for Relating to Teachers, Student Perceptions of Parents' Implicit Behavior, Students Perception of Parents' Explicit Behavior, and Student Self-Report of: Active

Engagement. It uses a four-point response format ranging from 1 (Not true), 2 (Slightly true), 3 (Moderately true), and 4 (Significantly true). The combined possible score on the student questionnaire range from 49 to 196. A score of 49 points is the lowest possible score, meaning that students have the most negative perception of their parent's educational involvement; and a score of 196 points means that students have the most positive perception of their parent's educational involvement. If any questions from either survey are unanswered, the instrument will be discarded. Students and parents were given six weeks to complete and return the survey. The instrument was provided by Hoover-Dempsey and Sandler, and it was evaluated by a five-person panel that included Kathleen Hoover-Dempsey and Howard Sandler. All measures underwent face and content validity evaluations by the panel which had expert knowledge of the constructs being evaluated. The experts were presented with the scales and a description of the constructs, and asked to evaluate how well the scale assessing the constructs matched the construct definitions. Satisfactory face and content validity were attained for all scales (Hoover-Dempsey & Sandler, 2005). For the parent survey, the Cronbach alpha internal consistency reliability score ranged from 0.66 to 0.86. For the student survey, the Cronbach alpha internal consistency reliability score ranged from 0.70 to 0.96. For both surveys, the higher scores indicated more frequent use of or more agreement with standings on the construct. The face and content validity were at generally accepted values for this type of research. The Family-School Partnership Scale is valid and satisfactorily reliable (Hoover-Dempsey & Sandler, 2005).

Georgia Milestones Standardized Assessment

The Georgia Milestones was designed and developed by the state of Georgia. The purpose of the Georgia Milestones Standardized Assessment is to "provide a valid measure of student achievement of the state content standards across the full achievement continuum"

(Georgia Department of Education, 2014, p. 2011). The Georgia Milestones assessments are mandated by state law and are designed to measure how well students acquire the skills and knowledge described in the state's mandated rigorous content standards in English language arts, mathematics, science and social studies in grades three through eight and in selected high school courses. It also identifies areas of improvement for students, informing various stakeholders of the progress toward meeting academic achievement standards of the state, meeting the requirements of federal accountability, and gauging the overall quality of education in the state of Georgia. The tests are administered by educators throughout the state of Georgia during the spring. It is administered online unless the student has a disability. If the student has a disability; administration of the test is determined by the IEP team. Each section of the test takes approximately 70 minutes. The tests are scored by the Office of Assessment and Accountability at the Georgia Department of Education. The combined possible score on the Georgia Milestone range from 0 to 525. The value of 0 is assigned to the lowest obtainable scale score (LOSS), which differs by course. The value of 68 is assigned to the scale score cut for *Developing Learner*, which is 475. The value of 80 is assigned to the scale score cut for *Proficient Learner*, which is 525. The value of 92 is assigned to the scale score cut for *Distinguished Learner,* which differs by course. The Georgia Milestones Test Blueprints, Content Weight documents, and the inclusion of Georgia educators established the validity as a measure of the state's content standards. The Cronbach alpha internal consistency reliability score ranged from 0.89 to 0.93. The reliabilities for the Georgia Milestones assessment are consistent across forms and administration which suggest that these tests are reliable for their intended purpose. The assessments will be used to measure academic achievement as it relates to high school students. See Appendix A for permission to use the instrument.

Procedures

The researcher secured approval from Liberty University's IRB through submission of an application and proposal prior to the study taking place at the end of June 2021 (see Appendix B for letter). Written permission to conduct the study was obtained from the superintendent and principal. Upon approval, cluster sampling was used to randomly select students to participate in the study. Students were sorted and selected randomly in a spreadsheet from top to bottom until at least 200 student participants are chosen. Once the students were chosen, students were provided a letter in-person, and the parents were notified of the selection via email (see Appendix C for letter). To safeguard participants, letters of assent were sent to the children's parents to obtain written consent for participation (Brown et al., 2017). The purpose of the study was explained within the letter so that everyone is fully aware of the process. Parents contacted the researcher via email to confirm their participation in the study. Participants were given a week to return consent and assent forms. Parents sent their parental consent form by their student which will be given to the administrative team (see Appendix E for parental consent form). Students returned their assent form to the administrative team (see Appendix D for assent form).

The study was conducted over a one–month span. Prior to the testing date, the Family-School Partnership Scale survey was uploaded as a link for all participants. In order to link parents' responses to their students' achievement scores, the child's name was recorded on the survey. On the survey, parents were reminded that all information will remain confidential. The survey was completed in three sessions. The student participants completed their survey the first two weeks within the testing window. The parents, which are a facet of their students' participation, completed their survey during the same testing window. The third session was a make-up session, which occurred the second two weeks of the testing window. In order to have

successful participation, the survey link was be sent by email to each participant. All student participants were assigned a computer number and an access code. Participants were provided instructions on how to complete the Family-School Partnership survey and had 60 minutes to complete the instrument. To safeguard fidelity, the researcher followed a script and provided directions for the student participants to come in quietly and sit at their assigned computer. Once the participants finished the survey, they submitted their responses and remained quiet until they were dismissed. After the responses were submitted, the data were automatically generated in Survey Monkey and analyzed using SPSS. After IRB approval, a letter was sent to the superintendent and principal, requesting access to the Georgia Milestones Standardized test of all student participants. Georgia Milestones test scores were gathered in the final two weeks of the testing window.

Data Analysis

In this study, two *t* tests were used to test the difference between the two population means. Questionnaire data were populated in Survey Monkey. The survey data were analyzed using SPSS by ranking the scaled responses. The reading and math academic achievement scores were analyzed using SPSS which determined if there was a significant difference in the gain scores of the two populations. According to Gall et al. (2007), a *t* test determines the significant difference between two groups; therefore, this method is appropriate for understanding differences in academic achievement between students with and without parental support and which type of parental involvement has a greater effect on academic achievement. The two *t* tests tested for significant differences in achievement of students with parental support and students with little to no parental support.

Data Screening and Assumption Testing

Data set was inspected for missing and inaccurate entries. Box-and-whisker plots were used to detect extreme outliers. A *t* test requires that data meet several assumptions to continue with analysis, including the assumptions of the absence of extreme outliers, normality, and equal variance. A Kolmogorov-Smirnov test was used to verify assumption of normality and Levene's Test of Equality of Error Variance was used to verify assumption of equal variance. SPSS generated Levene's Test of Equality of Error Variance as part of the output. A box and whisker plot was used for each group to identify extreme outliers and was displayed in a single graph. All assumption tests and analyses conducted as referenced above used an alpha of .05 to test for significance.

Hypothesis Testing

The descriptive statistics of mean and standard deviation was reported. Since two *t* tests were conducted, a Bonferroni correction was needed to guard against type I error. The alpha level was calculated to be: 0.05/2= .025, rounded to .03 (Warner, 2013). Each null hypothesis was rejected at $p < .03$. The effect size was determined using Cohen's *d*.

CHAPTER FOUR: FINDINGS

Overview

This chapter will begin with a restatement of the research questions identifying statistical possibility of a significant difference in academic achievement (reading and math) between students with parental support and students with little to no parental support and a significant difference in academic achievement (reading and math) between students whose parents exhibit home-based parental involvement and students whose parents exhibit school-based parental involvement. Following the research questions is the restatement of the null hypotheses nullifying the significant difference in academic achievement (reading and math) between students with and with little to no parental and the significant difference in achievement of students of home-based parental support and school-based parental support. Before conducting the statistical testing, the chapter discusses the results of the assumption tests. A brief paragraph explaining the descriptive statistics of the population used to conduct this study analysis and tables for the sample are outlined in this chapter. In the results section of this chapter, the researcher organized the information by hypothesis. The statistical test used to measure both hypotheses were two *t* tests. The chapter concludes with a statement that reflect a determination of whether the statistical testing show significant findings that rejects or fails to reject the null hypotheses.

Research Questions

RQ1: Is there a statistically significant difference in academic achievement as it relates to reading achievement scores between high school students with parental support and high school students without parental support?

