

THE EFFECT OF SECTION 504 PLANS ON ELEMENTARY STUDENT ATTENDANCE

by

Jeffrey Michael Guerin

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

Liberty University

2020

THE EFFECT OF SECTION 504 PLANS ON ELEMENTARY STUDENT ATTENDANCE

by Jeffrey Michael Guerin

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

Liberty University, Lynchburg, VA

2020

APPROVED BY:

Frank S. Bailey Ed.D., Committee Chair

Scott B. Watson Ph.D., Committee Member

## ABSTRACT

The purpose of this causal-comparative, quantitative study was to compare the attendance of students with a Section 504 plan to their non-disabled peers, in School District A, located in central Virginia. A study of this nature is important, as attendance is a key indicator for student success and academic progress. Additionally, the Virginia Department of Education has recently established standards for accreditation based on school attendance. Students with disabilities are at an increased risk of being truant from school. Section 504 plans are federal mandates set in place under the Rehabilitation Act of 1973/1974 that ensure students with disabilities receive educational opportunities that are equal to their non-disabled peers. The researcher used archival data from School District A. The sample included students from 11 elementary schools. Students with a Section 504 plan was the independent variable, and their attendance rate was the dependent variable. The researcher used a Mann-Whitney U test to compare the attendance rates of students with Section 504 plans and the attendance rates of their non-disabled peers. The researcher found there was not a significant difference in the attendance rates of students with a 504 plan as compared to their non-disabled peers. Further research might include behavior and academic data for students with 504 plans as compared to their non-disabled peers.

*Keywords:* Section 504 plan, student attendance, accommodations, modifications

## **Dedication**

Dad,

I wish you were here to see this. We did it! It is hard to believe that after 20 years I have finally come to the end of my academic journey. It seemed as though this time would never come and honestly, there were many times that I was ready to give up. It was during those times I remembered your guidance, love, and support. Thank you for always believing in me and pushing me to be better. It is because of you that I have worked so hard and persevered this far. Although I am at the end of my academic journey, I will never stop learning. Love you Dad

Mom,

Words cannot express my gratitude for your sacrifices over the years. Thank you for pushing me and asking me how I was doing on my dissertation. Can you believe it? Your life long student has finally finished! This time I am really done. Thank you for your never-ending support and encouragement over the past few years, and most important, thank you for your never-ending prayers. Love you always

Jen,

To my loving and supportive wife. Thank you for letting me lean on you through the years. I know that the light at the end of the tunnel has not always been this bright but you stood by me and provided me the time to work on my schooling. Thank you for the sacrifices, too many to list, that have enabled me to arrive at this point in my academic journey. It is your turn! Go get that PhD and let me be the shoulder you lean on. Love, Dr. Jeff

Jeffrey and Cedar,

My two boys, the culmination of this project is proof that anything is possible. Always look to God to guide you, when you do this you cannot go wrong. I love you both and I know God has great plans for both of your lives. Love, Dr. Dad

### **Acknowledgments**

First, I want to thank the Lord, it is with His grace and mercy that I have been able to participate in the doctoral program at Liberty. Thank you for opening doors, and more importantly closing doors, through my educational journey. It is with Your blessing that I have been able to complete this program and for that I am eternally grateful.

Second, I would like to thank Dr. Black for encouraging me to pursue my Doctorate in Education. Honestly, I never thought past the Ed.S program until taking your class, you told us we were half-way through, push forward and get that Ed.D. Those words motivated me along this journey. P.S. thanks for the Starbucks coffee!

Third, I would like to thank Dr. Bailey, not only for taking me on as a dissertation student, but also for the guidance and encouragement that you have given me over the past few years. It is hard to believe that it has been three years. Thanks again for believing in me, working with me, and more importantly praying for me.

I would like to thank my editor, Dr. Gorman. You worked with me for countless hours preparing this paper into what it is today. Thanks for the late night, weekend hours, and extra time you worked with me. The final product was only possible with your help.

## Table of Contents

ABSTRACT .....	3
Dedication (Optional) .....	4
Acknowledgments .....	6
Table of Contents .....	7
List of Tables .....	9
List of Figures .....	10
List of Abbreviations .....	11
CHAPTER ONE: INTRODUCTION .....	12
Overview .....	12
Background .....	12
Problem Statement .....	23
Purpose Statement .....	24
Significance of the Study .....	24
Research Question(s) .....	25
Definitions .....	25
CHAPTER TWO: LITERATURE REVIEW .....	28
Overview .....	28
Theoretical Framework .....	28
Related Literature .....	33
Summary .....	58
CHAPTER THREE: METHODS .....	61
Overview .....	61

Research Question .....61

Hypothesis(es).....61

Design .....62

Participants and Setting.....63

Instrumentation .....64

Procedures .....65

Data Analysis .....66

CHAPTER FOUR: FINDINGS .....68

    Overview .....68

    Research Question .....68

    Null Hypotheses.....68

    Descriptive Statistics.....69

    Results.....70

CHAPTER FIVE: CONCLUSIONS .....80

    Overview .....80

    Discussion .....80

    Implications.....84

    Limitations .....86

    Recommendations for Future Research .....87

REFERENCES .....89

APPENDIX A.....102

APPENDIX B .....103



**List of Tables**

Table 1. Descriptive Statistics: Students' Absences .....	72
Table 2. Descriptive Statistics: Male Students' Absences .....	75
Table 3. Descriptive Statistics: Female Students' Absences .....	78

### List of Figures

<i>Figure 1.</i> Frequency distribution of absences for all students. ....	69
<i>Figure 2.</i> Boxplot of days absent for all students. ....	71
<i>Figure 3.</i> Frequency distribution of absences for students in both groups. ....	72
<i>Figure 4.</i> Mann-Whitney U Test for all students. ....	73
<i>Figure 5.</i> Boxplot of days absent for male students. ....	74
<i>Figure 6.</i> Frequency distribution of absences for male students. ....	75
<i>Figure 7.</i> Mann-Whitney U Test for male students. ....	76
<i>Figure 8.</i> Boxplot of days absent for female students. ....	77
<i>Figure 9.</i> Frequency distribution of absences for female students. ....	78
<i>Figure 10.</i> Mann-Whitney U Test for all female students. ....	79

### **List of Abbreviations**

All Handicapped Children Act (AHCA)

American with Disabilities Act Amendments Act (ADAAA)

Autism Spectrum Disorder (ASD)

Emotionally Disturbed (ED)

Free Appropriate Public Education (FAPE)

Individualized Education Plan (IEP)

Individuals with Disabilities Education Act (IDEA)

Least Restrictive Environment (LRE)

Students with Disabilities (SWD)

Virginia Department of Education (VDOE)

Zone of Proximal Development (ZPD).

## **CHAPTER ONE: INTRODUCTION**

### **Overview**

The purpose of this quantitative study is to compare the attendance of elementary students with a Section 504 plan as compared to their non-disabled peers. Section 504 plans offer classroom teacher-directed support for students with disabilities (SWD). The researcher used archival data from School District A to investigate the effect of 504 plans on student attendance. The content of Chapter One includes a background, problem statement, a purpose statement, the significance of the study, the research question, and the key definitions.

### **Background**

Throughout history, SWD did not receive the same educational opportunities as their non-disabled peers (Zirkel & Weathers, 2014). Teachers educated SWD away from their non-disabled peers; therefore, they were unable to access the general education curriculum. Over the last half century, lawmakers have passed laws to ensure all students have access to the general education curriculum. In 1964, lawmakers signed the Civil Rights Act (Hersch & Bennett, 2015). Although this Civil Rights Act focused directly on desegregation, it was influential in laying the foundation for equality for SWD. Subsequent to the Civil Rights Act of 1964, in 1973, lawmakers signed Section 504 of the Rehabilitation Act into law. McGovern (2015) found that full implementation of Section 504 occurred in 1977 when the U.S. Congress clarified various elements of the Section 504 plan. Zirkel and Weathers (2014) noted that between 1% and 1.5% of students in public school districts across the United States received support through a Section 504 plan, hereinafter referred to as a 504 plan. The implementation of a 504 plan requires that the classroom teacher provide accommodations to support the student's individual educational needs, challenges, and behavioral concerns within the general education classroom

(Katsiyannis & Reed, 1999; Zirkel & Weathers, 2014). Section 504 plans fall under the Rehabilitation Act of both 1973 and its subsequent revision in 1974 (McGovern, 2015).

### **Rehabilitation Act of 1973/1974**

On September 26, 1973, President Nixon signed the Rehabilitation Act of 1973 into law, which prohibited all forms of discrimination against individuals with disabilities (Chamusco, 2017). In 1974, Congress then amended the Rehabilitation Act of 1973 to broaden the definition of a disability and to ensure more students qualified for accommodations and modifications because of their disabilities. Chamusco (2017) and McGovern (2015) noted that although the Rehabilitation Act of 1973 and its subsequent amendment in 1974 were landmark piece of legislation, states did not fully implement the act until 1977. They found that the 1973 version of the act did not include an area for supporting SWD. Chamusco (2017) called the implementation of the law a historic victory for the movement to support individuals with disabilities.

With respect to educational services, the Rehabilitation Act of 1973 and its subsequent in 1974 included the following five sections: 501, 503, 504, 505 and 508. Section 504 is the most well-known and influential provision. Section 504 of the Rehabilitation Act is a federal law aimed at protecting the rights of individuals with disabilities in programs that receive funding or assistance from the federal government (McGovern, 2015). Section 504 plans support students ages 3 through 22. Currently, post-secondary institutions are not required to provide accommodations under a Section 504 Plan (McGovern, 2015).

The passage of the Rehabilitation Act of 1973 was not Congress's first attempt to provide educational services for individuals with disabilities. Both the Vocational Rehabilitation Act of 1918 and the Smith-Fess Act of 1920 attempted to provide anti-discriminatory statutes to support individuals with disabilities (Chamusco, 2017). Although the acts did not receive Congress

approval, the tenets of these acts were the framework for future discussions on ways to support individuals with disabilities, and they had a significant influence on the development of the Rehabilitation Act of 1973. Since passing the Rehabilitation Act of 1973, Congress amended the act twice to ensure equal opportunities for individuals with disabilities (Chamusco, 2017).

### **The American with Disabilities Act Amendments Act (ADAAA) of 2008 and 2010**

In 2008, Congress passed the American with Disabilities Act Amendments Act (ADAAA), thereby giving civil rights protection to individuals with disabilities and protecting them from discrimination on the basis of their race, gender, national origin, and religious preference (Daniels-Bacchus, 2018). Under ADAAA, individuals with disabilities have the right to the same opportunities within the work setting as individuals without disabilities. In 2010, the federal government expanded the number of categories under which individuals qualified for a disability. Because the federal government expanded the number of categories, there was an increase in the number of individuals being identified with a disability and receiving support under Section 504 (Daniels-Bacchus, 2018). This increase in the number of disability categories had a profound effect on school systems as they had a significant increase in the number of students who received services under Section 504 (Daniels-Bacchus, 2018).

In addition to increasing the number of categories under which individuals qualify for a disability, the 2010 revision of ADAAA recognized the impact a mitigating circumstance had on a student's disability. A mitigating circumstance can include the impact of a student's medication on his or her disability. Cortiella and Kaloi (2010) found school systems were limited in making decisions regarding mitigating circumstances. In determining whether a student qualifies for a 504 plan, the school system must consider a student's disability without

the mitigating impact of his or her medication (Cortiella & Kaloi, 2010). Weber (2010) provided guidance regarding a student's disability status and mitigating circumstances, stating,

an impairment that is episodic or in remission is a disability if it would substantially limit a major life activity when active, and the determination whether an impairment substantially limits a major life activity is to be made without regard to the ameliorative effects of mitigating measures. (p. 6)

SWD who do not qualify for an individualized education plan (IEP) may be eligible to receive services under a 504 plan. Harrison, Bunford, Evans, and Owens (2013) noted that Congress passed the Individuals with Disability Act (IDEA) and Section 504 of the Rehabilitation Act of 1973 to provide equal access for individuals with disabilities. Zirkel and Weathers (2016) found that Congress provided individuals with disabilities with equal opportunities for employment in federally funded programs under the original version of the Rehabilitation Act of 1973 and that the 1974 revision to the act provided equal access to public education for SWD (Soodak & Podell, 1993). Section 504 is a civil rights statute of the Rehabilitation Act of 1973 that prohibits the practice of discrimination against SWD in public and private schools receiving federal funds and that mandates schools to provide those students with support and a free and appropriate public education (Zirkel & Weathers, 2016).

School districts under the jurisdiction of the Virginia Department of Education (VDOE) are responsible for identifying students with a disability that negatively impacts their academic performance. Smeets and Roeleveld (2016) acknowledged that if school personnel, teachers, or parents suspect a student may have a disability, they must refer this student for an evaluation. In the state of Virginia, the school-based team, also known as child-study committee, makes the final determination in referring a student for an evaluation (VDOE, n.d.). The school-based team

consists of a select group of core members, which includes a school administrator, general education teacher, special education teacher, school counselor, and parent (VDOE, n.d.).

If a student receives individualized instructional support and accommodations and does not make adequate progress within a designated period, then the school-based team should request a formal evaluation to determine if the student qualifies for special education services or a 504 plan. If a student meets the eligibility criteria for either special education services or 504 Plan, then the eligibility team develops an IEP or 504 plan geared to meet the student's individual needs. A student with an IEP often requires specialized instruction and accommodations to access the general education curriculum; conversely, a student with a 504 plan only requires accommodations to assist him or herein accessing the general education curriculum (Zirkel & Weathers, 2016). Accommodations can include oral directions, preferential seating, and access to either the teacher's or a peer's notes. The overarching purpose of a 504 plan is to provide the student with the supports he or she needs to access the general education curriculum (Zirkel & Weathers, 2016).

### **Historical Overview**

To fully understand the history of Section 504, IDEA must also be discussed. In 1975, Congress passed the All Handicapped Children Act (AHCA). Congress made several amendments to AHCA in the years that followed and in 1990 AHCA was renamed IDEA. Bateman (2017) found one of the most noteworthy amendments was the right for parents to be full participating members in the special education process. Parents were now part of the IEP team with decision-making rights with respect to their children's education.

Under IDEA, a student can qualify for special education services under at least 1 of the following 13 disability categories: autism, deaf-blindness, deafness, emotional disturbance,



hearing impairment, intellectual disability, multiple disabilities, orthopedic impairment, other health impairment, specific learning disability, speech or language impairment, traumatic brain injury, or visual impairment (including blindness). To qualify for special education services, the student must have the identified disability and it must have a negative impact on his or her educational/social performance (Bateman, 2017).

The guidelines for Section 504 do not contain a list of disabling conditions. In 2008, Congress passed the Americans with Disabilities Act Amendments Act (ADAAA). By passing ADAAA, Congress broadened the scope of what constitutes a disability. Under Section 504 and ADAAA, students are eligible for services if they meet three criteria (Weber, 2012). The first criterion is students must have a physical or mental impairment that limits one or more major life activities. Civic Impulse (2018) outlined U.S. Code § 12102 by identifying major life activities as follows: “caring for oneself, performing manual tasks, seeing, hearing, eating, sleeping, walking, standing, lifting, bending, speaking, breathing, learning, reading, concentrating, thinking, communicating, and working” (p.1). The second criterion is an identified record of the impairment, and the third criterion being regarded of having such an impairment.

Prior to the development of IDEA and Section 504, SWD were not educated in the same classroom as their non-disabled peers (McGovern, 2015). Although it is part of the Rehabilitation Act of 1973/1974, Section 504 is a broad civil rights law that protects individuals with disabilities by prohibiting discrimination and by giving them the opportunity to participate fully in the general education curriculum with their non-disabled peers, to the maximum extent possible, in any institution receiving federal funding (Spiel & Evans, 2014). Spiel and Evans (2014) identified regulations set forth in Section 504 requiring school districts to develop a way

to identify students needing support, documenting procedural safeguards, and assessing the process to ensure all students receive a free appropriate public education (FAPE).