RQ2: Is there a statistically significant difference in academic achievement as it relates to

math achievement scores between high school students with parental support and high school students without parental support?

RQ3: Is there a statistically significant difference in academic achievement as it relates to reading achievement scores between students whose parents exhibit home-based parental involvement and students whose parents exhibit school-based parental involvement?

RQ4: Is there a statistically significant difference in academic achievement as it relates to math achievement scores between students whose parents exhibit home-based parental involvement and students whose parents exhibit school-based parental involvement?

Null Hypotheses

$H_0$1: There is no statistically significant difference in academic achievement, as measured by Georgia Milestones as it relates to reading achievement scores, between high school students with parental support and high school students with little to no parental support, as measured by the Family-School Partnership Scales.

$H_0$2: There is no statistically significant difference in academic achievement, as measured by Georgia Milestones as it relates to math achievement scores, between high school students with parental support and high school students with little to no parental support, as measured by the Family-School Partnership Scales.

$H_0$3: There is no statistically significant difference in academic achievement, as measured by Georgia Milestones as it relates to reading achievement scores, between high school students whose parents exhibit home-based parental involvement and high school students whose parents exhibit school-based parental involvement, as measured by the Family-School Partnership Scales.

H_04: There is no statistically significant difference in academic achievement, as measured by Georgia Milestones as it relates to math achievement scores, between high school students whose parents exhibit home-based parental involvement and high school students whose parents exhibit school-based parental involvement, as measured by the Family-School Partnership Scales.

Descriptive Statistics

Parents (n = 101) and their children (n = 101) took the appropriate survey. Seven students left substantial portions of the survey questions unanswered. Therefore, they were deleted from the student dataset, which left 94 students. Relative to gender, they were equally distributed among males (50%, n = 47) and females (50%, n = 47). However, 77.7% (n = 73) of students had parental support whereas 22.3% (n = 21) did not.

Gender and parental support are summarized in Table 1.

Table 1

Student Gender and Parental Support

Variable	Description	*n*	*%*
Gender	Female	47	50.0
	Male	47	50.0
	Total	94	100.0
Parental Support	No	21	22.3
	Yes	73	77.7
	Total	94	100.0

Regarding race/ethnicity, 64.9% (n = 61) of students were Black/African Americans, 14.9% (n = 14) were white/Caucasians, which comprised 80% of the sample. Hispanics (8.5%, n = 8) were the third largest ethnic group. Race is presented in Table 2.

Table 2

Race/Ethnicity

Race/Ethnicity	*n*	*%*
African American	61	64.9
African American/Caucasian	4	4.3
African American/Caucasian/Asian	1	1.1
African American/Hispanic	2	2.1
American	1	1.1
Asian	1	1.1
Caucasian	14	14.9
Hispanic	4	4.3
Hispanic/Honduran	1	1.1
Irish American	1	1.1
Mixed	3	3.2
White/Hispanic	1	1.1
Total	94	100.0

Although there were three statistical outliers observed during data screening, the analyses proceeded as planned without removing the outliers because the researcher assumes that the outliers were not due to any data entry errors and accurately reflected students' scores. Moreover, the distributions were determined to be normal. Group means for academic achievement scores by parental support are presented in Table 3.

Table 3

Group Means of Academic Achievement by Parental Support

	Parental Support	*n*	*M*	*SD*	Std. Error Mean
Math	No	73	511.90	58.28	6.82
	Yes	73	512.78	34.64	4.05
Reading	No	73	498.90	41.30	4.83
	Yes	73	516.55	37.38	4.37

Note. Cases were weighted.

Although there was one statistical outlier observed during data screening, the analyses proceeded as planned without removing the outlier because the researcher assumes that the outlier was not due to any data entry errors and accurately reflected students' scores. Group means for academic achievement scores by primary type of parent educational involvement are presented in Table 4.

Table 4

Group Means of Academic Achievement by Type of Educational Involvement

	Type of Educational Involvement	*n*	*M*	*SD*	Std. Error Mean
Math	Home-Based Involvement	88	510.09	42.07	4.48
	School-Based Involvement	88	523.44	36.00	3.84
Reading	Home-Based Involvement	88	509.36	41.78	4.45
	School-Based Involvement	88	511.22	40.82	4.35

Note. Cases were weighted.

Scores were computed for home-based parental involvement and school-based parental involvement by computing the mean responses for the items on each construct. After scores were computed, they were grouped into categories corresponding to the Likert scale categories to facilitate ease of interpretation. See Table 5 for details.

Table 5

Coding of Variables

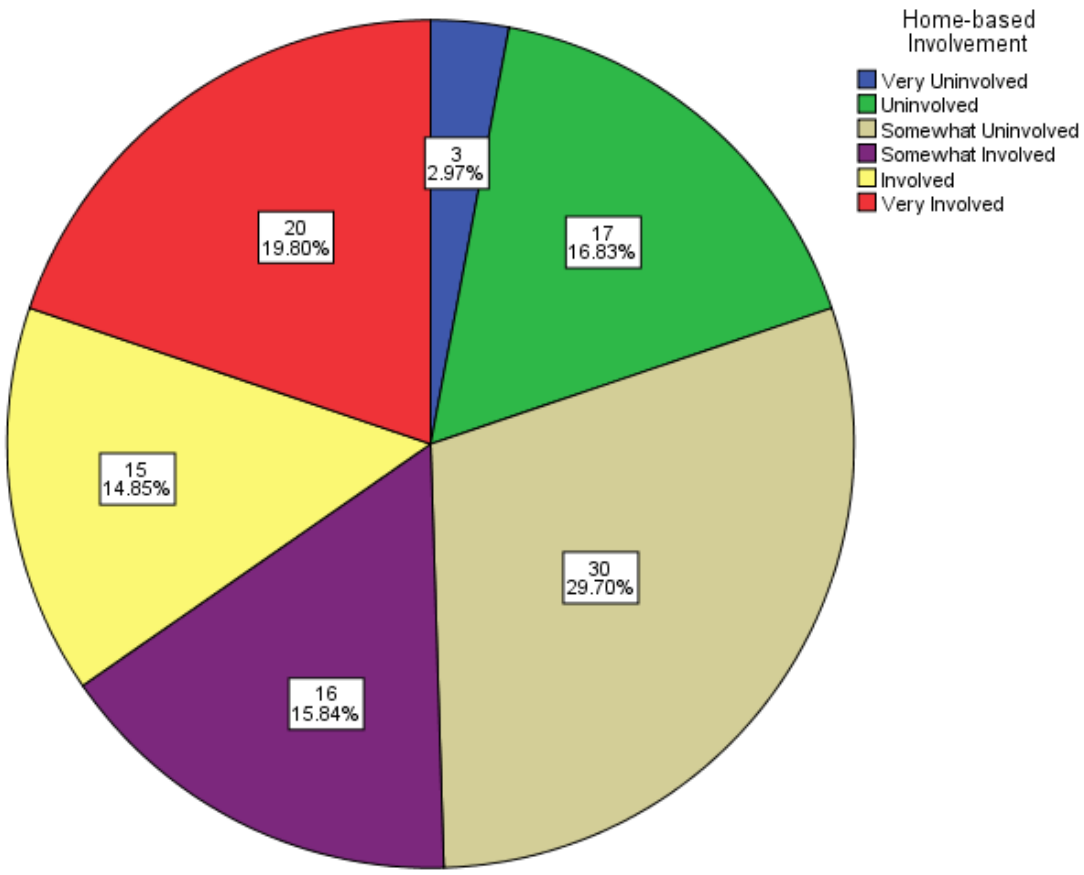
Range	Assigned Value	Description	New Description
0-1.4	1	Strongly Disagree	Very Uninvolved
1.5-2.4	2	Disagree	Uninvolved
2.5-3.4	3	Somewhat Disagree	Somewhat Uninvolved
3.5-4.4	4	Somewhat Agree	Somewhat Involved
4.5-5.4	5	Agree	Involved

5.5-6.00	6	Strongly Agree	Very Involved

Relative to home-based school involvement, 3.0% (*n* = 3) of high school parents were classified as being very uninvolved, 16.8% (*n* = 17) were classified as being uninvolved, 29.7% (*n* = 30) were somewhat uninvolved, 15.8% (*n* = 16) were somewhat involved, 14.9% (*n* = 15) were involved and 19.8% (*n* = 20) were very involved. This is illustrated in Figure 1.

Figure 1

Parent Home-based Involvement from Parent Perspective



Home-based parental involvement from the parent perspective is summarized in Table 6.

Table 6

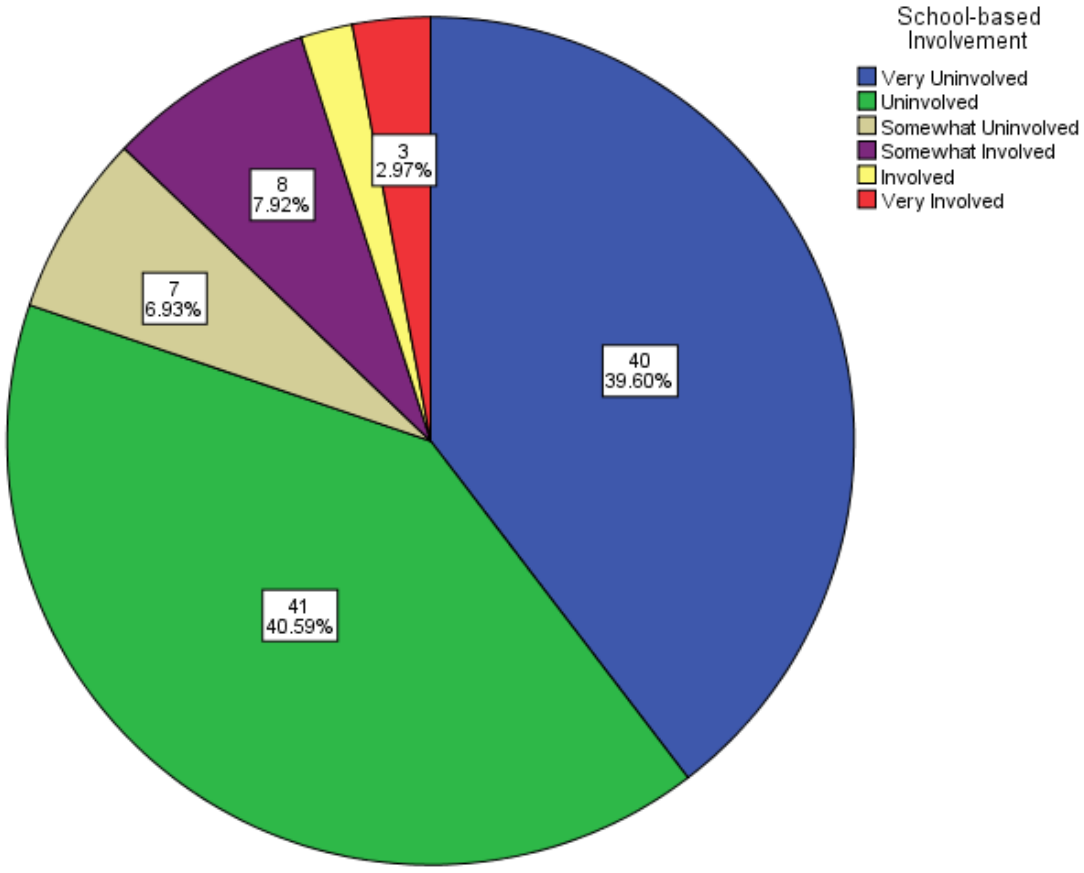
Home-based Parental Involvement from Parent Perspective

Home-based Parental Involvement	*n*	*%*
Very Uninvolved	3	3.0
Uninvolved	17	16.8
Somewhat Uninvolved	30	29.7
Somewhat Involved	16	15.8
Involved	15	14.9
Very Involved	20	19.8
Total	101	100.0

Regarding to school-based parent involvement, 39.6% (*n* = 40) of high school parents were classified as being very uninvolved, 40.6% (*n* = 41) were classified as being uninvolved, 6.9% (*n* = 7) were somewhat uninvolved, 7.9% (*n* = 8) were somewhat involved, 2.0% (*n* = 2) were involved and 3% (*n* = 3) were very involved. This is illustrated in Figure 2.

Figure 2

Parent School-based Involvement from Parent Perspective



School-based parental involvement from the parent perspective is summarized in Table 7

Table 7

School-based Parental Involvement from Parent Perspective

School-based Parental Involvement	*n*	*%*
Very Uninvolved	40	39.6
Uninvolved	41	40.6
Somewhat Uninvolved	7	6.9
Somewhat Involved	8	7.9
Involved	2	2.0
Very Involved	3	3.0
Total	101	100.0

Scores were computed for the Parent Report of Home-based Activities Scale. Scores were also computed for the Parent Report of School-based Activities Scale. A new variable was created, primary type of educational involvement, and participants were grouped into their corresponding category (home-based involvement vs. school-based involvement) based on their highest score for each scale. Thus, 88 cases (87.1%) were classified as home-based involvement, 9 cases (8.9%) were classified as having school-based involvement, and 4 cases (4.0%) were classified as undifferentiated and missing because they were tied in their primary type of educational involvement. Primary type of educational involvement is presented in Table 8.

Table 8

Primary Type of Parent Educational Involvement

Type of Parent Involvement	*n*	*%*	Valid %
Home-Based Involvement	88	87.1	90.7
School-Based Involvement	9	8.9	9.3
Total	97	96.0	100.0
Undifferentiated	4	4.0	
Total	101	100.0	

Math achievement scores ranged from 400.00 to 616.00 (M = 512.48, SD = 42.00). Reading achievement scores ranged from 410.00 to 619.00 (M = 510.13, SD = 41.29). Descriptive statistics are summarized in Table 9.

Table 9

Descriptive Statistics

Variable	*n*	*Minimum*	*Maximum*	*M*	*SD*
Math Score	94	400.00	616.00	512.59	41.05
Reading Score	94	410.00	619.00	512.61	38.94

Results

Null Hypothesis One

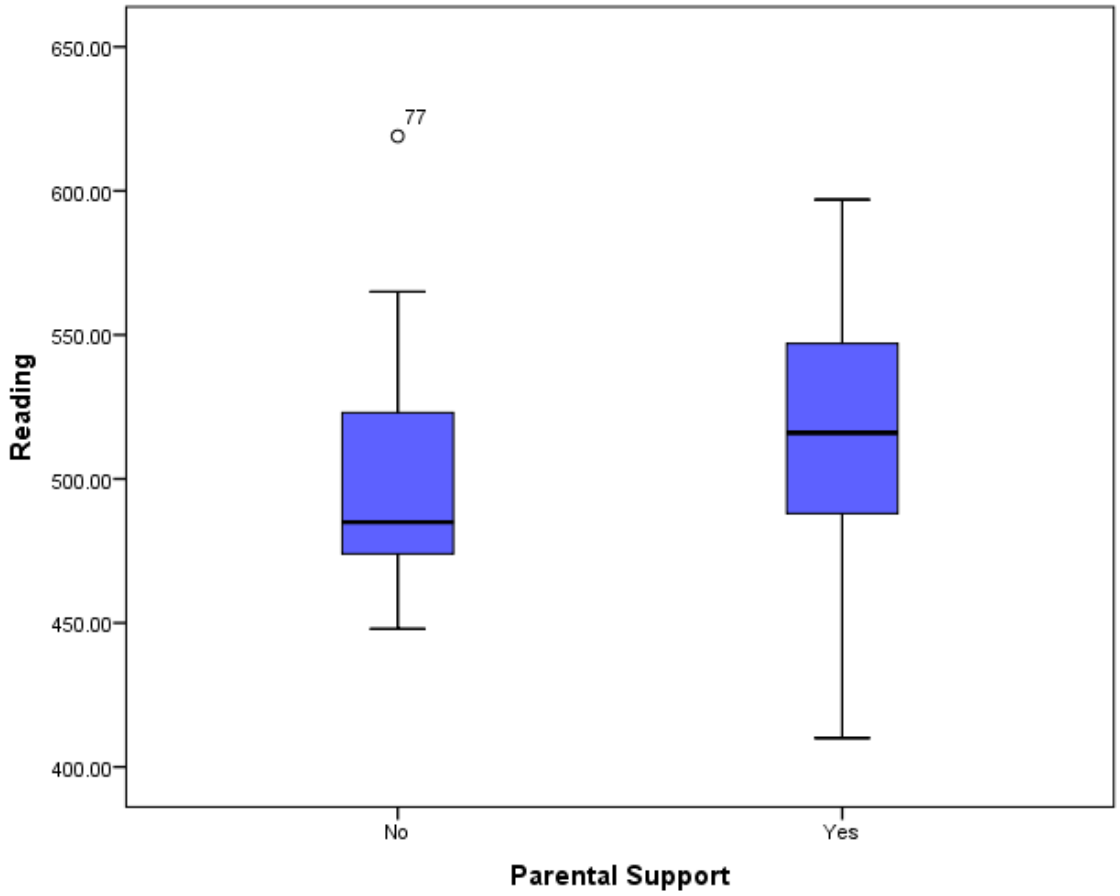
$H_0$1: There is no statistically significant difference in academic achievement, as measured by Georgia Milestones as it relates to reading achievement scores, between high school students with parental support and high school students with little to no parental support, as measured by the Family-School Partnership Scales.