Weber (2012) reported that a component of the Section 504 process was for school districts to hire a site coordinator. The site coordinator can be a school administrator (principal or assistant principal) who works in the building. This administrator reports findings pertaining to the development, implementation, and review of 504 plans to either the special education office or the superintendent (Weber, 2012).

Prior to the passage of the Rehabilitation Act of 1973/1974 and AHCA of 1975, SWD did not have the opportunity to learn alongside their nondisabled peers (McGovern, 2015). Since Congress passed those laws, beliefs regarding the practice of educating SWD with their nondisabled peers has changed. Educational theorists have noted that the focus has turned toward inclusion. Proponents for equity note that inclusion allows SWD to be taught in the same environment as their non-disabled peers (Bateman, 2017; Dudley-Marling & Burns, 2014; Katsiyannis & Reed, 1999; McGovern, 2015). This equity involves providing supports and provisions that allow every student to access the general education curriculum. Bateman (2017) noted that educational policymakers across the United States have increasingly promoted the practice of inclusion in the public schools. Ultimately, the primary goal is to help teachers, students, and staff develop a positive attitude toward inclusion. A 504 plan is a means for a student with an identified disability to be included in the general education curriculum with selective accommodations (McGovern, 2015).

**Section 504 Plan.** Prior to IDEA and Section 504, SWD were not educated in the same classroom, or even the same schools, as their non-disabled peers (McGovern, 2015). Section 504 is part of the Rehabilitation Act of 1973 and its amendment in 1974. The Rehabilitation Act is a

broad civil rights law that protects individuals with disabilities from various types of discrimination by making it unlawful for an individual with a disability to be discriminated against or excluded from being able to participated in any program that receives federal financial funding (29 u.s.c. § 794).

Section 504 also provides the opportunity for SWD to participate fully in the educational curriculum with their non-disabled peers, to the maximum extent possible, in any institution that receives federal funding (Spiel & Evans, 2014). School systems that receive federal funding must provide appropriate educational supports for SWD and implement their IEP and 504 Plans with fidelity. Prior to the Rehabilitation Act of 1973/1974 becoming law, educators and administrators believed the general education setting was an inappropriate setting for SWD. As Congress passed additional laws and mandates clearly defining the role of states and their respective schools in providing all students with an equal opportunity to an appropriate education, educators' and administrators' beliefs regarding the appropriateness of the general education setting for SWD changed (Zirkel & Weathers, 2016). It is important for educators to implement strategies and supports to ensure all students can succeed, regardless of their abilities or disabilities. Unlike IEPs, which are under IDEA and federally funded, Section 504 plans are an unfunded mandate in which schools are required to implement strategies, modifications, accommodations, and other supports without financial compensation from the federal or state government (Zirkel & Weathers, 2016).

Zirkel and Weathers (2014) and Smith (2001) found school districts increased their focus on 504 plans as parents whose children did not qualify under IDEA sought additional modifications and accommodations. Zirkel and Weathers (2014) found between 1 and 1.5% of public school students in the United States received support through a 504 plan. They further

noted the classroom teacher is responsible for implementing a 504 plan and for addressing the student's individual educational needs, challenges, and behavioral concerns.

Prior to the Rehabilitation Act of 1973, schools did not give SWD access to the general education curriculum nor did they provide accommodations and modifications to meet the individual learning needs of SWD (McGovern, 2015). Rulings in several landmark cases by federal and district courts were galvanizing forces in promoting equal opportunities in schools across the United States for SWD. The court's ruling in *Brown v. Board of Education* not only made it unconstitutional to segregate students based on race but also promoted an increased understanding that SWD were entitled to an appropriate public education (McGovern, 2015). In the final decision, the court concluded that segregation of a student based on his or her disability was unconstitutional. The court ruled, "No child eligible for a publicly supported education in the...public schools shall be excluded from a regular public school assignment" (McGovern, 2015, p. 119). Subsequent court cases such as *Pennsylvania Association for Retarded Children v. Pennsylvania* and *Mills v. Board of Education* were instrumental in ensuring equal educational rights for all students. As a result of the federal court's rulings in these cases, legislators established and passed laws to eliminate the practice of discriminating against SWD and to ensure SWD could access the general education curriculum and receive the services provided to students without disabilities. The Rehabilitation Act of 1973, Public Law 93-112, and its Section 504 regulations and AHCA were instrumental in providing a framework for students to receive a free and appropriate education in the LRE.

### **Society-at-Large**

With the passing of the Rehabilitation Act of 1973/1974, IDEA and AHCA, the way in which SWD were educated changed. This change took time, but the focus became on inclusive

practices where all students were taught in the same room regardless of disability (McGovern, 2015). General education teachers as well as their special education counterparts lacked experience to fully implement inclusion (Downing, 2010). Educators felt as though they are underprepared to meet the needs of SWD (Tkachyk, 2013). As the educational system evolves, both equity and equality are used as lenses to determine if students' needs are being met (McGovern, 2015).

### **Theory**

The basis of this research revolves around the understanding that students cannot learn, and therefore reach their academic potential unless they are present at school. Bandura's (1976) social cognitive theory offers insight into the area of attendance and achievement. For some students, attendance is based on need. Maslow's hierarchy of needs helps identify missing elements for students. These missing elements have a greater implication for SWD (Bargerhuff, 2013). Vygotsky's (1978) social development also holds implications to the present research. Vygotsky's social development theory stresses the need for students to learn through social interactions. If students with disabilities/504 plans are not present, they cannot benefit from this social interaction (Bargerhuff, 2013).

### **Student Attendance**

Researchers investigated the relationship between school attendance and multiple student outcomes (Balfanz & Byrnes, 2012; Morrissey, Hutchison, & Winsler, 2014). Balfanz and Byrnes (2012) used a correlational design to investigate the relationship between school attendance and academic achievement among students from low socioeconomic backgrounds. They found a statistically significant negative relationship between students' absenteeism rates

and their academic achievement across core content areas academic achievement. They concluded that as students' absenteeism rates increased, their academic achievement decreased.

To improve school attendance rates in schools across their states, state lawmakers have passed compulsory school attendance laws for school-age children (Morrissey et al., 2014). Although these laws vary from state to state, their overarching purpose is to ensure students achieve a certain academic level. The Commonwealth of Virginia requires every student age 5 to 18 to attend school on a regular basis (VDOE, n.d.). Additional safeguards include the provision of a free and appropriate public education up to the age of 21. Although state lawmakers develop compulsory school attendance laws, local government and school officials must develop, implement, and enforce school attendance regulations (VDOE, n.d.).

Balfanz and Byrnes (2012) found a direct link between high levels of absenteeism and poor academic performance. Morrissey et al. (2014) concluded that students' school attendance during their elementary school years was a predictive factor of their academic success or failure during future schooling. Morrissey et al. noted that students with disproportionately high absenteeism rates lost key instructional time and were unable to participate in instructional-related activities designed to promote their learning. Morrissey et al. also described the negative implications of high absenteeism rates on schools. Morrissey et al. found schools with disproportionately high absenteeism typically underperformed on state tests and have an increased dropout rate. Morrissey et al. stressed that students needed to report to their scheduled classes, to be successful academically. In Virginia, the school year runs for 180 days (VDOE, n.d.). Daily is defined as attending school each day.

### **Problem Statement**

Zirkel and Weathers (2016) found that approximately 1.5% of students across the United States receive services under a 504 plan. This represents an increase of about 0.5% over a six-year period (2010 to 2016) in the number of students receiving services. Nationally, School districts are determining that fewer SWD qualifying for special education under IDEA (Zirkel & Weathers, 2016). Although SWD do not qualify for support under IDEA, they have the right to receive and use accommodations and modifications to access the general education curriculum through a 504 plan. Researchers underscored the need to investigate the influence of 504 plans on school attendance outcomes (Lightner, Kipps-Vaughan, Schulte, & Trice, 2012; Ofiesh, 2007). Researchers further stressed the need to determine teachers' fidelity to implementation of 504 plans and the appropriateness of the accommodations and modifications in relation to the individual learning needs of the student (Lightner et al., 2012).

The objective of a 504 plan, as noted by Morrissey et al. (2014), is to formulate and implement accommodations that enable SWD have the same educational opportunities as their non-disabled peers. It is imperative that school districts evaluate the effectiveness of the 504 plan accommodations for SWD in relation to student attendance. Researchers found that students who did not attend school missed not only core-content instruction but also the opportunity to develop interpersonal relationships with their peers (McGovern, 2015; Ronfeldt, Owens-Farmer, McQueen, & Grissom, 2015; Zee, Jong, & Koomen, 2017). Although the impact of attendance has been researched for students receiving support through IDEA, the problem is there is not enough information determining the effectiveness of a student's 504 plan as it relates to their attendance (McGovern, 2015).

### **Purpose Statement**

The purpose of this quantitative study is to compare the attendance of students with a Section 504 plan to their non-disabled peers, in School District A, located in central Virginia. Students with a Section 504 plan was the independent variable, and their attendance rate was the dependent variable. The focus of a 504 plan is to support a student with disabilities, determine how the disability has a direct impact on their educational performance, and ultimately provide classroom-based accommodations. The accommodations provided through a 504 plan are a mechanism for lessening the influence of students' disability on their ability to learn and for enabling SWD to access the general education curriculum with their non-disabled peers. The researcher included students from a socioeconomically and racially diverse school district located in central Virginia. The student population consisted of 3,939 students.

### **Significance of the Study**

It is important to investigate the overall impact of a 504 plan and subsequent accommodations on student attendance. This research sought to determine if a student with a 504 plan was able to demonstrate success in attendance as compared to their non-disabled peers. Bateman (2017) found a strong positive correlation between students supported under IDEA in regards to their attendance rates and their academic and social performance while Morrissey et al. (2014) found a strong association between students' attendance rates and their social skill development.

The goal of The Rehabilitation Act of 1973/1974 and the AHCA in 1975 was to better serve SWD. A review of existing literature revealed gaps in attendance for students with 504 Plans (Bateman, 2017; McGovern, 2015; Morrissey et al. 2014). By conducting a study of this nature, the researcher may increase the empirical body of knowledge regarding the influence of



504 plans on student attendance and promote the degree to which school district administrators understand the relationship between 504 Plans and student attendance. School-based administrators can then use the findings to provide appropriate professional development opportunities for teachers who provide accommodations and modifications under a 504 plan. School-based administrators, special education staff, and teachers can also use the findings to help develop 504 plans to select the most appropriate accommodations or modifications as it pertains to attendance.

Regular student attendance has become an area of focus over the past few years in order for schools to achieve accreditation (VDOE, n.d.). Accreditation standards now include a section solely on student attendance. According to recent accreditation standards, schools will not earn full accreditation if 15% or more of their student body misses 10% or more (18+ days) of a school year (VDOE, n.d.). School administrators are responsible for not only increasing students' scores on a state standardized assessment but also ensuring their students attend school each day.

### **Research Question(s)**

**RQ1:** Is there a difference between the attendance of elementary school students with a Section 504 plan as compared to their non-disabled peers in the district?

### **Definitions**

1. *Accommodations* – Skalski (2010) described an accommodation as any form of change/support to the educational curriculum that allows the student with a disability access the general education curriculum
2. *Disability* - Sefotho (2015) identifies a disability for the field of education as a “physical or mental condition that limits a person's movements, senses, or activities, curtailing

participation in meaningful living.” (p. 1).

3. *Elementary School* – VDOE (2016) identifies elementary school as being students in Kindergarten through 5<sup>th</sup> grade.
4. *Excused absence* – A student has an unexcused absence if he or she is absent for either part of the school day or an entire school day, and the student’s parent provides school administrators with appropriate documentation. Examples of an excused absence may include, but are not limited to, the following: illness (including mental health and substance abuse illnesses), funeral, injury, legal obligations, academic suspensions, and religious observances (VDOE, 2016).
5. *Free and appropriate public education (FAPE)* – This term refers to services provided by the public school system that ensures all students are educated in a manner that is beneficial to them (McGovern, 2015).
6. *Least restrictive environment (LRE)* – The LRE is a mandate under IDEA requiring school districts to educate SWD with their non-disabled peers to the maximum extent possible, and in the event that school districts do not educate SWD with their non-disabled peers, they must provide a precise explanation of why a more restrictive setting is appropriate for SWD (Weber, Mawdsley, & Redfield, 2004).
7. *The Rehabilitation Act of 1973 (Section 504)* – Section 504 of the Rehabilitation Act of 1973 and its subsequent revision in 1974 prohibited discrimination against persons with disabilities in public schools (Zirkel & Weathers, 2014).
8. *Truancy* – Truancy is defined as a student who has an excused or unexcused absence from school. Students are truant if they accrue one or more unexcused absences during the school year (VDOE, 2016).

9. *Unexcused absence* – A student has an unexcused absence if he or she is absent for entire instructional day without permission and without providing notice within a three-day period of the absence (VDOE, 2016).

## **CHAPTER TWO: LITERATURE REVIEW**

### **Overview**

The purpose of this study is to examine the difference of attendance between elementary students with a 504 plan as compared to their non-disabled peers. Section 504 plans offer classroom teacher-directed support for a student with a diagnosed disability. The researcher used archival data from School District A, located in central Virginia, to investigate the effect of a 504 plan on student attendance. The content of Chapter Two includes a theoretical framework, related literature, and a summary.

### **Theoretical Framework**

Attendance is a key indicator of student success, academic progress, and social development. The school system plays a vital role in a student's academic, emotional and social development. Chronic absences from school can place students at risk for poor academic performance (Ehrlich, Gwynne, & Allensworth, 2018). Van Eck, Johnson, and Bettencourt (2017) found that chronic absenteeism was a significant problem in schools and students with high absenteeism rates were more likely to drop out of school, exhibit negative behaviors, demonstrate poor academic performance, and have fewer economic opportunities. Researchers also noted that student attendance was a predictive factor of academic achievement (Chang & Jordan, 2012; Chang & Romero, 2008; Van Eck et al., 2017). Students that are chronically absent in Pre-kindergarten and Kindergarten performed at a lower rate in 5<sup>th</sup> grade as compared to students that attended on a regular basis (Ehrlich et al, 2018).

The Office of Civil Rights concluded that nearly 7,000,000 K-12 students in 2015-2016 missed more than three weeks of school each year (Ehrlich et al., 2018). Across the country, school attendance is becoming the focus of conversation. School district leaders understand

when students do not attend school, they cannot learn, and when they do not learn, they cannot perform at the expected level (Van Eck et al., 2017). To support students, school districts are changing their policy on attendance and accreditation. Recent accreditation indicators for the Commonwealth of Virginia includes a section on attendance. If 15% of the students enrolled miss more than 10% of the school year (18 days), the school may lose accreditation in attendance (VDOE, n.d.).

A theoretical framework drives all aspects of a research study. The researcher used the following three theoretical frameworks in the present study: Bandura's social cognitive theory, Maslow's hierarchy of needs, and Vygotsky's social development theory. Bandura's social cognitive theory has broad applications yet can be attributed to student achievement and the need for modeling, student interaction, and imitation (Bandura, 1989). Maslow's hierarchy of needs addresses all students but is especially important for SWD. It is important that students have their basic needs met before one is able to access the educational curriculum (Bargerhuff, 2013). SWD typically are lacking in this area whether their lack of needs being met are perceived or actual (Bargerhuff, 2013). Finally, Vygotsky's social development theory focuses on a learning community through social interaction. Vygotsky (1978) also discussed the Zone of Proximal Development (ZPD) and its applicability in the context of human development. This theory makes a correlation between developing and thinking which is appropriate in discussing SWD (Bargerhuff, 2013).