Data Screening

Relative to reading achievement scores, the interquartile range (IQR) = 50.00 for students who did not have parental support. The median = 485.00. There was one extreme outlier (≥ 619). The IQR = 59.50 for students who had parental support. The analyses proceeded as planned without removing the outliers because the researcher assumes that the outliers were not due to any data entry errors and accurately reflected students' score. The median = 516.00. The box and whisker plot of reading scores by parental support is presented in Figure 3.

Figure 3

Box and Whisker Plot of Reading Scores by Parental Support



Assumptions Testing

Since there were achievement scores in reading, *t* test were conducted for the hypothesis. Prior to the hypothesis testing, the assumptions of the independent *t* test were tested. The independent variable was parental support with two levels (yes versus no). The dependent variables were reading achievement scores. The normality of the data was tested with the Kolmogorov-Smirnov Test. If the significance level is less than .05, the normality assumption has been violated. The significance level is greater than .05 for all subgroups of participants relative to reading scores. Therefore, the assumption of normality was met. The *p* value for students with little to no parental involvement was .098, and the *p* value for students with parental involvement was .200. This is presented in Table 10.

Table 10

Kolmogorov-Smirnov Test Results for Reading Academic Achievement by Parental Support

		Kolmogorov-Smirnov		
	Parental Support	Statistic	*Df*	*p*
Reading	No	.174	21	.098
	Yes	.077	73	.200

Note. Cases were weighted.

For the Levene's test, as it relates to reading scores, was not statistically significant, $p = .546$. The assumption was met. This is presented in Table 11.

Table 11

Levene's Test for Equality Variances for Reading Academic Achievement by Parental Support

		F	*p*	*t*	*df*	*p*	Mean Difference
Reading	Equal variances assumed	0.37	.546	-2.71	144	.008	-17.64
	Equal variances not assumed			-2.71	142.70	.008	-17.64

Note. Cases were weighted.

Results

There was a significant difference in academic achievement between high school students with parental support ($M = 516.55$, $SD = 41.30$) and high school students without parental support ($M = 498.90$, $SD = 41.30$) relative to reading scores, $t(144) = -2.71$, $p = .008$, two-tailed. Therefore, the null hypothesis ($H_0 1$) was rejected. On the average, students with parental support scored 17.64 points higher in reading achievement than students who did not have parental support. Cohen's d = 0.45 indicates a medium effect size. *t*-Test results for academic achievement by parental support are presented in Table 12.

Table 12

t-Test Results for Reading Academic Achievement by Parental Support

	Levene's Test for Equality of Error Variance	*F*	*p*	*t*	*df*	*p*	Mean Difference
Reading	Equal variances assumed	0.37	.546	-2.71	144	.008	-17.64
	Equal variances not assumed			-2.71	142.70	.008	-17.64

Note. Cases were weighted.

Null Hypothesis Two

$H_0$2: There is no statistically significant difference in academic achievement, as measured by Georgia Milestones as it relates to math achievement scores, between high school students with parental support and high school students with little to no parental support, as measured by the Family-School Partnership Scales.

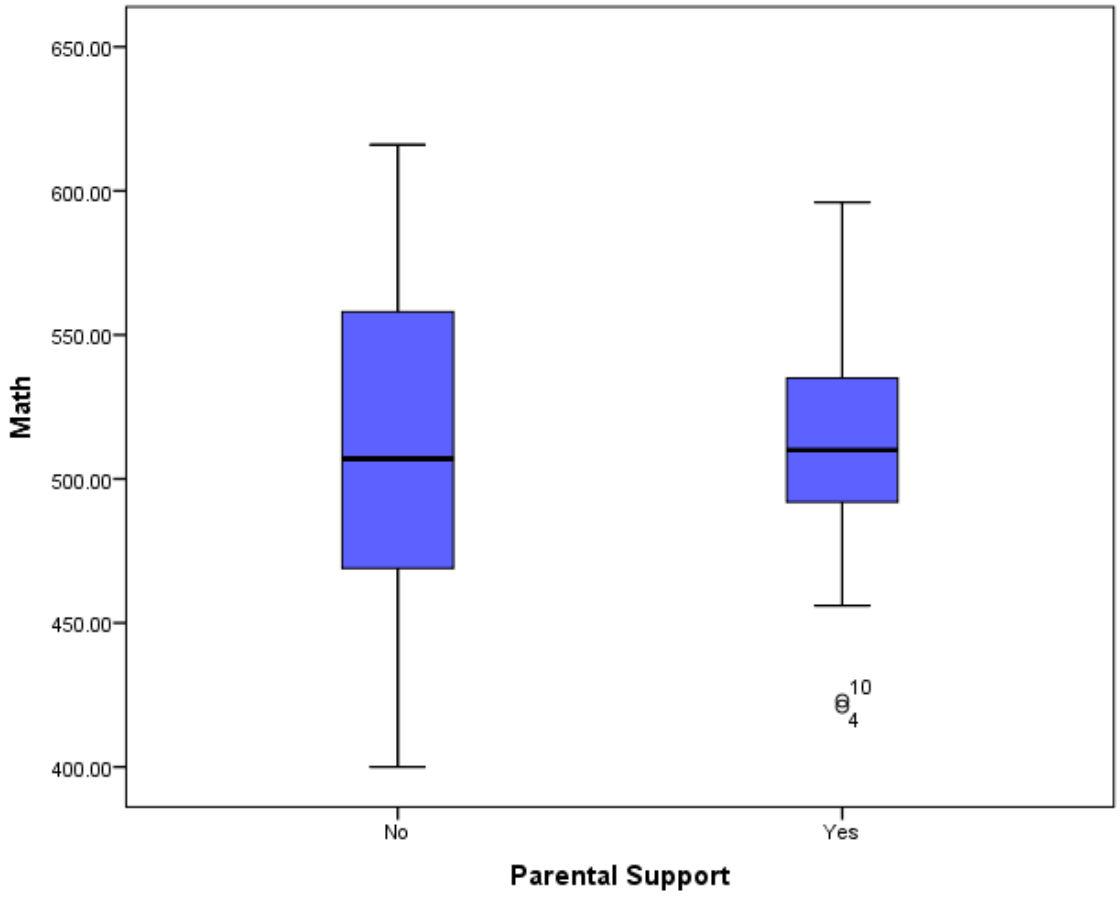
Data Screening

The distributions were examined for extreme outliers with box and whisker plots. Outliers are indicated when they fall above or below the whiskers. They are determined mathematically when then fall above or below 1.5 times the interquartile range (IQR). Relative to math achievement scores, the IQR = 89.50 for students who did not have parental support. The median = 507.00. There were no extreme outliers. The IQR = 45.00 for students who had parental support. The median = 510.00. There were two extreme outliers (≤ 423). The box and whisker plot of math scores by parental support is presented in Figure 5. The analyses proceeded as planned without removing the outliers because the researcher assumes that the outliers were

not due to any data entry errors and accurately reflected students' scores. Moreover, the distributions were determined to be normal.