### **Bandura's Social Cognitive Theory**

The central principle of Bandura's social cognitive theory, originally called Bandura's social learning theory, is that individuals learn from each other through modeling, observing, and imitating (Bandura, 1976, 1986). According to Bandura (1976), modeling is a highly effective

and influential instructional strategy that includes the following four components: attention, retention, reproduction, and motivation (Bandura, 1986). Attention is the process of children focusing on the model's actions; retention is the process of children remembering the behavior they observe; reproduction involves children replicating the behaviors the model demonstrates; motivation includes the intrinsic and extrinsic factors compelling children to either repeat a behavior or to not repeat a behavior (Bandura, 1976, 1986). Bandura underscored the influence that a model within the educational environment had on students. This influence is especially profound for SWD (Bargerhuff, 2013). SWD who attend school regularly, in an inclusive setting, and are able to receive support from a model can greatly increase their participation and attendance in school (Bargerhuff, 2013).

Bandura's social cognitive theory offers insight in attendance. An argument could be made that if students are not present in school, they will not receive the benefit from modeling or observation. The Commonwealth of Virginia has a set curriculum known as the Standards of Learning. The Standards of Learning were developed with the understanding that students learn through observing and participating in class. Students who are chronically absent do not receive core content instruction and are unable to demonstrate the same skills as students who are present and engaged in learning.

Bandura (1989) noted that models for children could be positive and negative. Positive models would encourage regular attendance whereas negative models would result in excessive absenteeism. Research indicates that by the third grade, students identified as being chronically absent often exhibit a lower than expected reading level and require an increase in intervention to be successful in school (Ehrlich et al., 2018). As a way to avoid the negative response, Bandura's social cognitive theory focuses on self-regulation. This is a behavioral technique

where the individuals can refocus themselves prior to deciding. The idea behind self-regulation is to give the student the time necessary to make an appropriate choice (Bandura, 1989).

A key notion to learning from others is the need to be present. Kahu, Stephens, Leach, and Zepke (2015) found there was growing interest in the field of education to research student engagement and attendance. Ultimately, the student's outcome such as achievement, satisfaction, and retention is linked to their attendance (Kahu et al., 2015).

### **Maslow's Hierarchy of Needs**

Maslow's hierarchy of needs (1942) involves a process in which an individual attempts to have his or her needs met at one level before moving on to the next level. A pyramid consisting of five levels, often represents this hierarchy. Schulte (2018) noted that the five levels are as follows: (a) physiological, (b) safety, (c) love/belonging, (d) esteem, and (e) self-actualization. The most basic of human needs are within the physiological (food, water, warmth, and sleep) and safety (security at home and school) levels (Schulte, 2018). The general idea behind the hierarchy of needs is when one area has been satisfied (i.e. physiological), the individual can move up to the next level—safety. It is not possible for an individual to move to the next level without first satisfying the requirements at his or her current level (Schulte, 2018).

Students are not able to perform up to their full potential if their basic needs are not met. Many factors influence students, and some are seen and some are not. It is important for educators to take into consideration Maslow's hierarchy of needs when teaching their students, especially SWD. Bargerhuff (2013) identified the importance of SWD being educated in an inclusive setting as they are more likely to feel part of the school and decrease potential truancy. Instruction in social skills and social interaction also supports SWD who have deficits in this area (Bargerhuff, 2013). Pufpaff, McIntosh, Thomas, Elam, and Irwin (2015) reported that more

and more students are being enrolled that have health care needs. Students with health care needs require extra support in the school system. These students often qualify for assistance under a Section 504 plan. Attendance becomes an area of concern and open communication with the school and health care providers is vital (Pufpaff et al., 2015). The idea behind Maslow's hierarchy aligns itself with this study, as students often require motivation as well as the faculty coalescing around them to support them and to meet their individual needs.

### **Vygotsky's Social Development Theory (Zone of Proximal Development)**

Vygotsky's social development theory also has implications to this study. Lev Vygotsky was a Russian psychologist whose social development theory was one of the foundations of constructivism. The major premise of constructivism is that learning is an active process and the learner must be present to participate (Vygotsky, 1978). In Vygotsky's social development theory, social interaction is a primary role in students' cognitive development. Students learn about, and interact in, their culture alongside their peers. Appropriate cultural practices are taught within the society (Daneshfar & Moharami, 2018). A primary source of development for students is their interaction within the culture (Daneshfar & Moharami, 2018).

One of the integral components of Vygotsky's social development theory is the ZPD. ZPD refers to the distance between an individual's developmental level and potential development (Vygotsky, 1978). The primary focus is on achievement. School localities have recognized the importance of student development. This development occurs when students are in school. When students attend school, they are able to learn and therefore live up to their potential development.



### **Related Literature**

The United States Department of Education reports that there are approximately 56,000,000 students enrolled within the public school system, 35,000,000 of whom are enrolled in Pre-K through grade 8. Of these students, 4,000,000 (11% of students Pre-K through 8<sup>th</sup> grade) have a disability that has a negative impact on their education (U.S. DOE, 2015). Students who receive support under Section 504 are not included in this 11% (Zirkel & Weathers, 2016). Nearly 43% (1,720,000) of these students are categorized as being learning disabled. Penney (2018) referred to a learning disability as a primary “deficit in a variety of psychological processes that affect certain areas of academic achievement, such as working memory and attention” (p. 198). Additionally, Penny noted that students identified as having a learning disability might also have a neurological disorder that makes it difficult for them to acquire the necessary skills to be successful in reading and mathematics. Approximately 8% (320,000) of students with learning disabilities are identified as having an emotional disturbance. Characteristics of students with an emotional disturbance involve a difficulty accepting redirection, trouble with change in the environment and otherwise inability to manage frustrations in an appropriate manner (Garabet, 2014). Students identified as having an emotional disability are more likely to be absent from school, either from suspension or refusal, as compared to their non-disabled peers (Garabet, 2014).

Finally, 1% (40,000) fall in the category of other health impaired, which is where attention deficit hyperactivity disorder (ADHD) or attention deficit disorder (ADD) would be identified (U.S. Department of Education, 2015). A student’s disability is identified upon the successful administration of the appropriate diagnostic assessment (U.S. Department of Education, 2015). Among professionals, the Vanderbilt ADHD Diagnostic Teacher Rating Scale

is the most widely used scale as it has been appropriately validated, is free to the public and is relatively easy to score (Bussing, Gagnon, Garavan, Ribuffo-Duggan, & Houchins, 2017). In addition to the teacher rating scale, there is also a 45-item parent rating scale. Upon completion of the rating scales by the teacher and parents, a trained psychologist or diagnostician will evaluate the results and determine if the student has a diagnosis of ADHD/ADD (Bussing et al., 2017).

The public school system has been charged with meeting the needs of all of their students. Over the past 50 years, legislation has been implemented to ensure the school system meets the needs of their students, regardless of their gender, race, or disability (Zirkel & Weathers 2016). The Rehabilitation Act of 1973 provided a more comprehensive definition of a disability and how it directly impacted a student in the educational setting. The Education for All Handicapped Children Act of 1975 was enacted to help ensure that students in the public school system were provided a FAPE alongside their non-disabled peers. The most well-known legislation is the IDEA of 1990 provided for appropriate regulations concerning the education support for students identified with a disability (Zirkel & Weathers, 2016).

SWD not only have academic impairments, which cause them to perform at a rate lower than their non-disabled peers, but they also struggle behaviorally, socially, and emotionally. Some of the challenging behaviors SWD exhibit include inattentiveness, poor organizational skills, and verbal and physical and verbal aggression (Flower, McKenna, Bunuan, Muething, & Vega, 2014). Verbal and physical aggression include behaviors such as “harassment, fighting, disrespect and defiance” (Flower et al., 2014, p. 550). Other behavioral concerns SWD can exhibit include speaking out of turn in class, getting out of their seat, leaving the classroom, and violating school-based or classroom-based expectations (Mathur, Jones, & Alazemi; 2015;

Spaulding et al., 2010). Students with social and emotional impairments/dysregulation exhibit deficits in their social competencies (Mathur et al., 2015). Furthermore, Mathur et al. (2015) reported that this lack of social and emotional regulation also has a negative impact into adulthood specifically on the development of adult relationships.

Harrison et al. (2013) noted that academic distress has a direct correlation to decreased student attendance. They also identified that the most frequent discipline problem among high school students was related to attendance. Recurrent absences or truancy is a key indicator that a student will not be successful in school. Research indicates that SWD experience high absenteeism/truancy (Chen, Culhane, Metraux, Park, & Venable, 2016). Additionally, truancy has been directly linked to deficits in social skills. Dembo, Wareham, Schmeidler, Briones-Robinson, and Winters (2016) noted that refusal to attend school is a psychological disorder resulting from “emotional distress or mental health problems such as general anxiety, social anxiety, somatic complaints, and depression that prevent the student from attending school” (p. 403).

It was not until 1973, with the passing of The Rehabilitation Act, that SWD were able to receive supports under Section 504. In the academic setting, Section 504 specifically relates to providing accommodations to students in attendance at educational institutions that receive federal funding. Zirkel and Weathers (2016) and Spiel and Evans (2014) noted that Section 504 accommodations are not required in private schools, unless private schools receive funding from the federal government. The classroom teacher implements accommodations that are outlined in a Section 504 plan. These accommodations help support the student access the general education curriculum with his or her non-disabled peers.

### **Section 504 plan vs Individualized Education Plan**

Students with an identified disability that has a negative impact on their education may have the right to receive supports through an IEP or a Section 504 plan. If a student is determined eligible under IDEA, the Local Education Agency and the parent/guardian may not also have supports under Section 504 (Zirkel & Weathers, 2016). The idea behind this is Section 504 plans provide accommodations for students. These same accommodations can be supported under an IEP. Zirkel and Weathers (2016) referred to students who qualify for a Section 504 plan, but not under IDEA as 504 only students.

### **Qualifications for a Section 504 Plan**

To meet the qualifications for an IEP under IDEA, a student must qualify under at least one out of 13 categories. The categories are as follows: IDEA (2004) autism, deaf-blindness, deafness, emotional disturbance, hearing impairment, intellectual disability, multiple disabilities, orthopedic impairment, other health impairment, specific learning disability, speech or language impairment, traumatic brain injury, or visual impairment (including blindness). In addition to qualifying under one of the 13 disabilities, there must be documented evidence that the identified disability has a significant impact on students' academic performance (Bateman, 2017).

In contrast, Section 504 does not contain a list of disabling conditions. ADAAA of 2008 provided a broad definition of what is identified as being a disability. Section 504 and ADAAA a student can be found eligible if he or she has (a) a physical or mental impairment that limits one or more major life activities, (b) a record of the impairment and (c) is observed as having an impairment (Martin, 2010; McGoverly, 2015). Civic Impulse (2018) outlines U.S. Code § 12102 by identifying major life activities as caring for oneself, performing manual tasks, seeing, hearing, eating, sleeping, walking, standing, lifting, bending, speaking, breathing, learning, reading, concentrating, thinking, communicating, and working. In the field of education, the

most common major life activity is in learning (Zirkel & Weathers, 2016). ADAAA provided an avenue for students to qualify for a Section 504 even if they were not eligible to receive an IEP under the regulations set forth by IDEA.

**Section 504 process.** It is the school's responsibility to identify SWD by conducting a series of tests and educational assessments (Smeets & Roeleveld, 2016; Smith, 2001). If teachers, parents, or other staff suspect a student may have a disability, they can refer him or her to the local school-based committee. The committee, also referred to as the gateway to special education, offers short-term supports to determine if the implementation of specialized instruction and individualized accommodations enable the student to access the general education curriculum (Soodak & Podell, 1993).

The school-based team consists of a select group of core members, which includes the school administrator, referring party, general education teacher, special education teacher, school counselor, and parents (VDOE, n.d.). If a student continues to demonstrate deficits after the implementation of specialized instruction and individualized accommodations, the school-based team will request an evaluation to determine if the tested student is eligible for either special education services or a Section 504 plan. If the student is eligible for services under IDEA or Section 504, then the team members meet and develop either an IEP or a 504 plan (Smeets & Roeleveld, 2016).

Smith (2001) noted that a 504 plan outlines how the student's disability will be supported in the general education classroom in the form of modifications or accommodations. These modifications/accommodations are student focused and directly relate to his or her disability (Green, Comer, & Donaldson, 2016). Once the plan is written, the team re-evaluates the student's progress on a yearly basis unless the parent or guardian requests otherwise. Each

school district appoints a case manager who oversees the re-evaluation procedure. The Commonwealth of Virginia requires that a parent/guardian participate in the initial 504 evaluation and implementation, but their participation is not required during the re-evaluation process (VDOE, 2009).

### **Common Disabilities Under a Section 504 Plan**

Qualifications for a Section 504 plans are not restricted to certain disabilities to provide students with necessary accommodations. The student's disability must negatively impact his or her ability to access the general education curriculum by attendance, academic performance, or behavior (Smith, 2001). The absences associated with the disability limit the student's ability to perform in school in the same manner as his or her non-disabled peers (Soodak & Podell, 1993). The accommodation levels the playing field for the student, thereby giving the student the same opportunities as his or her peers. The following are some of the disabilities, conditions, or diseases under which a student may qualify for a 504 plan: attention deficit hyperactivity disorder (ADHD), autism, diabetes, asthma, dyslexia, anxiety, and food allergies.

**ADHD.** Attention deficit hyperactivity disorder (ADHD) is one of the most commonly diagnosed mental health disorders among children in the United States (Pastor, Reuben, Duran, & Hawkins, 2015). Researchers found that 11% (6,400,000 students) of school-age students are diagnosed with ADHD (Owens & Jackson, 2017; Pastor et al., 2015). Of this percentage, 4.9% (3,125,000 students) are elementary students (Pastor et al., 2015). Visser et al. (2015) reported that the percentage of students diagnosed with ADHD has increased between 3% and 6% since 1997. They attributed this increase to the accessibility of mental health professionals and the general population's awareness of the symptoms associated with ADHD. Bauemeister et al. (2007) found that boys were diagnosed with ADHD approximately two times more frequently

than girls. In 2015, the U.S. Department of Health and Human Services noted that of the students diagnosed with ADHD, 11.5% were White, 8.9% were Black, and 6.3% were Hispanic.

According to Visser et al. (2015), the potential negative consequences of ADHD include negative peer relations, inattentiveness, and poor academic performance; however, ADHD can be successfully treated through medication, dietary changes, and behavioral therapy. Cortiella and Kaloi (2010) indicated that students with ADHD who received treatment in the form of behavioral therapy or medication would qualify for a 504 plan if their academic progress would be negatively impacted without the support of therapy or medication.

Children with ADHD often experience difficulties focusing and completing assignments during school. ADHD affects the prefrontal cortex of the brain. The prefrontal cortex is often referred to as the mechanism through which a person regulates his or her thoughts and interacts with others. DuPaul, Gormley, and Laracy (2014) referenced the *Diagnostic and Statistical Manual of Mental Disorders - Fifth Edition (DSM-5)* and identified three target areas for students with ADHD: behavior, relationships, and hyperactivity. A student's behavior can be manifested by inattentiveness, inability to concentrate, and at times, verbal and physical aggression. DuPaul et al. reported that students with ADHD disrupt the classroom environment and inhibit learning for themselves and their peers. The second area is relationships with peers, teachers, and other school staff members. DuPaul et al. found students with ADHD exhibited poor social skills isolation from their peer group creating maladaptive development of interpersonal skills. The third area is hyperactivity. Students who are hyperactive cause distractions in the classroom setting and require behavioral interventions (DuPaul et al., 2014).

Bauemeister et al. (2007) found that students with ADHD were more likely to receive a suspension from school than their non-disabled peers. This had a greater impact on boys as they

had a greater risk of being diagnosed with ADHD than females. Fried et al. (2016) concluded that students with ADHD had a greater risk of being retained or dropping out of school when compared to their peers without ADHD.

Owens and Jackson (2017) believed that early identification of ADHD was critical to students' academic success. This identification would allow the student to receive accommodations through either an IEP or a 504 plan. Owens and Jackson further noted that early identification was an effective mechanism for involving the families of students with ADHD as family members could support students within the home setting by providing structure, pharmacological interventions, and behavioral therapy and developing healthy eating habits. Researchers identified appropriate accommodations for students with ADHD (Lovett & Leja, 2013; Owens & Jackson, 2017). Although this is not an all-encompassing list, they have proven to be beneficial for students; they are as follows: Testing accommodations, extended time to complete a task, assistance with directions and ability to take breaks. Testing accommodations can include modifying the test format (fewer test items) or allowing the student to complete a test in a small-group setting. Extended time to complete an assignment is another appropriate accommodation for students with ADHD (Lovett & Leja, 2013). Students with ADHD who have extended time as an accommodation are able to fully process the expectations for an assignment. Environmental modifications can include preferential seating (close proximity to teacher), noise-canceling earphones, and different lighting within the instructional setting (Owens & Jackson, 2017).

**Autism.** Researchers referred to autism spectrum disorder (ASD) as one of the most common neurodevelopmental disorders (Campisi, Imran, Nazeer, & Wagner-Azeem, 2018; Lord, Elsabbagh, Baird, & Veenstra-Vanderweele, 2018). Thapar, Cooper, and Rutter (2017)



described neurodevelopmental disorders as a complex condition involving a disruption to the brain development. The most notable characteristic that students with ASD exhibit involves social development and communication. Students with ASD also exhibit repetitive behavioral patterns and focused interests that may be problematic in an academic setting (Campisi et al., 2018; Lord et al., 2018). Dworznski, Ronald, Bolton, and Happe (2012) found children with ASD had deficits in communication and demonstrated repetitive behaviors and interests. Campisi et al. (2018) reported that 1 out of 68 school-age children received an autism diagnosis. This represents an increase of approximately 30% in the number of children diagnosed since 2012 (Campisi et al., 2018). Campisi et al. (2018) and Lord et al. (2018) attributed this increase to a greater awareness of the symptoms associated with ASD.

ASD does not have one single identifying feature. ASD includes a spectrum of behavior that is categorized under the autism diagnosis (Campisi et al., 2018). Dworznski et al. (2012) found that boys were more likely than girls to meet the criteria for ASD. In the case of high-functioning autism, the ratio comparing boys to girls is as high as 10:1. Campisi et al. (2018) noted that although more boys were diagnosed with ASD than girls, girls exhibited more severe impairments than boys. Heejoo et al. (2015) noted that the prevalence of ASD among White students was higher than it was among either Black or Hispanic students. Typically, White students were diagnosed at around age five whereas Black and Hispanic students were not diagnosed until age seven (Heejoo et al., 2015).

There are many ways to support students with ASD in the school setting. Lord et al. (2018) referenced behavioral interventions through a behavioral plan as being the most common. A behavior plan is utilized to prompt or redirect students with ASD toward a desired task or

activity. Social skills groups, behavior groups, and pharmacological interventions are other supportive resources for students with ASD (Lord et al., 2018).

**Diabetes.** Diabetes is a disease that inhibits the body's ability to produce or respond appropriately to insulin (Diabetes Mellitus, 2018). Ambreen, Sharif, Zahoorullah, and Ahmed (2018) suggested that diabetes is one of the most common, non-communicable disease impacting the entire world is “fourth leading cause of death for high-income countries” (p. 109). Ambreen et al. stressed that individuals with diabetes need constant care to avoid complications. Without proper care, individuals with diabetes have an increased risk of developing the following health-related issues: “coronary heart disease (plaque buildup on arteries), cerebrovascular disease (limits blood supply to the brain), retinopathy (impact to eyes) and neuropathy (nerve pain)” (Ambreen et al., 2018, p. 109).

Diabetes is one of the most chronic diseases impacting school-age children (Jackson et al., 2015). Jackson et al. (2015) estimated that nearly 200,000 K-12 students have type 1 diabetes. Students with diabetes need a comprehensive medical plan, which involves the administration of insulin, specialized diet, documentation of symptoms for low blood sugar/high blood sugar, physical activity, and an emergency plan. The primary goal for the school and parents is for students to become independent in providing their own care. This helps prepare the student to be autonomous during adulthood (Jackson et al., 2015). Part of the autonomy is identifying the warning signs for high/low blood sugar and taking the necessary steps to remedy the situation.

Students with diabetes who receive support under a Section 504 plan would receive accommodations from the classroom teacher and the school nurse. Abozaid (2015) reported that the school nurse is an important connection between the student and their family, teacher and

hospital. The school nurse can support the student's diet, medication regimen and assess insulin levels through the day. Researchers identified consequences for untreated diabetes, including cognitive dysfunction, lethargy, hospitalization, or even death (Abozaid, 2015; Aron, Tseng, Soroka, & Pogach, 2018). In 2015, there were 252,806 deaths from complications of diabetes (American Diabetes Association, 2018).

**Asthma.** Asthma is a breathing condition that causes an individual's airways to narrow and creates an increase in the production of mucus. This disability can inhibit normal breathing as evidenced by shortness of breath, wheezing, or coughing. Stridsman, Dahlberg, Zandren, and Hedman (2017) noted that asthma is a chronic disease that impacts people of all ages, and there are approximately 300 million people in the world diagnosed with asthma. More than 10 million students are diagnosed with asthma before the age of 18, and 3,000,000 of these students have had one or more severe asthma attacks (Engelke, Swanson, & Guttu, 2014; U.S. Department of Education, 2018).

Stridsman et al. (2017) believed that asthma has an impact on school absenteeism, thereby impacting the ability of students diagnosed with the condition to attend school and to access the general education curriculum. These students are less likely to master concepts and to earn passing grades in their classes than their peers. Almqvist, Worm, and Leynaert (2008) found there were no significant gender differences in the prevalence of asthma among school-age children; however, they indicated that "females often have greater difficulty managing symptoms, which the authors attributed to hormonal changes they experienced in puberty" (p. 47).

Stridsman et al. (2017) recommended students in school maintain frequent contact with the nurse/health care professional as an asthma attack can be brought through physical activity,

dusty environments or areas that are not well ventilated. Gould, Perzanowski, Evans, and Bruzzese (2018) supported this recommendation and reported that elementary students had a greater risk of being diagnosed with asthma as well as experiencing greater complications because of an asthma attack when compared to middle and high school students. They believed this was due to their undeveloped respiratory system. Although anyone can be diagnosed with asthma, Gould et al. and Engelke et al. (2014) found that children living in poverty were 17 times more likely to require emergency room support or hospitalization for an asthma attack than students living in affluent areas. They attributed this discrepancy to living situations and an excess amount of dust or dander, a lack of parental education about asthma, limited access to support from a primary physician.

Engelke et al. (2014) noted that untreated asthma can result in severe respiratory ailment or even death. School-based support focuses on establishing a school-home communication and developing a comprehensive health plan with the school nurse. Engelke et al. (2014) reinforced the importance of having a plan in the school to support a student in the event that they were to have an asthma attack as well as a care plan following the incident. With an appropriate plan in place, students can be provided the necessary material/assignments so they can be completed in the student's absence.

**Dyslexia.** Dyslexia is defined as “a problem with a component of spoken language, phonological processing: that is, getting to the elemental sounds of speech, affecting both spoken and written language” (Ferrer et al., 2015, p. 1121). Handler (2016) noted that characteristics of dyslexia included difficulty sounding out words and difficulty fluently reading and comprehending text. Handler further noted that dyslexia is not only a developmental disorder but also the most common neurobehavioral disorder in children. Dyslexia is also the most

common learning disability, with between 17% (8,330,000 students) and 21% (10,290,000 students) of public school students affected by the disability (Ferrer et al., 2015; Handler, 2016). Many students with dyslexia are undiagnosed, thereby negatively impacting their academic achievement. Ferrer et al. (2015) concluded that students with dyslexia read at a lower level than their non-disabled peers. Students with dyslexia also have difficulty making connections between what the teacher says and what they hear. Despite its negative impact on students' academic achievement, a diagnosis of dyslexia does not have a direct impact on students' intelligence quotient. Handler (2016) reported that individuals diagnosed with dyslexia had an intelligence quotient level from the low to normal range and from the normal to high intelligence quotient range. Handler further noted that individuals diagnosed with dyslexia are sometimes perceived as being lazy. However, Handler found that individuals diagnosed with dyslexia often work harder, longer and at an increased rigor as compared to their non-disabled peers.

Handler (2016) underscored the importance of educating students diagnosed with dyslexia in a small-group setting, generally with five or fewer students. By providing instruction in a small-group setting, the teacher has an opportunity to instruct each student at his or her identified level and to focus on phonemic awareness, phonics, fluency, vocabulary, and comprehension. A course of study should be developed to support students diagnosed with dyslexia. This support should include accommodations to promote critical thinking and reasoning (Handler, 2016). Handler (2016) encouraged the use of assistive technology, word processors with spell check capabilities, extended time on assignments, preferential seating and a quiet classroom environment as possible modifications and accommodations to promote the optimum learning environment.

**Anxiety.** Approximately 30% (16,800,000) of school-aged students are diagnosed with an anxiety-related disorder before the age of 18 (Green et al., 2016). “Anxiety refers to the brains response to danger, stimuli that an organism will actively attempt to avoid” (Beesdo, Knappe, & Pine, 2009 p. 483). Students who are diagnosed with an anxiety-related disorder can become maladaptive when the degree to which they experience the symptoms associated with the disorder is such that they cannot complete day-to-day activities. The physical and somatic symptoms these students experience include sweating, rapid breathing, headaches, muscle aches, and fatigue (Beesdo et al., 2009; Finning et al., 2019). Students who experience the physical and somatic symptoms often avoid attending school to decrease their anxiety (Finning et al., 2019). Researchers also found that anxiety had a negative effect on students’ social functioning skills and their academic performance (Green et al., 2016). Students diagnosed with anxiety-related disorders need supports and accommodations to be successful in school. School personnel should focus on alleviating symptoms for students with anxiety-related disorders by providing them with the supports and accommodations they need to be successful in school. Green et al. (2016) noted that providing a break from the classroom and giving extended time on assignments were appropriate accommodations for decreasing the symptoms students with anxiety-related disorders experienced and for reducing the prevalence of school avoidance among these students.

**Food allergies.** Food allergies affect nearly 5.1% (2,856,000) of the school-age population (Iweala, Choudhary, & Commins, 2018). Cow’s milk, eggs, wheat, and peanuts are the most prevalent food allergies (Iweala et al., 2018). Furthermore, Iweala et al. (2018) reported that the vast majority of these items are served in schools every day. Many individuals develop allergies as young children and grow out of the allergy, as they get older. Most allergic reactions

are minor, yet some can be life threatening. Iweala et al. (2018) discussed life- threatening reactions as those involving “respiratory and/or cardiovascular distress” (p. 16).

Students with food allergies/complications make public school complicated, for the school as a whole. Administrators, teachers, and students need to be aware of what the student comes in contact with, and in the event of an emergency what interventions are needed. Iweala et al. (2018) reported there is not any current Food and Drug Administration therapy that has been approved for treatment as a preventative measure. Therefore, it is imperative that students avoid the items to which they are allergic and that students and their parents provide an epinephrine device, as authorized by their primary care physician, and that the device is always available. Accommodations in the school setting would involve a health plan through the school’s clinic.

The school nurse/health assistant would support the student in ensuring they have an appropriate menu for the day and are prepared with an emergency plan in the event of an exposure to a food allergy. Additional support is in the form of education for the classroom teacher and any other adult who may supervise the student. By receiving this additional support, teachers and support personnel increase their capacity to support the student throughout the day (Iweala et al., 2018).

### **Student Attendance**

School districts receive direction from the state in which they reside for rules and regulations as it relates to attendance. Although attendance rules can vary from state to state, the general idea behind this law is to ensure students achieve a certain academic level. It is the perception that this academic level can be attained through regular attendance. Regular school attendance also directly relates to students’ personal development, emotional development,

student performance, and sense of belonging (Stempel, Cox-Martin, Bronsert, Dickenson, & Allison, 2017; Van Eck et al., 2017). Students who attend school regularly have a greater sense of ownership and connection to the school as a whole (Morrissey et al., 2014). This sense of belonging serves as a motivator for the overall success of the student.

School attendance is the leading indicator of academic performance and social engagement. However, during the 2013-2014 school year, one in seven U.S. students missed at least 15 days or more (U.S. Department of Education, 2016). Student attendance is a necessary part of their social-emotional development. Stempel et al. (2017) and Skedgell and Kearney (2016) noted that approximately 14-15% (7,350,000) of students are chronically absent or truant each year. Van Eck et al. (2017) and Stempel et al. (2017) defined chronic absenteeism as missing 10% or more days of school in a single school year. Stempel et al. reported that chronic absenteeism was increased in neighborhoods that had excessive violence and in homes where family members experienced substance abuse. They indicated that although this could happen in any neighborhood, chronic absenteeism was more likely among students who resided in low-income neighborhoods than it was among students who resided in middle- and upper- income neighborhoods.

### **Definition of Attendance**

Attendance is based on the VDOE 2018 policy, which grants local school boards the authority to develop their policy on student attendance. In the Commonwealth of Virginia, the school year consists of 180 academic days. The school board policy from School District A indicates if a student misses 5 unexcused day in a semester, then he or she has a conference with a school administrator (each school year consists of two semesters). If a student has missed 7 unexcused days, then the school refers the student to the department of student services, and if a



student misses 15 or more unexcused days, then he or she is subject to administrative review and to a possible alternative school placement.

School District A has assigned a truancy officer to each school. In addition to maintaining attendance logs on a daily, the truancy officer makes every attempt to support the student and his or her family. Prior to any disciplinary hearings or consequences, the school district tries to meet the needs of the student's family and identify areas of concern to ensure the student attends school regularly.

Information derived from School District A's policy on attendance has identified that attendance in the elementary level shall be documented daily. The policy also notes students who do not complete at least one-half of the school day will be counted as being absent. In this study, the researcher investigated the effectiveness of Section 504 plans on elementary students' attendance. The researcher used archival data from School District A and focus on students in elementary school. For the purpose of this study, the term *elementary school* includes students in kindergarten through 5th grade.

### **VDOE regulations for Attendance**

The Commonwealth of Virginia has outlined attendance regulations that mandate every student age 5-18 to attend school. The schools must provide these students FAPE up to the age of 21 (VDOE, n.d.). Although the law regarding attendance is developed at the state level, the individual localities are charged with developing, implementing, and enforcing attendance regulations. Each school within the School District A employs an attendance clerk who is charged with maintaining attendance records for the students and contacting a student's family if they are chronically absent.

## Truancy

In recent years, truancy has been identified as one of the top 10 problems facing the field of education (Wroblewski, Dowdy, Sharkey, & Kim, 2019). Students that are frequently truant often is an indicator for future delinquency. In the United States, schools are required to report their attendance rates as a way of discussing their Adequate Yearly Progress (Wroblewski et al., 2019). Truancy is defined as frequent or prolonged lack of school attendance (Havik, Bru, & Ertesvag, 2015). The VDOE defines truancy as any unexcused absence from school (VDOE, n.d.). Furthermore, the VDOE distinguishes a truant student from a student who is chronically truant. A chronically truant student is one who misses 10% or more of the school year (VDOE, n.d.).

The VDOE identifies a student as being truant if they have accrued one or more unexcused absences (VDOE, n.d.). Havik et al. (2015) noted that absences were common, and approximately 20% of non-school attendance was unexcused. Therefore, these unexcused absences fall under truancy. Mallett (2015) defined truancy as a habitual, unexcused absence from school that exceeds the allotted number of days set by the state law. These laws vary by state, but they all include an age at which the student must start school, the minimum age they can drop out as well as the number of unexcused absences a student may incur prior to being identified as truant. The code of Virginia § 22.1-254 requires all students ages 5-18 to attend school. The law provides for other exemptions, for students missing school, that fall under the area of religion.