Figure 4

Box and Whisker Plot of Math Scores by Parental Support



Assumptions Testing

Since there were achievement scores in math, *t* tests were conducted for the hypothesis. Prior to the hypothesis testing, the assumptions of the independent *t*-test were tested. The independent variable was parental support with two levels (yes versus no). The dependent variables were math achievement scores. The normality of the data was tested with the Kolmogorov-Smirnov Test. If the significance level is less than .05, the normality assumption

has been violated. The significance level is greater than .05 for all subgroups of participants relative to math scores. The *p* value for students with little to no parental support was .200, and the *p* value for students with parental support .200. Therefore, the assumption of normality was met. This is presented in Table 13.

Table 13

Kolmogorov-Smirnov Test Results for Math Academic Achievement by Parental Support

		Kolmogorov-Smirnov		
	Parental Support	Statistic	*Df*	*p*
Math	No	.108	21	.200
	Yes	.053	73	.200

Note. Cases were weighted.

For the Levene's test, as it relates to math scores, was statistically significant. $p < .001$, therefore, the assumption was violated. This is presented in Table 14.

Table 14

Levene's Test of Equal Variances Results for Math Academic Achievement by Parental Support

		F	*p*	*t*	*df*	*p*	Mean Difference
Math	Equal variances assumed	23.58	.000	-0.11	144	.912	-0.88
	Equal variances not assumed			-0.11	117.37	.912	-0.88

Note. Cases were weighted.

Results

There was no significant difference in academic achievement between high school students with parental support ($M = 512.78$, $SD = 34.64$) and high school students without

parental support (M = 511.90, SD = 34.64) relative to math scores, $t(117.37) = -0.11$, $p = .912$, two-tailed, equal variances not assumed. Specifically, the mean difference = 0.88. The null hypothesis ($H_0 2$) was not rejected. *t*-Test results for academic achievement by parental support are presented in Table 15.

Table 15

t-Test Results for Math Academic Achievement by Parental Support

	Levene's Test for Equality of Error Variance	*F*	*p*	*t*	*df*	*p*	Mean Difference
Math	Equal variances assumed	23.58	.000	-0.11	144	.912	-0.88
	Equal variances not assumed			-0.11	117.37	.912	-0.88

Note. Cases were weighted.

Null Hypothesis Three

$H_0 3$: There is no statistically significant difference in academic achievement, as measured by Georgia Milestones as it relates to reading achievement scores, between high school students whose parents exhibit home-based parental involvement and high school students whose parents exhibit school-based parental involvement, as measured by the Family-School Partnership Scales.

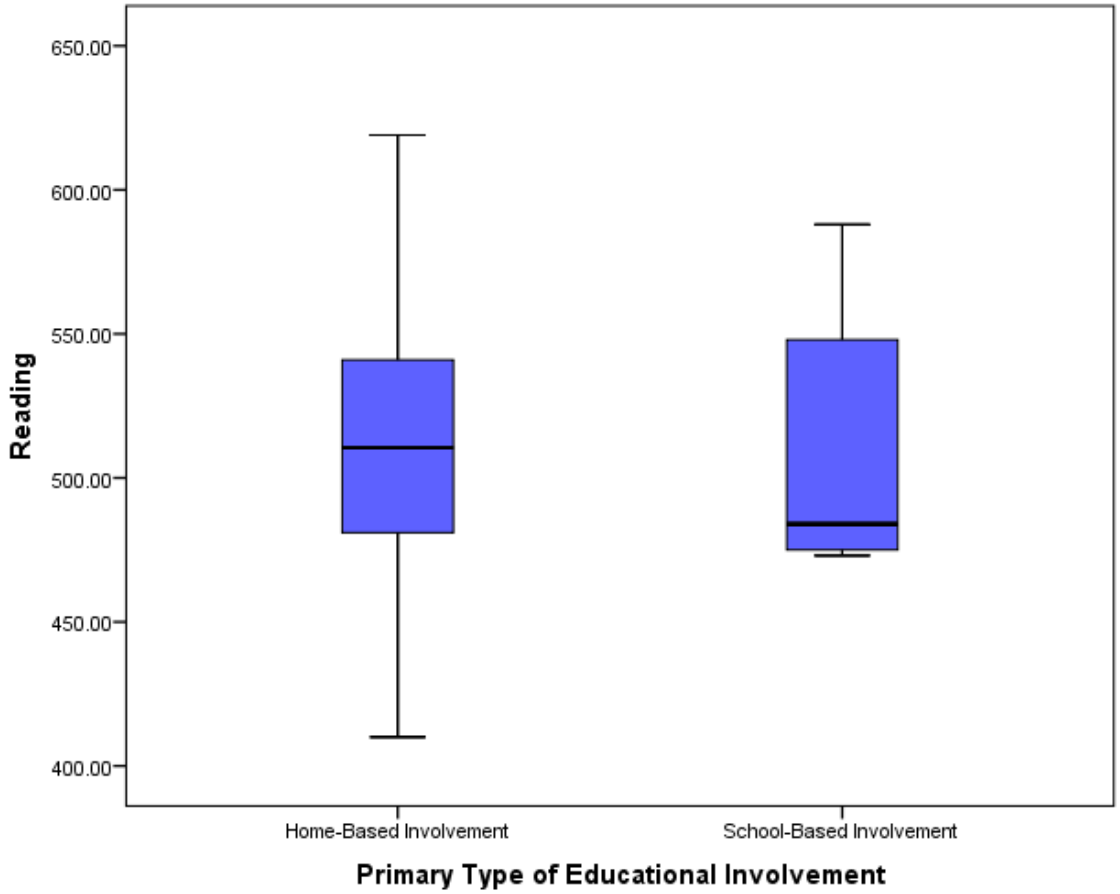
Data Screening

Relative to reading achievement scores, the IQR = 61.00 for students whose parents primarily exhibited home-based involvement. The median = 510.50. There were no extreme outliers. The IQR = 76.00 for students whose parents primarily exhibited school-based

involvement. The median = 484.00. There were no extreme outliers. The box and whisker plot of reading scores by primary type of parent educational involvement is presented in Figure 7

Figure 5

Box and Whisker Plot of Reading Scores by Type of Educational Involvement



Assumptions Testing

Research question three was answered with an independent samples *t* test. The independent variable was primary type of educational involvement with two levels (home-based involvement versus school-based involvement). The dependent variable was reading achievement scores. The normality of the data was tested with the Kolmogorov-Smirnov Test. The significance level is greater than .05 for all subgroups of participants relative to reading scores except for the distribution of reading scores of parents whose primary type of educational

involvement was school based (p = .026). Although the assumption was violated, the *t* test was continued because the sample was not normal, but the outlier did not distort the results. Therefore, the assumption of normality was met for one out of two distributions. As it relates to reading, the *p* value for students with home-based involvement was .200, and the *p* value for students with school-based involvement was .026. This is presented in Table 16.

Table 16

Kolmogorov-Smirnov Test Results for Math Academic Achievement by Type of Parent Involvement

		Kolmogorov-Smirnov		
	Primary Type of Educational Involvement	Statistic	*df*	*p*
Reading	Home-Based Involvement	.068	88	.200
	School-Based Involvement	.292	9	.026

Note. Cases were weighted.

For the Levene's test, as it relates to reading scores, was p = .214. Therefore, the assumption was met. This is presented in Table 17.

Table 17

Levene's Test for Equal Variances Results for Reading Academic Achievement by Type of Parent Involvement

		F	*p*	*t*	*df*	*p*	Mean Difference
Reading	Equal variances assumed	1.55	.214	-0.30	174	.766	-1.86
	Equal variances not assumed			-0.30	173.93	.766	-1.86

Note. Cases were weighted.

Results

There was no significant difference in academic achievement in reading between high school students whose parents primarily exhibited home-based educational involvement (M = 509.36, SD = 41.78) and high school students whose parents primarily exhibited school-based educational involvement (M = 511.22, SD = 40.82) relative to reading scores, $t(174) = -0.30$, p = .766, two-tailed. The mean difference = 1.86. *T*-test results for academic achievement by parental support are presented in Table 18.