Wroblewski et al. (2019) identified that African American and Hispanic elementary students are at the highest risk of truancy as compared to students from other ethnic groups. Stempel et al. (2017) and Staudt (2014) suggested that students with frequent truancy primarily

reside in single-parent households; they were born to teen parents and parental supervision is at a minimum. This lack of supervision and guidance translates into indifference or a general disconnection toward their education.

Cook Dodge, Gifford, and Schulting (2017) reported that truancy and frequent unexcused absences in elementary school is a reliable gauge of continued truant behavior in middle school and high school. Additionally, chronic truancy in kindergarten through 12th grade is a strong indicator that the student will not attend college or trade school. Researchers concluded that parents were responsible for truancy among elementary-age students and that parents who were actively involved in their children's education promoted not only their children's school attendance but also their children's academic achievement (Havik et al., 2015; Lazurus, 2006; Lee & Bowen, 2006; Sheppard, 2005).

### **Reasons Students Miss School**

There are many reasons students experience high absenteeism or truancy. Wroblewski et al., (2019) reported that upwards to 11% of students admitted to simply skipping school, at least one time, because they did not want to attend. On the contrary, Havik et al. (2015) noted that students disengage from school because they experienced low levels of both academic and social support. The highest indicator for truancy is poor academic performance (Wroblewski, et al. 2019). Students who do not experiencing academic success or fail to make friends become disengaged. Students with a disability have increased risk of disengaging and being chronically absent from school (Roeleveld, 2016; Smith, 2001). Reid (2008) discussed the notion of generational truancy wherein students who were truant would become parents who allowed their children to be truant. Therefore, it would be difficult for a student who desired to attend school to do so if their parents were indifferent about them attending school.

**Parental involvement.** Havik et al. (2015) and Lazarus (2006) reported that parental involvement in the educational process is directly related to a student's academic and social success. The city in which School District A resides has a poverty rate of 24.3%, and of the 8,500 students, 60.7% of them are from economically disadvantaged backgrounds.

Economically disadvantaged is defined as being eligible for free or reduced meals, receiving temporary assistance for needy families, eligible for Medicaid or identified as being homeless (Havik et al., 2015). Havik et al. (2015) indicated that the parents of students who live in a low socioeconomic status are less involved in school and therefore the students become disengaged. A primary reason for this disengagement is parental work conflict, lack of transportation, or criminal records restricting attendance to public school (Havik et al., 2015). Cook et al. (2017) found students had a positive school experience when their parents took an interest in their education regardless of their family's social situation. This involvement took the form of helping with schoolwork, attending field trips or making frequent visits to school. In their same study, children that had parents that were not involved had been found to have a higher rate of truancy and risk of dropping out.

**Teacher classroom management.** A teacher's classroom management strategies are predictive factors of a student's desire to come to school. Havik et al. (2015) and Lazarus (2006) reported that a teacher's classroom management or lack thereof, influences a student's truancy rate. Havik et al. (2015) further noted that a teacher's appropriate classroom management promotes a positive relationship between the students and is a leading indicator in the prevention of bullying. Furthermore, Havik et al. (2015) noted that the unpleasant or possibly threatening experience within the classroom negatively motivates a student to miss additional days of school.

On the other hand, classrooms in which teachers appropriately structure activities, manage maladaptive behaviors as they occur and provide a safe space for students to learn, promote a positive feeling and thus reduces truancy. Students require a classroom that is geared to learning and success. Lazarus (2006) referred to this thought as providing a level of predictability that a student can expect. Lazarus (2006) indicated that this predictability or structure is necessary to create an optimal learning environment.

Finally, the teacher-student relationship is also a factor in student attendance. Havik et al. (2015) reported that a positive relationship between the student and their teacher has a direct correlation to positive school attendance. A supportive relationship reduces the overall stress experienced in school and promotes positive ideals about school. Havik (2015) and Lazarus (2006) noted that a student's positive outlook about school has an impact on their overall academic performance. Therefore, a teacher's relationship with their students also increases the students' interest in academics.

**Bullying.** Safety in school is an important aspect of school attendance. If students do not feel safe, they are at an increased risk of being truant or chronically absent. Bullying is a word that is frequently used as a way of describing students being mean to each other. Bullying is a complex term that affects both children and adults (Rettew & Pawloski, 2016). Wang et al. (2014) defined bullying as an “unwanted aggressive behavior that is intentional, repetitive, and involves an imbalance of power between two or more individuals” (p.361); conversely, Graham (2016) defined bullying as “physical, verbal, or psychological abuse of victims by perpetrators who intend to cause them harm” (p. 136). Both definitions refer to an unwanted interaction. In the school setting, bullying includes but is not limited to name calling, physical aggression,

excluding individuals from participating in activities, manipulation, spreading rumors and damaging another student's possessions (Wang et al., 2014).

Wang et al. (2014) found that 30% of students have been a victim of bullying, and of these students, 8-10% are bullied daily. Bullying is a problem that affects every school in America. As a way of counteracting bullying, schools are adopting evidenced based programs to teach students and families' social and emotional skills that they are often lacking (Mallett, 2016). Other benefits of these programs is that students are taught how to react toward a bully and where to seek appropriate support. As a result of these programs, the rate of bullying in America's schools is declining (Rettew & Pawloski, 2016). Despite the decline in bullying, its effects can cause long-term psychological or health problems (Rettew & Pawloski, 2016).

**Cyberbullying.** As technology advances, the avenues for bullying also evolve. Cyberbullying is a deliberate act in which an individual or a group of individuals use electronic means to engage in intentional and aggressive behavior against another individual (Hoff & Mitchell, 2009). The problem students, parents, and administrators encounter when dealing with cyberbullying is the ability of the perpetrators of cyberbullying attacks to remain anonymous and to evade any forms of consequences for their actions (Hoff & Mitchell, 2009). Researchers note traditional forms of bullying differ from cyberbullying (Grinshteyn & Yang, 2017). Specifically, students who are victims of traditional forms of bullying experience a reprieve in their home settings whereas students who are victims of cyberbullying do not experience a reprieve in their home settings because they have access to various forms technology in those settings (Grinshteyn & Yang, 2017). Researchers found that 56% of students were victims of cyberbullying (Hoff & Mitchell, 2009). This is nearly double the percentage of students who experienced traditional forms of bullying (Grinshteyn & Yang, 2017; Wang et al., 2014).

**Mental health.** Researchers found that 30% of students were diagnosed with at least one mental health disorder by their adolescence (Sanchez et al., 2018). Dembo et al. (2016) noted that students with mental health diagnosis are often characterized as school refusers or are chronically truant. Dembo et al. noted the most common mental health diagnoses include “mood disorders such as depression and dysthymia; anxiety disorders such as generalized anxiety, separation anxiety, and panic disorder; and disruptive behavior disorders such as oppositional defiant, attention deficit hyperactivity disorder (ADHD), and conduct disorders” (p. 403). They also concluded that students identified as at-risk had an increased likelihood of experiencing emotional and psychological problems. Dembo et al., (2016) identified that students categorized as emotionally disturbed are at a high risk of truancy or excessive absenteeism.

Today, children spend more time in school than in other settings, and schools are responsible for providing their students with more than core content instruction. Fazel, Hoagwood, Stephan, and Ford (2014) indicated that the school system has a key role in a child’s development in the areas of social interaction, educational attainment, emotional control, and behavioral. Each of these areas has a direct impact on the student’s mental health. School systems support students struggling with mental health, or students with mental health challenges by employing school counselors. School counselors are able to work in the school setting and support students with emotional/behavioral struggles. Fazel et al. (2014) identified that students with diagnosed psychiatric disorders are at risk of educational failure. Students diagnosed with psychiatric disorders may experience outbursts or other tantrums that require interventions outside of the classroom (Fazel et al., 2017). In these cases, it is imperative that these children receive mental health supports to overcome these outcomes. The school’s guidance counselor is able to provide an initial level of support to students by providing them with strategies to help

them overcome their frustrations. Fazel et al. promoted the use of mental health services in school by indicating they provide a “continuum of integrative care that can promote health, mental health, and educational attainment” (p. 382).

**Socioeconomic status.** Van Eck et al. (2017) found that students living in poverty were three times more likely to be chronically absent from school. Van Eck et al. described a person living in poverty as someone receiving government assistance. Students identified as homeless, have housing instability, or are charged with caring for younger siblings are also at risk of being truant. Furthermore, students living in poverty that also have an illness are at a significant risk of frequent absences or truancy (Balfanz & Byrnes, 2012; Chang & Jordan, 2012; Chang & Romero, 2008; Van Eck et al., 2017). Researchers further noted that the majority of students diagnosed with ADHD were from low socioeconomic backgrounds (Owens & Jackson, 2017).

Chang and Romero (2008) noted that a common misconception regarding truancy is that it solely impacts secondary school. They found that the absentee rate of kindergartners was similar to that of ninth-grade students and that 1 in 10 kindergartners missed 10% or more of school each year. Chang and Romero also concluded that students who were chronically absent in kindergarten had low academic performance levels when they reached the 5th grade. Cook et al. (2017) reported that the negative impacts of high absenteeism on cognitive development were increased for students of lower socioeconomic status. Mallett (2016) stated,

Truancy is a problem for many students, but disproportionately impacts vulnerable and already at-risk children and adolescents. Thus, those who are truant are at significant risk for developing additional difficulties—poor academic performance, delinquency, school dropout, employment problems, and earlier and increased substance use and abuse, among others. p. 337).



**Behavior.** SWD are often exhibit behavior that is not appropriate for the classroom setting. These behaviors distract themselves as well as the students around them. Research indicates that SWD are at a greater risk of receiving office disciplinary referrals as compared to their non-disabled peers (Fried et al., 2016). Of these students, those diagnosed with ED and Other Health Impaired are reported as being assigned to in-school suspensions or being placed on out of school suspensions (Morgan et al., 2019). Attendance in school is important for every student, especially SWD. SWD often require additional support to access the general education curriculum as compared to their non-disabled peers. This coupled with an out of class suspension further widens the gap of learning/understanding. When SWD are removal from the classroom this further creates a detachment and places these students at a higher risk of becoming truant or dropping out altogether (Fried et al., 2016).

### **Negative Impacts of Poor Attendance**

Van Eck et al. (2017) and Balfanz and Byrnes (2012) found a direct link between high levels of absenteeism and poor academic performance. They recommended that schools implement strategies to encourage student attendance. Morrissey et al. (2014) noted that students who were absent from school lost the benefit of teacher-based lessons and other learning activities designed to foster their learning. This absence not only affects the student but also the school as recent accreditation standards include attendance as a determinant of a school's accreditation status. Morrissey et al. (2014) reported that attendance in school during the elementary school years is a predictor of future academic success.

Morrissey et al. (2014) and Balfanz and Byrnes (2012) noted that for students to succeed they need to attend school each day. Van Eck et al. (2017) and Cook et al. (2017) indicated that chronic or repeated absenteeism is a predictor of low grades, poor test scores, retention, school

disengagement, social delinquency, possible substance abuse, expulsion, and increased susceptibility to school dropout. Furthermore, Gotfried (2017) identified that students who are excessively absent or truant score lower on state standardized assessments, have a higher risk of being retained or dropping out, have increased behavior problems and are at a higher risk of using or abusing alcohol/drugs. Wroblewski et al. (2019) noted that truant students often come from homes with a lack supervision during after school hours. This reduced supervision provides an opportunity for the student to engage in delinquent and sometimes illegal behavior. Gotfried (2017) suggested that students who were excessively absent or truant had fewer future employment opportunities than those students who attended school on a regular basis. Van Eck et al. (2017) noted that other students are also harmed by those who are chronically truant as teachers need to spend additional time when they are present addressing their learning needs.

Balfanz et al. (2012) found that students who resided in low-income households had an increased likelihood of exhibiting poor academic achievement. Attendance is the primary reason for their poor academic performance. Morrissey et al. (2014) also noted that poor attendance was a predictive factor of poor academic performance, specifically for SWD. Researchers found that students with poor attendance were more likely to have difficulty making and maintaining friends and to avoid social situations (Cook et al., 2017; Havik et al., 2015; Lazarus, 2006). Stempel et al. (2017) concluded that students who were chronically absent were at risk of dropping out or experiencing other negative outcomes.

### **Summary**

SWD need additional supports to access the general education curriculum. The Rehabilitation Act of 1973, a civil rights law, provided protection and prohibited any discrimination against individuals with disabilities. A part of the Rehabilitation Act of 1973 is

Section 504. Section 504 directly supports students in the academic setting. SWD require supports in place to help them be successful. Supports include accommodations, modifications, preferential seating, behavior plans, assistive technology, and additional time to complete assignments (Cook et al., 2017; Havik et al., 2015; Lasarus, 2006). These supports and accommodations will allow SWD to achieve success in school and access the general education curriculum. A 504 plan provides these needed accommodations. A 504 plan is a teacher-implemented support that provides integral accommodations/modifications the SWD requires to access the general education curriculum with their non-disabled peers. Accommodations and modifications outlined within a student's 504 plan must be student focused and geared to meet his or her individual needs (Cook et al., 2017).

Truancy is an area of concern that presents challenges to teachers, parents, and students (Wroblewski et al., 2019). Student attendance is an integral part of the educational process as it promotes student learning and success, especially for SWD. Stempel et al. (2017) and Skedgell and Kearney (2016) reported that in the United States, there is a disproportionately high percentage of students who are chronically absent, with percentages ranges from 14% to 15%. These absences are equivalent to 15 days or more during the school year. They continue by noting that truancy is directly linked to a variety of social problems such as internalizing and externalizing behavioral disorders, reduced academic performance, low reading levels, and potential grade retention (Skedgell & Kearney, 2016). Mallett (2015) noted that truancy was a predictive factor of increased dropout rates, delinquency, and employment problems.

Havik et al. (2015) found a direct relationship between truancy and both delinquent behavior and juvenile crime among school-age youth. Without the structure and support, students learn maladaptive skills that negatively affect them, as they get older. There are many

reasons for students to be truant, some of which directly relate to a disability. Mallett (2016) and Morrissey et al. (2014) identified key areas to support students who are truant. The first area is ensuring that the environment is safe and well organized, second is to ensure teacher-student and student-student relationships are positive. The third area deals with identifying potential learning delays and providing the student with a differentiated way to access the general education curriculum.

Differentiation deals with making changes to the curriculum so that all students have access to it. By nature, teachers differentiate their lessons to support the needs of all of their students (Geenlan, Christie, Mills, Keddle, & Renshaw, 2015). The fourth and final area is to have mental health providers identify any unmet mental health needs. The school's guidance program is the initial level of support to try to address the student's needs. School systems collaborate with community mental health agencies to support the students and their families when the problem goes outside the scope of expertise for the guidance program. The classroom teacher can address the first two areas, yet the third and fourth areas require support from other professional in and out of the school system, often through an IEP or Section 504 plan.

Although the intent behind 504 plans were to serve all SWD, Zirkel and Weathers (2016) noted a disparity in the numbers of students based on gender and race that receive this support. Their calculations reported, that of the total population, more boys are supported through a Section 504 plan as compared to girls. Furthermore, following the same pattern, more White students receive support from a Section 504 plan when compared to minority students (Zirkel & Weathers, 2016).

## CHAPTER THREE: METHODS

### Overview

The purpose of this study is to examine the difference of attendance between elementary students with a 504 plan as compared to their non-disabled peers. Section 504 plans offer teacher-directed support for a student with a diagnosed disability. This researcher used archival data from School District A, located in Central Virginia, to investigate the effect of a Section 504 plan on student attendance. The content of Chapter Three includes a description of the study's design, research questions, hypothesis, participants and setting, instrumentation, procedures, and data analysis.

### Research Question

This researcher answered the following research question:

**RQ1:** Is there a difference between the attendance of elementary school students with a Section 504 plan as compared to their non-disabled peers in the district?

### Hypothesis(es)

In addressing the research question, the researcher rejected or failed to reject the following null hypotheses:

**H<sub>01</sub>:** There is no statistically significant difference between the attendance of elementary school students with a Section 504 plan as compared to their non-disabled peers in the district.