Table 18

t-Test Results for Reading Academic Achievement by Type of Educational Involvement

	Levene's Test for Equality of Error Variance	*F*	*p*	*t*	*df*	*p*	Mean Difference
Reading	Equal variances assumed	1.55	.214	-0.30	174	.766	-1.86
	Equal variances not assumed			-0.30	173.93	.766	-1.86

Note. Cases were weighted.

Null Hypothesis Four

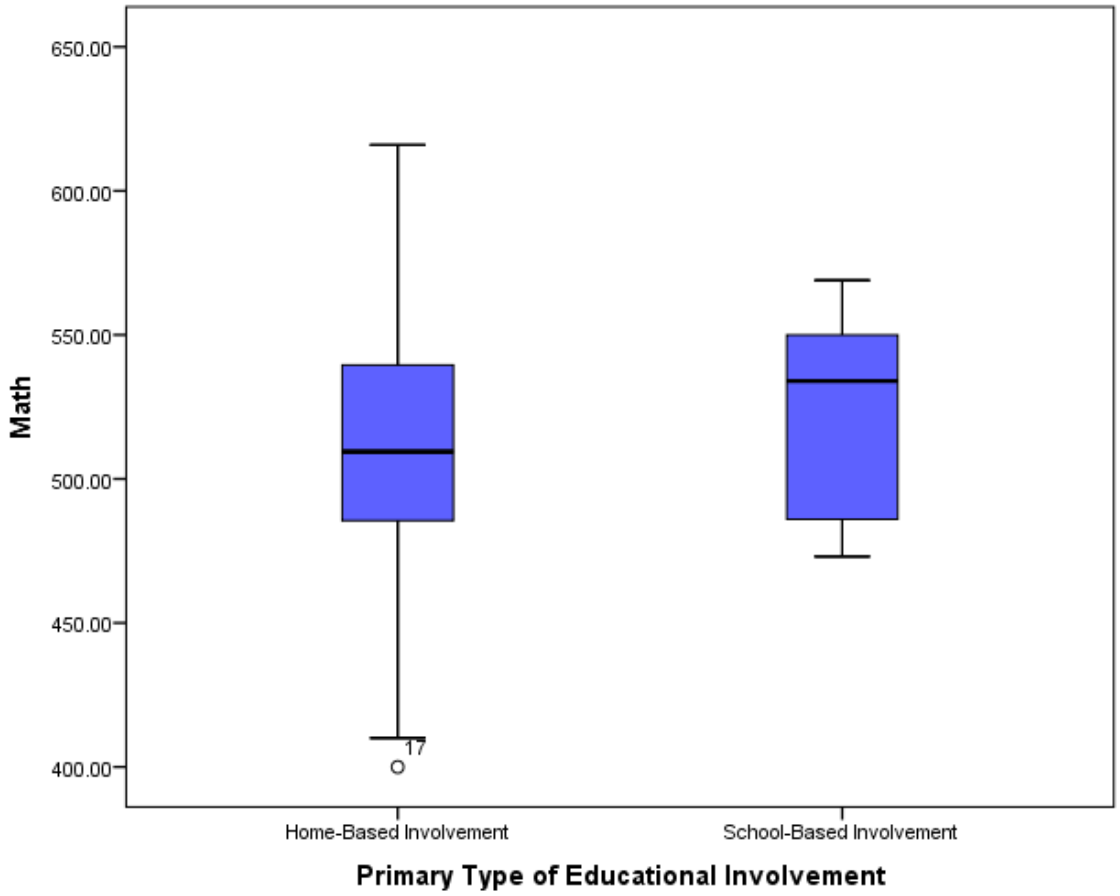
$H_0$4: There is no statistically significant difference in academic achievement, as measured by Georgia Milestones as it relates to math achievement scores, between high school students whose parents exhibit home-based parental involvement and high school students whose parents exhibit school-based parental involvement, as measured by the Family-School Partnership Scales.

Data Screening

Relative to math achievement scores, the IQR = 54.50 for students whose parents primarily exhibited home-based involvement. The median = 509.50. There was one extreme outlier (≤ 400). The analyses proceeded as planned without removing the outlier because the researcher assumed that the outlier was not due to any data entry errors and accurately reflected students' score. The IQR = 79.00 for students whose parents primarily exhibited school-based involvement. The median = 534.00. There were no statistical outliers. The box and whisker plot of math scores by primary type of parent educational involvement is presented in Figure 9.

Figure 6

Box and Whisker Plot of Math Scores by Type of Educational Involvement



Assumptions Testing

Research question three was answered with an independent samples *t*-test. The independent variable was primary type of educational involvement with two levels (home-based involvement versus school-based involvement). The dependent variable was math achievement scores. The normality of the data was tested with the Kolmogorov-Smirnov Test. The significance level is greater than .05 for all subgroups of participants relative to math scores. As it relates to math, the *p* value for home-based involvement is .200, and the *p* value for school-based involvement is .200. Therefore, the assumption of normality was met for two out of two distributions. This is presented in Table 19.

Table 19

Kolmogorov-Smirnov Test Results for Math Academic Achievement by Type of Parent Involvement

		Kolmogorov-Smirnov		
	Primary Type of Educational Involvement	Statistic	*df*	*p*
Math	Home-Based Involvement	.058	88	.200
	School-Based Involvement	.171	9	.200

Note. Cases were weighted.

For the Levene's test, as it relates to math scores, was p =.712. Therefore, the assumption was not violated. This is presented in Table 20.

Table 20

Levene's Test of Equal Variance Results for Math Academic Achievement by Type of Parent Involvement

		F	*p*	*t*	*df*	*p*	Mean Difference
Math	Equal variances assumed	0.14	.712	-2.26	174	.025	-13.35
	Equal variances not assumed			-2.26	169.95	.025	-13.35

Note. Cases were weighted.

t-Test results for math academic achievement by parental support are presented in Table 21.

Table 21

t-Test Results for Math Academic Achievement by Type of Educational Involvement

	Levene's Test for Equality of Error Variance	*F*	*p*	*t*	*df*	*p*	Mean Difference
Math	Equal variances assumed	0.14	.712	-2.26	174	.025	-13.35
	Equal variances not assumed			-2.26	169.95	.025	-13.35

Note. Cases were weighted.

Results

There was a significant difference in academic achievement between high school students whose parents primarily exhibited home-based educational involvement (M = 510.19, SD = 42.07) and high school students whose parents primarily exhibited school-based educational

involvement (M = 523.44, SD = 36.00) relative to math scores, $t(174) = -2.26$, $p = .025$, two-tailed. Cohen's $d = 0.34$ indicates a medium effect size.

High school students whose parents primarily exhibited school-based educational involvement had significantly higher math scores than high school students whose parents primarily exhibited home-based educational involvement. Therefore, the null hypothesis ($H_0 4$) was rejected.

Summary

Four research questions and four associated hypotheses were formulated for investigation. The hypotheses were tested with independent samples *t* tests. It was determined that there was a significant difference in academic achievement between high school students with parental support and high school students without parental support relative to reading scores. Students with parental support scored significantly higher in reading achievement than students who did not have parental support. This was a medium effect size.

There was a significant difference in academic achievement between high school students whose parents primarily exhibited home-based educational involvement and high school students whose parents primarily exhibited school-based educational involvement relative to math scores. High school students whose parents primarily exhibited school-based educational involvement had significantly higher math scores than high school students whose parents primarily exhibited home-based educational involvement. Recommendations and implications will be discussed.

CHAPTER FIVE: CONCLUSIONS

Overview

The component of the conclusion of this study is documented within this chapter. A discussion of the results from the testing for each research question is the critical component of this chapter and the study. This study revealed that there is a statistically significant difference between students with parental support and students with little to no parental support. Furthermore, it revealed a statistically difference between students whose parents exhibit home-based parental involvement and students whose parents exhibit school-based parental involvement. This chapter also references the current literature as it relates to the concepts and findings from this study. The chapter concludes with the limitations of the study and future recommendations to increase parental involvement within a high school setting.

Discussion

The purpose of this quantitative, causal comparative study was to investigate the effect of parental involvement on the academic achievement of high school students in a high school in Central Georgia and to determine if there is a difference in the types of parental involvement as it relates to the academic achievement of high school students. The study is important because there was limited research that revealed the impact of parental involvement on academic achievement in a high school setting. Parental involvement was measured using the parents and student Family-School Partnership Scores survey; academic achievement was measured using the Georgia Milestones state assessment. Data were analyzed using frequency distribution two *t*-tests to determine the differences in achievement of students with parental involvement and those with little to no parental involvement. More specifically, the research sought to answer the following questions:

Research Question One

The first research question was to address whether there was a statistically significant difference in academic achievement as it relates to reading achievement scores between high school students with parental support and high school students without parental support First, there was a significant difference in academic achievement between high school students with parental support (and high school students without parental support relative to reading scores. On the average, students with parental support scored 17.64 points higher in reading achievement than students who did not have parental support. A similar study also examined the relationship between parental involvement and academic achievement; findings indicated that students with parents who were involved in their education achieved higher scores in reading than students with little to no parental involvement; however, this particular study was conducted at the primary grade level (Fajoju et al., 2016). The results were similar as the study was generalized to the population of one specific school. As represented in this study, academic achievement has been proven to be affected by parental involvement (Opoku-Assare & Siaw, 2016). Therefore, it is necessary for schools to develop a plan to improve parental involvement.

Research Question Two

The second research question was to address whether there was a statistically significant difference in academic achievement as it relates to math achievement scores between high school students with parental support and high school students without parental support. Surprisingly, key findings revealed that there was no significant difference in academic achievement between high school students with parental support and high school students without parental support relative to math scores. A similar study revealed that parental involvement contributed to fifth and sixth graders' increase in math scores; however, the study was conducted at a lower grade

level (Rodriguez et al., 2017). Although the study was similar, the results were different, and the demographics within the study were totally opposite which could justify the difference in the results. Nevertheless, there was not any difference in academic achievement as it pertains to math scores, parental involvement still remains a determinant of a child's success (Costa & Faria, 2017).

Research Question Three

The third research question addressed whether there was a statistically significant difference in academic achievement as it relates to reading achievement scores between students whose parents exhibit home-based parental involvement and students whose parents exhibit school-based parental involvement. The results revealed that there was no significant difference in academic achievement between high school students whose parents primarily exhibited home-based educational involvement and high school students whose parents primarily exhibited school-based educational involvement relative to reading scores. High school students whose parents primarily exhibited school-based educational involvement had similar scores to high school students whose parents primarily exhibited home-based educational involvement. Most of the students scored proficient or near proficient in reading whether parents exhibited school-based or home-based parental involvement which confirms the ideology of Bronfenbrenner's theory. Bronfenbrenner's ecological systems theory explained how the environment influenced the lives of children. The ecological systems theory explained how everything in a child's life affected the way that he or she developed and grew (Bronfenbrenner, 1981). Therefore, these results further establishes the effect the type of parental involvement whether it is school-based or home-based has on academic achievement.

Research Question Four

The fourth research question addressed whether there was a statistically significant difference in academic achievement as it relates to math achievement scores between students whose parents exhibit home-based parental involvement and students whose parents exhibit school-based parental involvement The results revealed that there was a significant difference in academic achievement between high school students whose parents primarily exhibited home-based educational involvement and high school students whose parents primarily exhibited school-based educational involvement relative to math scores. High school students whose parents primarily exhibited school-based educational involvement had significantly higher math scores than high school students whose parents primarily exhibited home-based educational involvement. As mentioned, Bronfenbrenner's ecological systems theory explained how the environment influences children. As Bronfenbrenner, Bluteau et al. (2017) mentioned that theory's construct, chronosystem is identified as environmental events that occur throughout an individual's life which included home, community, school, and society as well as family interactions. Nonetheless, school-based parental involvement is a dominant factor for academic achievement (Durisic & Bunijevac, 2017). Therefore, these results further establishes the effect school-based parental involvement has on academic achievement.

On the basis of the research findings, the following conclusions could be drawn from the information and data analyzed.

- The result of the data analysis shows that parental involvement does impact the academic achievement of high school students.
- High school students with parental support achieved higher/gained more from high school education than high school students with little to no parental support.

- Students whose parents exhibit school-based parental involvement achieved higher or better academic performances than students with little to no parental support.

In summary, the impact assessment of parental involvement on high school students' achievement is significant. Regardless of the limitations of the study, the above findings have marked the beginning in the evaluative research agenda and processes of high school's students' achievements in South East Georgia.

Implications

The results of this study informed the researcher that parental involvement has an impact on academic achievement. As the parents were involved scores were higher within certain areas. When they were not higher between the two groups, parental involvement and little to no parental involvement, they were similar which still justifies the effect parental involvement has on academic achievement. As students enter into the secondary levels, parental involvement gradually declines and academic achievement decreases or remains stagnant as well. Studies conducted about the impact of parental involvement on academic achievement at a secondary level is limited as well. Furthermore, it informed the researcher that school-based parental involvement had a greater impact as compared to home-based parental involvement. There are numerous barriers and benefits to parental involvement; however, the barriers can affect home-based parental involvement which further explains how school-based parental involvement overshadowed home-based parental involvement. Although there seems to be parental involvement within the school, most studies with a focus in parental involvement and academic achievement exist in lower grade levels. Therefore, more studies at the secondary level are needed. Nonetheless, neither parents nor teachers are satisfied with the depth of parental involvement within the school system (Gokturk & Dinckal, 2018). Therefore, school personnel

should have the desire to increase parental involvement within a high school setting. This study was conducted within a high school setting, and the findings do coincide with other lower grade level studies (Hamlin, 2017; Morgan, 2017)

Limitations

The researcher identified several limitations to this study. First, the school district would only approve for the study to be conducted at one high school within the district. Although findings were noted, using an additional school could have broadened the study. Secondly, since parental involvement could be problematic, several reminders had to be sent home for parents to complete the survey; therefore, it appeared to extend beyond the expected completion time. Third, the parent survey was quite lengthy. The parents seemed a bit discouraged about completing 116 questions. However, these limitations did not contribute to the types of parental involvement levels and the parents that actually completed the survey. Furthermore, the causal comparative research design had its limitation: the researcher was unable to control the independent variables. Therefore, the researcher had to explore and establish how the effects were related to the dependent variables. Nonetheless, the results of this study cannot be generalized beyond this population of students.

Recommendations for Future Research

The results of the study highlight an awareness of major impact on high school achievement. It should also motivate educational administrators and teachers to adopt alternative strategies in instructional management, besides teaching methods and existing concepts/theories of education as reviewed earlier in this study. The study also creates expectations for parents, teachers, and students in high schools, not only in Georgia but across the nation. It is empirically proven that high school's parental involvement significantly and positively impact high school

students' academic achievement. In the contest of the findings, the following recommendations are advanced.

1. Parental environment must be considered when planning and instituting academic achievement modalities in high school settings.
2. Teachers, parents, and students' engagements are critical success factors towards high school students' achievements.
3. High school students' parents should be involved in their children's teaching and learning.
4. Parental and neighborhood supports are needed to motivate high school students' learning habits to improve academic achievements.
5. Professional development in curriculum design and innovative teaching method should be given to teachers, in order to improve teaching efficacy in classrooms.
6. High schools should design a common curriculum structure of study that could be accepted by parents.
7. High schools should establish career and placement center for students' and parents' engagement.
8. Georgia State Government should recruit qualified teachers and staff that will directly be involved in teaching and learning. These are major issues concerning parents.
9. There should be ongoing research to evaluate high school academic performance.

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Appendices

Appendix A: Permission Request Approval

Research, Accountability and Assessment

December 1, 2020

Sharon Johnson has requested permission to conduct a research project entitled "A Causal-Comparative Study of the Effects of Parental Involvement on the Academic Achievement of Students in a Georgia High School". Her request has been approved as currently written. Any changes to the project will require a resubmission for review and lRB approval. A finalized copy of her research results should be filed with our office upon completion of the project.