**H<sub>02</sub>:** There is no statistically significant difference between the attendance of male elementary school students with a Section 504 plan as compared to their non-disabled peers in the district.

**H<sub>0</sub>3:** There is no statistically significant difference between the attendance of female elementary school students with a Section 504 plan as compared to their non-disabled peers in the district.

### **Design**

This researcher used a causal-comparative design to analyze the effect of Section 504 plans on elementary students' attendance. This researcher utilized archival data from School District A, located in central Virginia, with a focus on elementary schools across the school district. Elementary school is defined as students in kindergarten-5th grade. Gall, Gall, and Borg (2007) described a causal comparative research design as a quantitative investigation wherein researchers compare existing groups and determine how they differ on a dependent variable. A causal comparative design is appropriate for this study because this researcher used a preexisting sample and compared the preexisting population on the dependent variable of attendance. This researcher used a Mann-Whitney U test to compare students with 504 plans to their non-disabled peers of all elementary school students in the district.

The independent variable for this study was students with a 504 plan. Students qualify for a 504 plan if they have a physical or mental impairment that limits one or more major life activities, a record of them having the impairment, or observations noting they have the impairment (Martin, 2010; Weber, 2012). The study's dependent variable was student attendance. School District A adheres to VDOE's 2018 attendance policy, which grants local school boards the right to develop their policy on attendance. The school year consists of 180 days. The attendance policy for School District A is as follows: (a) students who have 5 unexcused absences in a school year will have a conference with a school-level administrator; (b) students who have 7 unexcused absences over the course of the school year are referred to the

department of student services; (c) students who have 15 or more unexcused days, over the course of the school year, are subject to administrative review and can receive an alternative school placement. In accordance with School District A policy, school personnel at the elementary level take attendance each day. The school day is divided into two halves, and students who are not present for at least one-half of the school day shall be counted as absent.

### **Participants and Setting**

Participants in this study include students who attend a central Virginia urban school district. According to Data USA (2018), the urban area in which School District A resides is primarily composed of low-middle class families, and 24% of these families live in poverty. The population by race consisted of 65% White, 28% Black, 2.7% Asian, 2.6% two or more races and 0.8% reported other (Data USA, 2018). The percentage of families living in poverty exceeds the state's average poverty rate of 11%. School District A resides in an urban area and has 11 elementary schools and serves 3,939 elementary students (VDOE, n.d.).

The participants for this study were chosen through a random sample of elementary students using archival data of elementary students with 504 plans. The researcher utilized the Statistical Package for the Social Sciences to select the random sample. The procedures for selecting the random sampling within Statistical Package for the Social Sciences were as follows: (a) click the data option from the main menu and then click select cases, (b) click on random sample of cases option within the select cases menu and then the sample option underneath, (c) choose the approximately option and state the percentage of cases from the sample in the box provided. The researcher included 50% of the overall sample. Next, the researcher checked the copy-selected box and named the new data set random sample. This data set is the random sample. The researcher used a Mann-Whitney U test to compare the

attendance of elementary students with 504 plans and their non-disabled peers. The number of participants in the convenient sample is 3,939 students, which exceeded the minimum required for a medium effect size for a Mann-Whitney u test. According to Gall et al. (2007), researchers must include at least 100 participants to satisfy the minimum for a medium effect size with statistical power of .7 at the .05 alpha level.

The sample included 1979 males and 1960 female, with an average age of 8.79 years old. The racial demographics of the sample were as follows: (a) Black = (1,904, 48.3%), (b) White = (1,279, 32.5%), (c) Multiracial = (385, 9.8%), (d) Hispanic = (280, 7.1%), Asian = (75, 1.9%) and (e) American Indian (12, 0.3%). The grade levels of the sample are as follows: (a) kindergarten first grade = (673, 17.1%) (b) first grade = (662, 16.8%), (c) second grade = (668, 17.0%), (d) third grade (629, 16.0%), (e) fourth grade = (653, 16.6%), and (f) fifth grade = (654, 16.6%).

### **Instrumentation**

The researcher used archival data provided by School District A to conduct this research. The researcher compared this data to the school attendance guidelines set forth by the VDOE policy (Code of Virginia § 22.1-254). The VDOE (2016) website establishes the criteria for truancy, excused absences, and unexcused absences. The VDOE has charged the local school boards with defining attendance as well as regulating tardiness or other absences. In accordance with School District A's policy, all elementary schools within the school district must document student attendance on a daily basis. School District A policy also states that elementary schools must count students as absent for the entire day if they do not complete at least one-half of the school day. At the beginning of each school day, teachers within School District A mark students as either absent or present within the district's student information system.



VDOE policy (U.S. Code § 12102) sets the policy for determining if a student meets the criteria for a 504 plan. School district employees are responsible for identifying students who meet the eligibility criteria for a 504 plan based on a physical or mental disability that limits one or more life activities. The original act reflecting 504 plans was the Rehabilitation Act of 1973/1974. This act was a civil rights legislation aimed at eliminating discrimination based on disability for organizations that receive federal funding (Chamusco, 2017). Chamusco (2017) and McGovern (2015) that the act was revolutionary in supporting individuals with disabilities. Although Congress signed the act into law in 1973, it was not fully implemented until 1977.

### **Procedures**

Prior to conducting this study, the researcher obtained permission from the Institutional Review Board (see Appendix B). The researcher spoke directly with the superintendent from School District A and sent a follow up email formally requesting permission to use archival student attendance for elementary students in School District A from school years 2018-2019. The assistant superintendent gave the researcher permission to use archival data in the forms of attendance of all elementary students which also identified students with or without a 504 plan (see Appendix A).

The researcher received the archival data via an electronic secure excel spreadsheet from the School District A's Information Technology Department. The spreadsheet included attendance data for K-5th grade students from School District A's 11 elementary schools. The attendance data was separated in to two groups: students with 504 plans and their non-disabled peers. The researcher placed a formal work order request, with the permission from the superintendent's office, to the Information Technology department. The request included attendance data for elementary students with and without 504 plans. An employee from the

information technology department accessed School District A's student information system, downloaded the elementary student attendance, and indicated which students receive services under a 504 plan and which students do not receive services under a 504 plan. Student names and other identifiers were excluded from this data.

At the beginning of each day throughout the 2018-19 school year, classroom teachers from School District A reported student attendance on the district's student information system. The length of the 2018-19 school year was 180 days. Once attendance was taken, it was electronically sent to the attendance clerk via the student information system. The attendance clerk subsequently uploaded the data to central office.

The spreadsheet included attendance data for all elementary students in the district. In addition to attendance data, the spreadsheet identified those students who had a Section 504 with a (Y), indicating yes in the box, and students who did not have a 504 plan had a (N), indicating no in the box. The researcher used the data to identify students who received services under a 504 plan and students who did not have a 504 plan. The researcher used Statistical Packages for the Social Sciences to conduct a Mann-Whitney U test to compare the attendance rates of students who receive services under a 504 plan to students who do not receive services under a 504 plan. Additionally, the researcher used a Mann-Whitney U test to compare the attendance of rates for male/female students with a 504 plan to that of their non-disabled peers.

### **Data Analysis**

The researcher analyzed the archival data by comparing the attendance of elementary students with a 504 plan and the attendance of their non-disabled peers across the school district. The researcher used a Mann-Whitney U test to investigate the hypotheses, using actual numbers provided by School District A, pertaining to the attendance rate of students with a 504 plan to

that of the attendance rate of their non-disabled peers. Gall et al. (2007) reported that researchers use a Mann-Whitney U test to determine the significance of the difference between the means of the two groups (students with 504 plan/students without). To further investigate the hypotheses, the researcher used a Mann-Whitney U test to compare attendance as it pertains specifically to male and female students with a 504 plan to their non-disabled peers. A Mann-Whitney U test is the most appropriate analysis to compare the means from the data set. Prior to conducting a Mann-Whitney U test, the researcher screened for inconsistencies, errors, and outliers. The researcher used a box and whisker plot to identify outliers, a Kolmogorov-Smirnov (KS) for assumptions of normality, and an assumption of equal variance through Levene's test of equal variance. The researcher tested the null hypothesis at a 95% confidence level, alpha level .05, and use Eta squared to report the effect size. The researcher also calculated descriptive statistics for the dependent variable.

## CHAPTER FOUR: FINDINGS

### Overview

The purpose of this quantitative study was to examine the difference of attendance between elementary students with a Section 504 plan as compared to their non-disabled peers. Section 504 plans provide teacher-directed support for a student with a diagnosed disability. I used archival data from School District A, located in Central Virginia. The content of Chapter Four includes the research question, null hypothesis, descriptive statistics, and results.

### Research Question

**RQ1:** Is there a difference between the attendance of elementary school students with a Section 504 plan as compared to their non-disabled peers in the district?

### Null Hypotheses

In addressing the research questions, the researcher rejected or failed to reject the following null hypotheses:

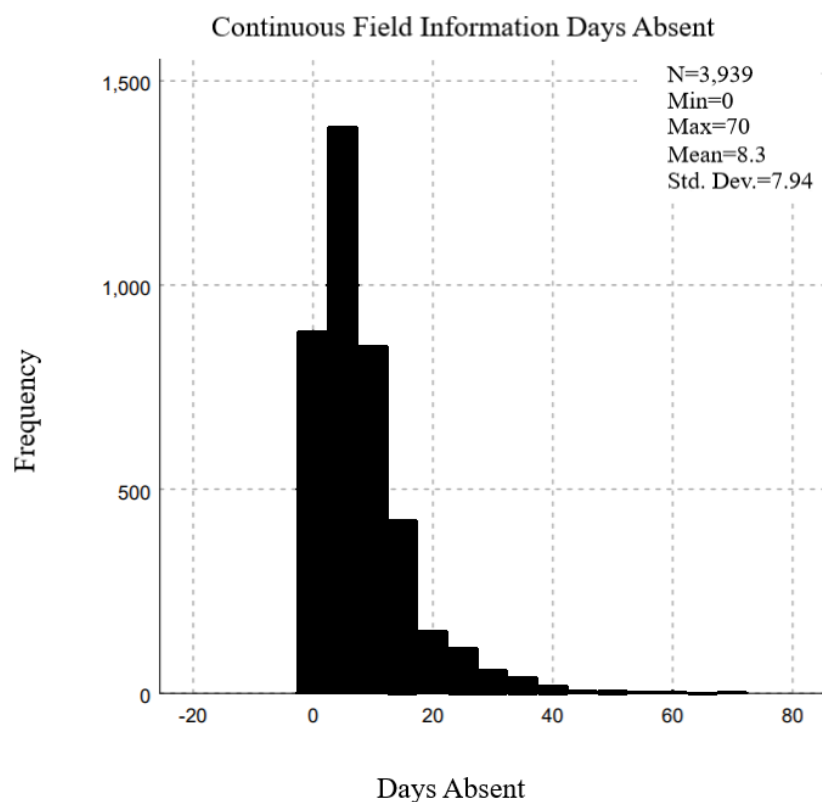
**H<sub>01</sub>:** There is no statistically significant difference between the attendance of elementary school students with a Section 504 plan as compared to their non-disabled peers in the district.

**H<sub>02</sub>:** There is no statistically significant difference between the attendance of male elementary school students with a Section 504 plan as compared to their non-disabled peers in the district.

**H<sub>03</sub>:** There is no statistically significant difference between the attendance of female elementary school students with a Section 504 plan as compared to their non-disabled peers in the district.

### Descriptive Statistics

The researcher collected attendance data from School District A's information database system, Infinite Campus. In the 2018-2019 school year, School District A had 3,939 elementary students enrolled across all its elementary schools. The researcher grouped students into two categories: those with Section 504 plans and those without 504 plans. When grouped into these categories, there were a total of 128 students with 504 plans and 3,811 students without 504 plans. The gender breakdown was as follows: 45 female students and 83 male students with a Section 504 plan and 1,915 female students and 1,896 male students without a 504 plan. The Commonwealth of Virginia's school year consists of 180 school days. Figure 1 provides a breakdown of the frequencies of absences, for all students, during the 2018-2019 school year.



*Figure 1.* Frequency distribution of absences for all students.

A Kolmogorov-Smirnov test is appropriate when a sample size is greater than 50. Using a significance level of  $p < .05$  for the Kolmogorov-Smirnov test, the researcher found statistically significant skewness at  $p = 0.981$ , and therefore, the data set did not meet the assumption of normality and a parametric test was not appropriate. The original distribution from the Kolmogorov-Smirnov test is not normal. Therefore, a non-parametric test is most appropriate to analyze the data set.

## **Results**

### **Null Hypothesis One**

**Data screening.** The researcher conducted data screening on the dependent variable. The sample size for null hypothesis  $H_{01}$  was 3,939. The researcher sorted the data and did not identify any missing values or inconsistencies. Next, the researcher used box and whisker plots to detect outliers for the dependent variable. There were outliers and extreme outliers in the data set. The researcher included the outliers in the data set as they represented actual student attendance. Figure 2 provides the box and whisker plots for the school attendance of elementary school students with a Section 504 plan as compared to their non-disabled peers in the district.

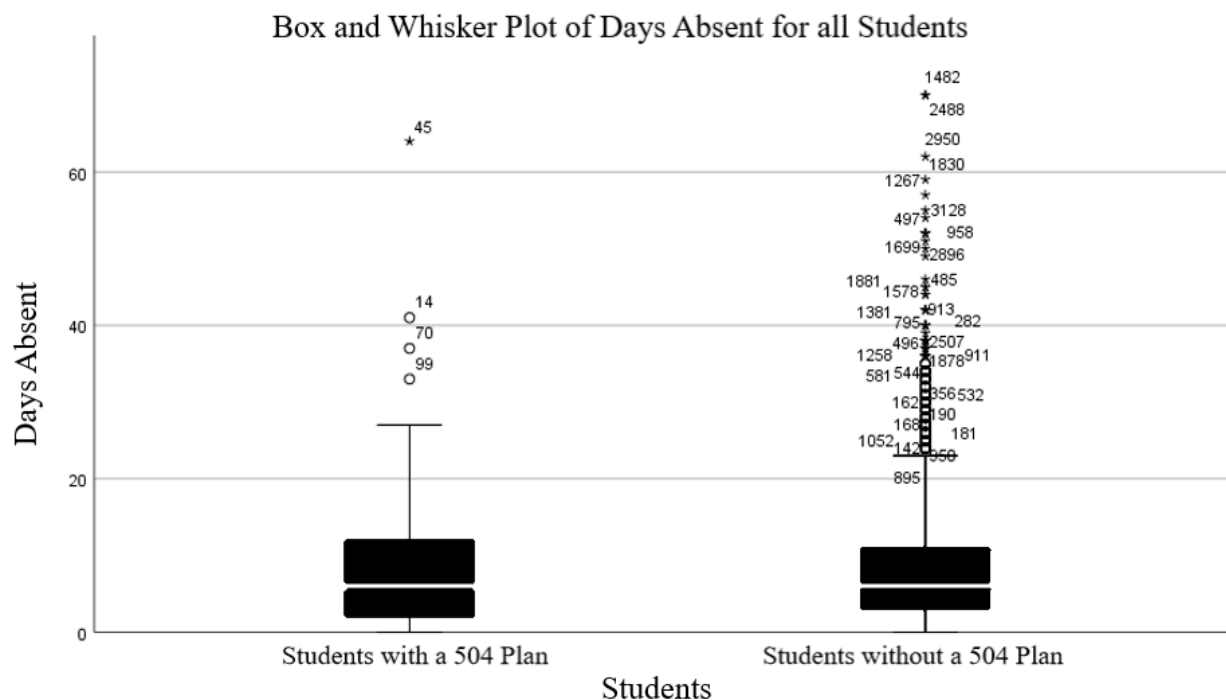


Figure 2. Boxplot of days absent for all students.