Director, Research Accountability and Assessment

Appendix B: IRB Permission Request Approal

LIBERTY UNIVERSITY.
INSTITUTIONAL REVIEW BOARD

July 2, 2021

Sharon Johnson
Constance Pearson

Re: IRB Approval - IRB-FY20-21-770 A CAUSAL-COMPARATIVE STUDY OF THE EFFECT OF PARENTAL INVOLVEMENT ON THE ACADEMIC ACHIEVEMENT OF STUDENTS IN A GEORGIA HIGH SCHOOL

Dear Sharon Johnson, Constance Pearson:

We are pleased to inform you that your study has been approved by the Liberty University Institutional Review Board (IRB). This approval is extended to you for one year from the following date: July 2, 2021. If you need to make changes to the methodology as it pertains to human subjects, you must submit a modification to the IRB. Modifications can be completed through your Cayuse IRB account.

Your study falls under the expedited review category (45 CFR 46.110), which is applicable to specific, minimal risk studies and minor changes to approved studies for the following reason(s):

7. Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

Your stamped consent form(s) and final versions of your study documents can be found under the Attachments tab within the Submission Details section of your study on Cayuse IRB. Your stamped consent form(s) should be copied and used to gain the consent of your research participants. If you plan to provide your consent information electronically, the contents of the attached consent document(s) should be made available without alteration. Thank you for your cooperation with the IRB, and we wish you well with your research project.

Sincerely,

G. Michele Baker, MA, CIP
Administrative Chair of Institutional Research
Research Ethics Office

Appendix C: Recruitment Letter for Participants

06/25/2020

Dear Parents/Students:

As a graduate student in the School of Education at Liberty University, I am conducting research as part of the requirements for a Doctoral degree. I am conducting research to better understand the effect of parental involvement on academic achievement in a high school setting. The purpose of my research is to determine which type of parental involvement is most effective and determine the impact of parental involvement on academic achievement. I am writing to invite eligible participants to join my study.

Participants must be a high school student and a parent of the student at the school. Participants will be asked to complete a survey. It should take approximately 30 to 45 minutes to complete the survey. Participation will be completely anonymous; names and other identifying information will be requested as part of this study, but the information will remain confidential.

In order to participate, a hyperlink to an online survey will be provided to complete the survey. Please sign and return the attached parental consent document to your child's teacher/school.

A consent document is attached to this letter. The consent document contains additional information about my research. Please sign the consent document and return it to me by February 20, 2020.

Participants will be entered in a raffle to receive movie tickets.

Sincerely,

Sharon Johnson
English Educator/Doctoral Candidate

Appendix D: Child Assent Form

Child Assent to Participate in a Research Study

What is the name of the study and who is doing the study?
The name of the study is A Causal-Comparative Study of the Effect of Parental Involvement on the Academic Achievement of Students in a Georgia High School

, and the person doing the study is Ms. Sharon Johnson.

Why is Ms. Sharon Johnson doing this study?
Ms. Sharon Johnson wants to know which type of parental involvement is most effective and determine the impact parental involvement has on academic achievement.

Why am I being asked to be in this study?
You are being asked to be in this study because you are a high school student.

If I decide to be in the study, what will happen and how long will it take?
If you decide to be in this study, you will complete a survey that will take 30 to 45 minutes.

Do I have to be in this study?
No, you do not have to be in this study. If you want to be in this study, then tell the researcher. If you don't want to, it's OK to say no. The researcher will not be angry. You can say yes now and change your mind later. It's up to you.

What if I have a question?
You can ask questions any time. You can ask now. You can ask later. You can talk to the researcher. If you do not understand something, please ask the researcher to explain it to you again.

Signing your name below means that you want to be in the study.

_____

Signature of Child/Witness Date

Ms. Sharon Johnson

Dr. Constance Pearson

Liberty University Institutional Review Board
1971 University Blvd, Green Hall 2845, Lynchburg, VA 24515

Appendix E: Parental Consent Form

Parental Consent

Title of the Project: A Causal-Comparative Study of the Effect of Parental Involvement on the Academic Achievement of Students in a Georgia High School

Principal Investigator: Sharon Johnson, Doctoral Candidate, Liberty University

Invitation to be Part of a Research Study

[Your child/student] is invited to participate in a research study. Participants must be ages 14-18, grades 9-12. Taking part in this research project is voluntary.

Please take time to read this entire form and ask questions before deciding whether to allow your student to take part in this research project.

What is the study about and why are we doing it?

The purpose of the study is to determine the impact of parental involvement on academic achievement and determine which type of parental involvement is most effective.

What will participants be asked to do in this study?

If you agree to allow your student be in this study, I would ask him or her to do the following things:

1. First task: Complete a survey that will last 30 to 45 minutes.

How could participants or others benefit from this study?

Participants should not expect to receive a direct benefit from taking part in this study.

Benefits to society include gaining a better understanding of parental involvement as it relates to academic achievement.

How will personal information be protected?

The records of this study will be kept confidential Research records will be stored securely, and only the researcher will have access to the records. Data collected as part of this study may be shared for use in future research studies or with other researchers. If data collected from the participants is shared, any information that could identify them, if applicable, will be removed before the data is shared.

Participant responses will be anonymous, and participant responses will be kept confidential through the use of pseudonyms/codes. Data will be stored on a password-locked computer and may be used in future presentations. After three years, all electronic records will be deleted.

How will participants be compensated for being part of the study?

Participants will be compensated for participating in this study. Subjects receive class points or some other token. Subjects will be compensated after the survey is completed.

Is study participation voluntary?

Participation in this study is voluntary. Your decision whether or not to allow your student to participate will not affect your or his or her current or future relations with Liberty University. If you decide to allow your student to participate, she or he is free to not answer any question or withdraw at any time without affecting those relationships.

What should be done if a participant wishes to withdraw from the study?

If you choose to withdraw your student from the study/your student chooses to withdraw from the study, please contact the researcher. Should you choose to withdraw her or him, data collected from your student will be destroyed immediately and will not be included in this study.

Whom do you contact if you have questions or concerns about the study?

The researcher conducting this study is Ms. Sharon Johnson. You may ask any questions you have now. If you have questions later. You may also contact the researcher's faculty sponsor, Dr. Constance Pearson.

Whom do you contact if you have questions about rights as a research participant?

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA 24515 or email at irb@liberty.edu

Your Consent

Before agreeing to be part of the research, please be sure that you understand what the study is about. You will be given a copy of this document for your records/you can print a copy of the document for your records. If you have any questions about the study later, you can contact the researcher/study team using the information provided above.

By signing this document, you are agreeing to allow your [child/student] to be in this study. Make sure you understand what the study is about before you sign. You will be given a copy of this document for your records. The researcher[s] will keep a copy with the study records. If you have any questions about the study after you sign this document, you can contact the study team using the information provided above.

I have read and understood the above information. I have asked questions and have received answers. I consent to allow my [child/student] to participate in the study.

_____

Printed Child's/Student's Name

_____

Parent's Signature Date

_____

Minor's Signature Date

Appendix F: Permission to Use Instrument

Home
Papers
Scale Descriptions
Current Research
Links
Model
Lab Members

The Family-School Partnership Lab

Statement of Use

We thank you for your interest in our research. On behalf of Kathy Hoover-Dempsey and Howard Sandler, you have permission to use and/or modify any of these scales. We ask that you cite the following:

Hoover-Dempsey, K.V., & Sandler, H.M. (2005). *Final Performance Report for OERI Grant # R305T010673: The Social Context of Parental Involvement: A Path to Enhanced Achievement*. Presented to Project Monitor, Institute of Education Sciences, U.S. Department of Education, March 22, 2005. (click here to view)

If you use any of the scales at Level 1 in the model-based graphic (including Parental Role Construction, Parental Efficacy, General School Invitations, Specific School Invitations, Specific Child Invitations, Time and Energy, Knowledge and Skills), please cite also:

Walker, J. M., Wilkins, A. S., Dallaire, J., Sandler, H. M., & Hoover-Dempsey, K. V. (2005). Parental involvement: Model revision through scale development. *Elementary School Journal, 106*(2): 85-104.
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