**Assumptions.** Figure 3 provides a breakdown of the frequencies of absences during the 2018-19 school year for all students. The figure indicates that there is a positively skewed distribution. To investigate the assumption of normality, the researcher used a Kolmogorov-Smirnov test. A Kolmogorov-Smirnov test is appropriate when a sample size is greater than 50. Using a significance level of  $p < .05$  for the Kolmogorov-Smirnov test, the researcher found statistically significant skewness at  $p = 0.981$ , and therefore, the data set did not meet the assumption of normality and a parametric test was not appropriate.

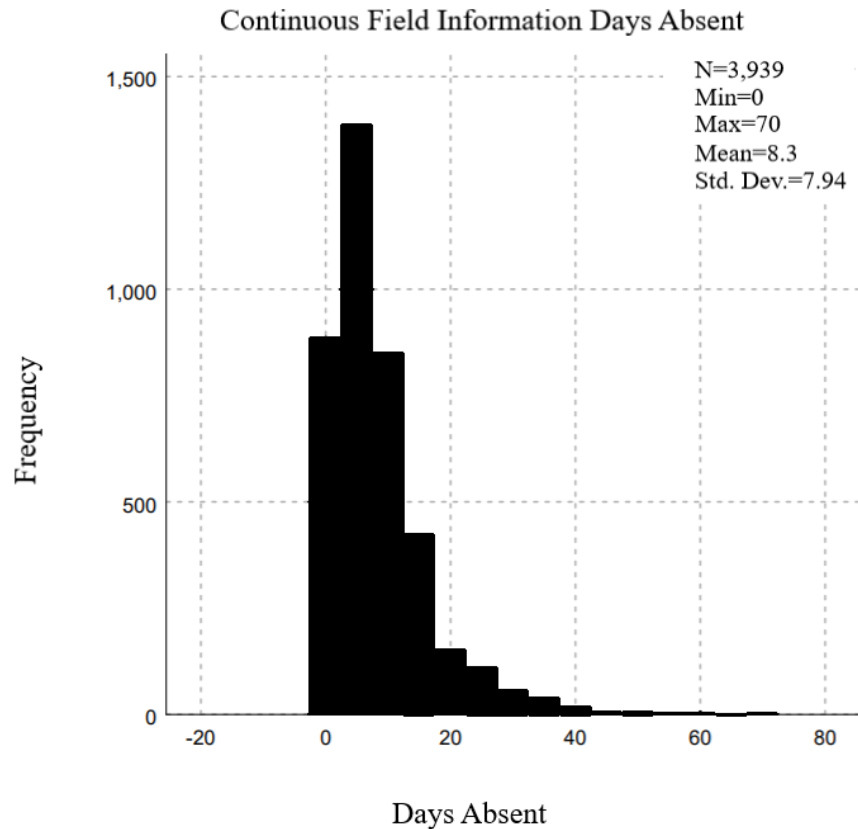


Figure 3. Frequency distribution of absences for students in both groups.

**Results for null hypothesis one.** Since the assumption of normality was not met, the researcher used a Mann-Whitney U to test the null hypothesis  $H_01$ . The Mann-Whitney U is a nonparametric test that is used to determine if ranked scores in two independent groups differ (Gall, Gall, & Borg, 2007). Figure 4 outlines the results from the Mann-Whitney U test for all students in the data set. Table 1 includes the descriptive statistics for each group.

Table 1

*Descriptive Statistics: Students' Absences*

	<i>N</i>	<i>M</i>	<i>SD</i>
Students without a 504 plan	3811	8.31	7.90
Students with a 504 plan	128	8.50	9.08

There was not a statistically significant difference between the attendance of elementary school



students with a Section 504 plan as compared to their non-disabled peers ( $U = 247,884.500$ ,  $p = .753$ ). Therefore, the researcher did not reject null hypothesis  $H_{01}$ .

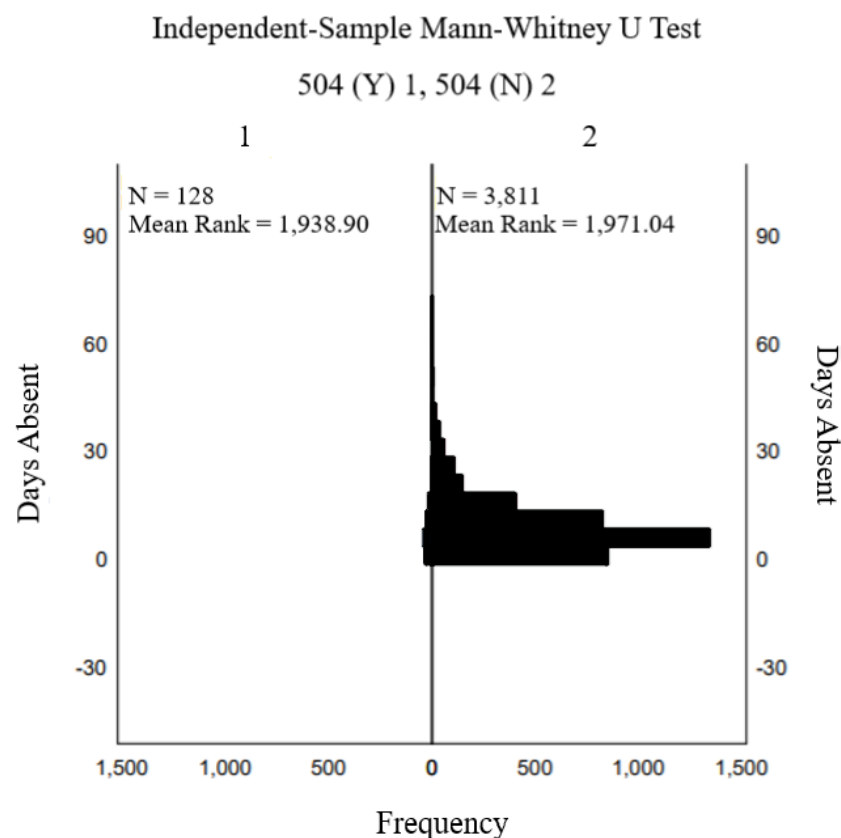


Figure 4. Mann-Whitney U Test for all students.

## Null Hypothesis Two

**Data screening.** The researcher conducted data screening on the dependent variable. The sample size for null hypothesis  $H_{02}$  was 1,979. The researcher sorted the data and did not identify any missing values or inconsistencies. Next, the researcher used box and whisker plot to detect outliers for the dependent variable. There were outliers and extreme outliers in the data set. The researcher included the outliers in the data set as they represented actual student attendance. Figure 5 provides the box and whisker plots for the school attendance of male elementary school students with a Section 504 plan as compared to their non-disabled peers in the district.

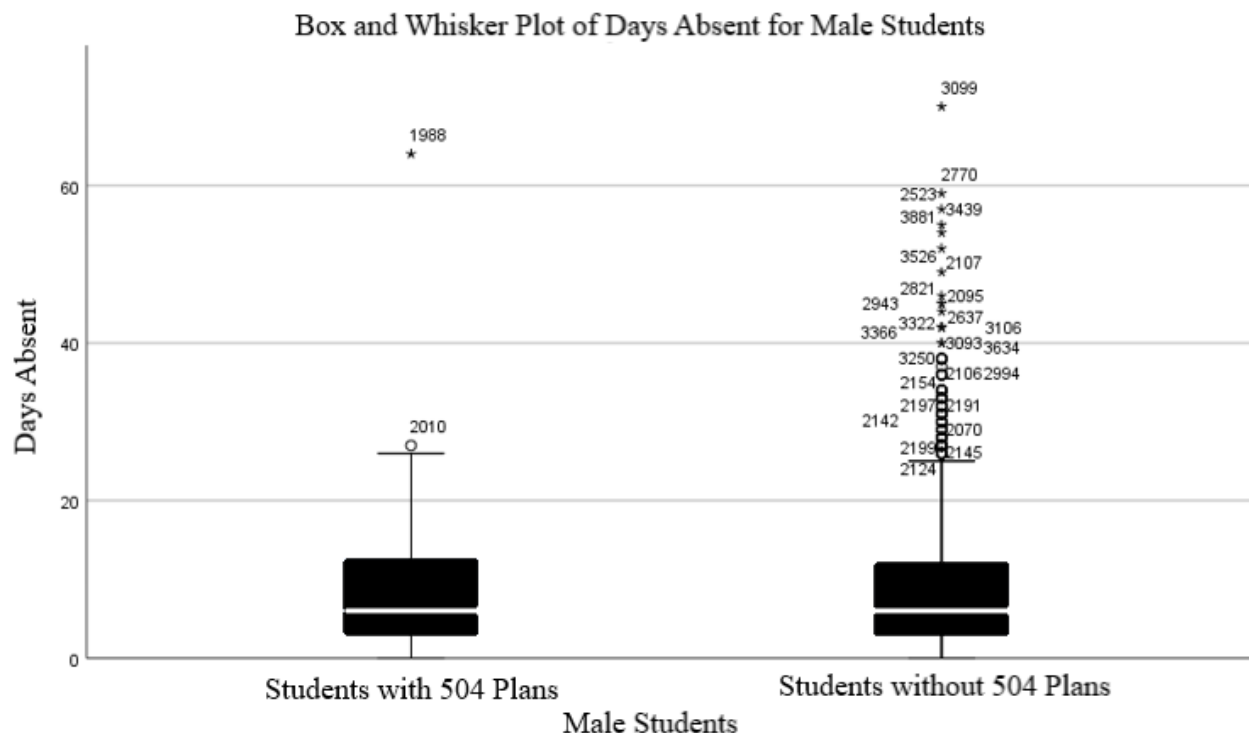


Figure 5. Boxplot of days absent for male students.

**Assumptions.** Figure 6 provides a breakdown of the frequencies of absences during the 2018-19 school year for male students without a 504 plan and male students with a 504 plan. The figure indicates that there is a positively skewed distribution. To investigate the assumption of normality, the researcher used a Kolmogorov-Smirnov test. Using a significance level of  $p < .05$  for the Kolmogorov-Smirnov test, the researcher found statistically significant skewness at  $p = 1.000$ , and therefore, the data set did not meet the assumption of normality and a parametric test was not appropriate.

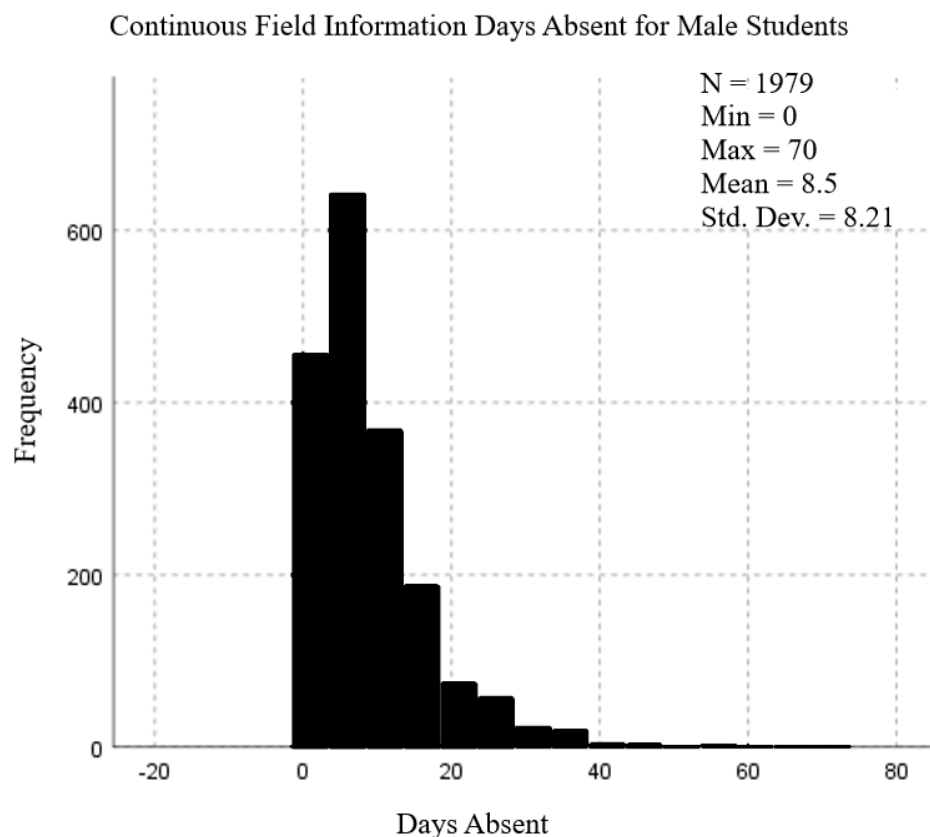


Figure 6. Frequency distribution of absences for male students.

**Results for null hypothesis two.** Since the assumption of normality was not met, the researcher used a Mann-Whitney U to test the null hypothesis. Table 2 includes the descriptive statistics for each group.

Table 2

*Descriptive Statistics: Male Students' Absences*

	<i>N</i>	<i>M</i>	<i>SD</i>
Males without a 504 plan	1896	8.54	8.18
Males with a 504 plan	83	8.61	9.01

There was not a statistically significant difference between the attendance of elementary school students with a Section 504 plan as compared to their non-disabled peers ( $U =$

78,813.500,  $p = .980$ ). Therefore, the researcher did not reject null hypothesis  $H_{02}$ . Figure 7 outlines the results from the Mann-Whitney U test for all male students in the data set.

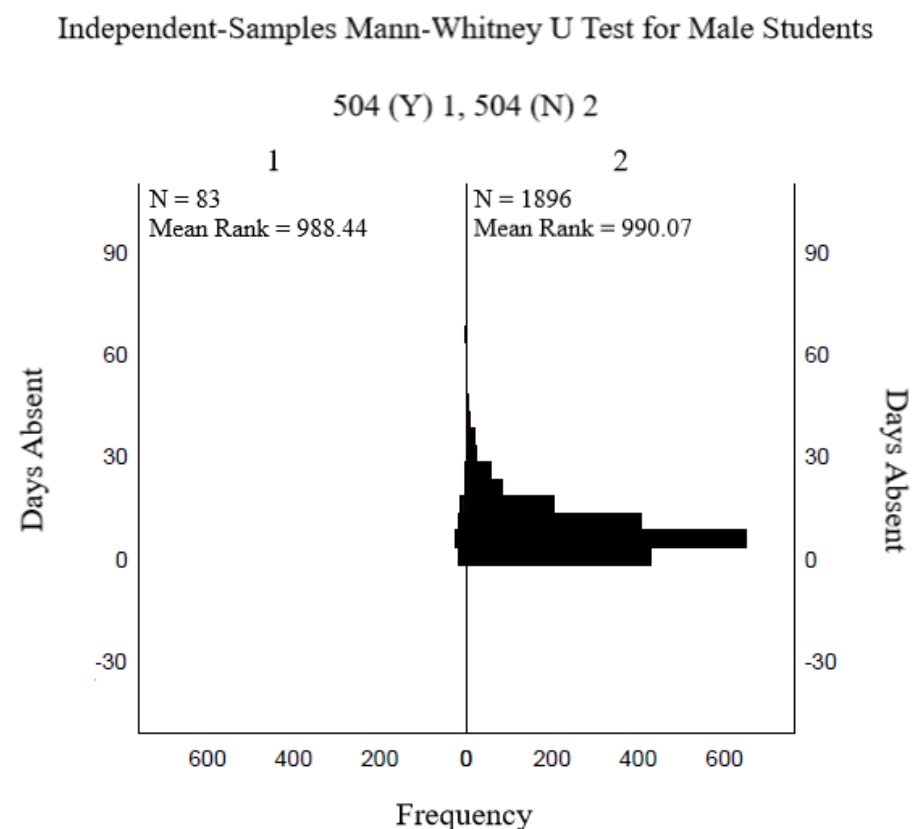


Figure 7. Mann-Whitney U Test for male students.

### Null Hypothesis Three

**Data screening.** The researcher conducted data screening on the dependent variable. The sample size for null hypothesis  $H_{03}$  was 1,960. The researcher sorted the data and did not identify any missing values or inconsistencies. Next, the researcher used box and whisker plot to detect outliers for the dependent variable. There were outliers and extreme outliers in the data set. The researcher included the outliers in the data set as they represented actual student attendance. Figure 8 provides the box and whisker plots for the school attendance of female elementary school students with a Section 504 plan as compared to their non-disabled peers in the district.

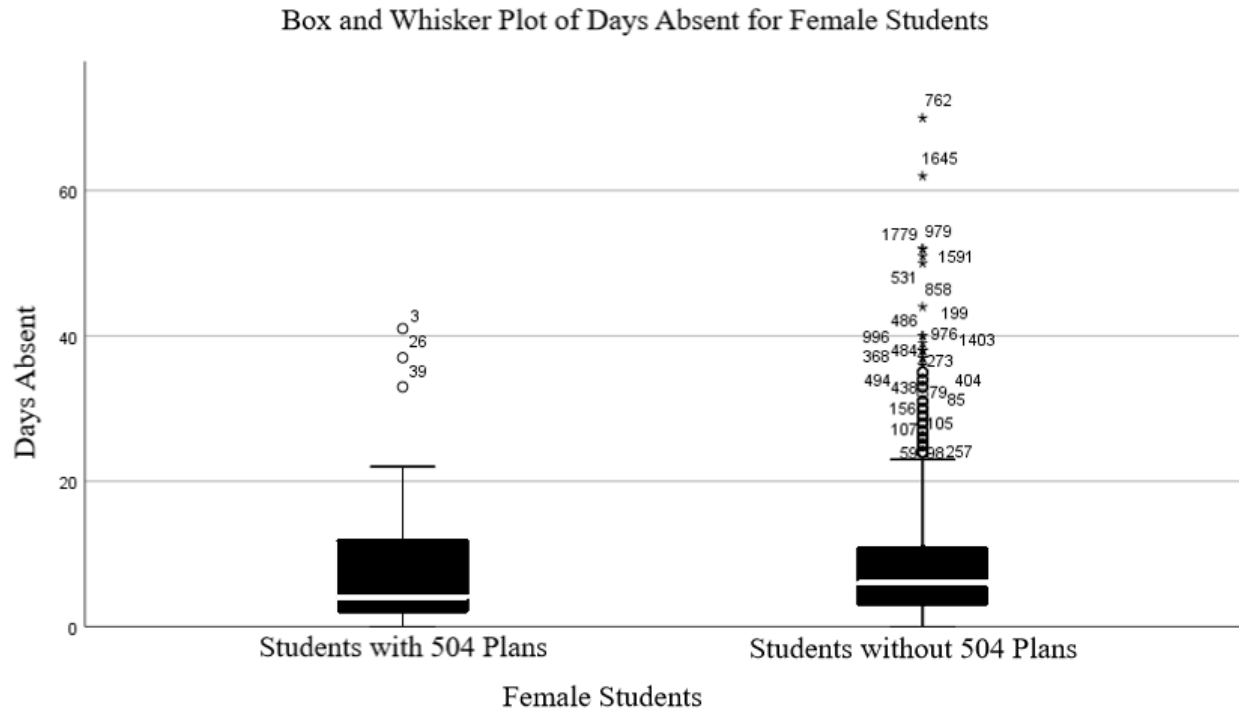


Figure 8. Boxplot of days absent for female students.

**Assumptions.** Figure 9 provides a breakdown of the frequencies of absences during the 2018-19 school year for female students without a 504 plan and female students with a 504 plan. The figure indicates that there is a positively skewed distribution. To investigate the assumption of normality, the researcher used a Kolmogorov-Smirnov test. Using a significance level of  $p < .05$  for the Kolmogorov-Smirnov test, the researcher found statistically significant skewness at  $p = .370$ , and therefore, the data set did not meet the assumption of normality and a parametric test was not appropriate.

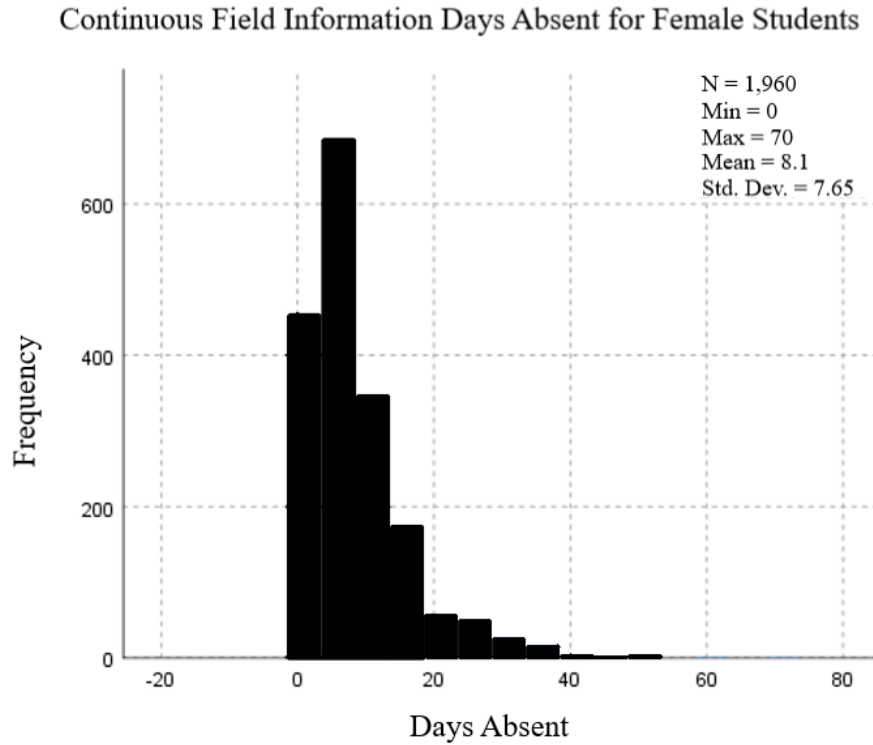


Figure 9. Frequency distribution of absences for female students.

**Results for null hypothesis three.** Since the assumption of normality was not met, the researcher used a Mann-Whitney U to test the null hypothesis. Table 3 includes the descriptive statistics for each group.

Table 3

*Descriptive Statistics: Female Students' Absence*

	<i>n</i>	<i>M</i>	<i>SD</i>
Females without a 504 plan	1915	8.08	7.61
Females with a 504 plan	45	8.29	9.30

There was not a statistically significant difference between the attendance of female elementary school students with a Section 504 plan as compared to their non-disabled peers ( $U = 45,496.00$ ,  $p = .520$ ). Therefore, the researcher did not reject null hypothesis  $H_{03}$ . Figure 10 outlines the results from the Mann-Whitney U test for all

female students in the data set.

### Independent-Samples Mann-Whitney Test for Female Students

504 (Y) 1, 504 (N) 2

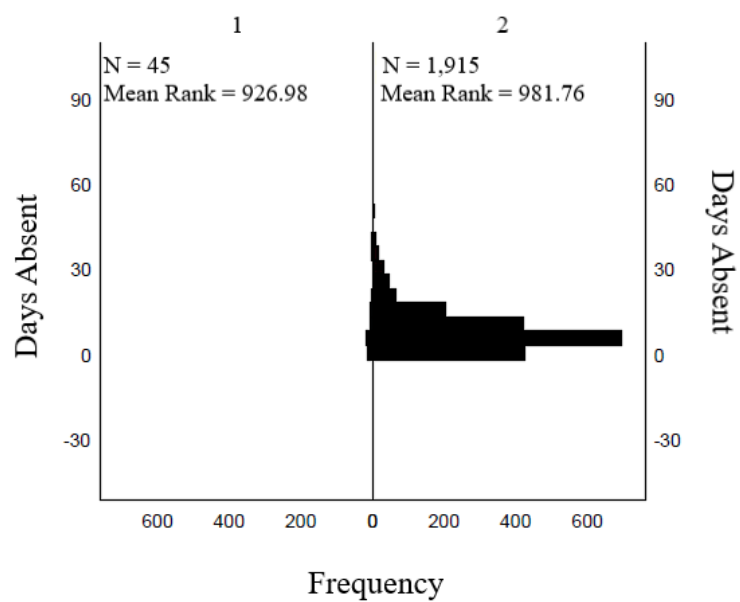


Figure 10. Mann-Whitney U Test for all female students.

## **CHAPTER FIVE: CONCLUSIONS**

### **Overview**

The purpose of this this causal-comparative quantitative study was to compare the attendance of students with a Section 504 plan to their non-disabled peers. Section 504 plans are teacher-directed support for a student with a diagnosed disability. This researcher used archival attendance data from School District A, located in central Virginia, to investigate the effect of a Section 504 plan on student attendance as compared to their non-disabled peers. The content of Chapter Five includes a discussion of the study, implications of the study, limitation of the study, and recommendations for future research.

### **Discussion**

Prior to comparing the attendance of the two groups, the normality in the distribution needed to be tested. A Kolmogorov-Smirnov test to assess the normality of the data distribution and a value of  $p < .05$  as the criterion for determining if the data set met the assumption of normality and if either a parametric test or a nonparametric test was appropriate for comparing the attendance rates of students with and without 504 plans. With a value of  $p = 0.981$ , the data set did not meet the assumption of normality; therefore, a nonparametric test, Mann-Whitney U, was appropriate. Convenient sampling was used to select the participants for this study. The following was the research question for this study:

#### **Research Question 1**

Is there a difference between the attendance of elementary school students with a Section 504 plan as compared to their non-disabled peers in the district?

There is limited research investigating attendance rates of SWD who receive support through a 504 plan. Chen et al. (2016) reported that absenteeism and truancy were concerns for



SWD who received special education services. Harrison et al. (2013) noted that SWD experienced academic distress, which resulted in them having disproportionately high levels of truancy or absenteeism. For research question 1, the researcher sought to determine if there was a statistically significant difference in attendance for SWD who received support under a 504 plan as compared to their non-disabled peers.

Archival attendance data from School District A was used in this study. The data consisted of 3,939 students from 11 elementary schools. Of the 3,939 students, 128 were identified as having a disability and received supports under a Section 504 plan. In addition to the attendance data, the following demographic data for each student: race, gender, grade level, and age. The research question centered on student attendance rates. The researcher sought to determine if there was a difference in attendance for students with a Section 504 plan as compared to their non-disabled peers. Although unable to reject the null hypothesis, the body of knowledge regarding attendance rates of SWD who received support under a 504 plan was increased.

The theoretical lenses through which the researcher investigated the topic were Bandura's social cognitive theory, Maslow's hierarchy of needs, and Vygotsky's social development theory. These theories focus on individuals working together to promote learning. Collaboration and socialization with others supports cognitive development. Attendance is an important part of the educational process.

A fundamental component of Bandura's social cognitive theory is that students learn through observation and modeling (Bandura, 1989). Attendance is a key aspect of learning (Bargerhuff, 2013). Students are able to learn through the modeling of others (Bargerhuff, 2013). The central research question was designed to determine if there was a statistically

significant relationship between the two groups in the area of attendance. Other studies of SWD (e.g., Chen et al., 2016; Van Eck et al., 2017) focus solely on students supported under an IEP. I compared the attendance rates of SWD who received support under a 504 plan to the attendance rates of their non-disabled peers. Van Eck et al. (2017) and Cook et al. (2017) found that SWD who received services under an IEP had high absenteeism, based on the results of the present study, I found that students with 504 plans did not have a statistically significant difference in their attendance rates when compared to their non-disabled peers.

Maslow's hierarchy of needs posited that once students met their needs at one level, they could move to the next level. All students need to feel a sense of security and safety to learn. According to Maslow, if a student's basic need of belonging cannot be met, then they are not able to progress to the next level. The importance of meeting the basic need of belonging is especially significant for SWD (Bargerhuff, 2013). Furthermore, Bargerhuff (2013) found that SWD often had deficits in social skills and poor peer relationships. Students with deficits in social skills are at risk for high truancy and absenteeism rates (Van Eck et al., 2017). Bargerhuff believed that educators needed to cultivate an environment where SWD felt a sense of belonging and connectedness to the school society. Students who feel a sense of belonging and connectedness to the school are less likely to have high truancy and absenteeism rates (Bargerhuff, 2013).

Vygotsky's social development theory is grounded in the importance of attendance as it relates directly to learning (Vygotsky, 1978). Vygotsky's social development theory is a main part of constructivism. The premise behind constructivism is that learning is an active process where students learn alongside their peers (Vygotsky, 1978).

Harrison et al. (2013) concluded that students with frequent absences experienced academic and social distress. High absenteeism is an indicator of future school dropout, for all students, especially SWD (Chen et al., 2016; Van Eck et al., 2017); in addition, students with recurrent absences and/or truancy exhibit gaps in learning and experience unsuccessful outcomes in school (Dembo et al., 2016). This lack of success leads to further distress for students and results in an increased level of absenteeism (Bargerhuff, 2013).

Null Hypothesis 1 stated that there is no statistically significant difference between the attendance of elementary school students with a Section 504 plan as compared to their non-disabled peers in the district. The data set included 3,939 total students, 128 of whom received support from a Section 504 plan. The population group was greater than 50, so a Kolmogorov-Smirnov test was used to determine assumptions of normality. Using a significance level of  $p < .05$  for the Kolmogorov-Smirnov test, the results for all students determined that there was statistically significant skewness at  $p = 0.981$ . Since the data set did not meet the assumption of normality, a non-parametric test (Mann-Whitney U) was appropriate. Based on the results of the Mann-Whitney U test ( $U = 247,884.500$ ,  $p = .753$ ), no statistical significant difference between the attendance of elementary school students with a Section 504 plan as compared to their non-disabled peers.

Null Hypothesis 2 stated there is no statistically significant difference between the attendance of male elementary school students with a Section 504 plan as compared to their non-disabled peers in the district. The data set included 1,979 male students, 83 of whom received support from a Section 504 plan. The population group was greater than 50, so a Kolmogorov-Smirnov test was used to determine assumptions of normality. Using a significance level of  $p < .05$  for the Kolmogorov-Smirnov test, the results for all male students determined that there was

statistically significant skewness at  $p = 1.000$ . Since the data set did not meet the assumption of normality, a non-parametric test (Mann-Whitney U) was appropriate. Based on the findings from the Mann-Whitney U test for  $H_02$  ( $U = 78,813.500$ ,  $p = .980$ ), no statistical significant difference between the attendance of male students with a Section 504 plan as compared to their non-disabled peers.

Finally, Null Hypothesis 3 stated there is no statistically significant difference between the attendance of female elementary school students with a Section 504 plan as compared to their non-disabled female peers in the district. The population group was greater than 50, so a Kolmogorov-Smirnov test was used to determine assumptions of normality. Using a significance level of  $p < .05$  for the Kolmogorov-Smirnov test, the results for all female students determined that there was statistically significant skewness at  $p = .370$ . Since the data set did not meet the assumption of normality, a non-parametric test (Mann-Whitney U) was appropriate. The data set included 1,960 female students, 45 of which received support from a Section 504 plan. Based on the findings from the Mann-Whitney U test for  $H_03$  ( $U = 45,496.00$ ,  $p = .520$ ), no statistical significant difference between the attendance of female students with a Section 504 plan as compared to their non-disabled peers.

### **Implications**

The results of this study should benefit the Office of Special Education at School District A as well as other school divisions. The vast majority of educators believe that student attendance has a direct correlation to division and state assessments (Van Eck et al, 2017). Students with high absenteeism rates do not receive the same level of education/experiences as students who attend school consistently.

Student attendance is an integral part of the educational process. The VDOE reinforces this notion of attendance by modifying current accreditation standards to include an area for attendance. Students need to be present to learn. The importance of school attendance is interwoven throughout Vygotsky's social development theory, Maslow's hierarchy of needs, and Bandura's social cognitive theory (Bandura, 1989; Vygotsky, 1978). Students must be present to learn and develop socially.

Research from Chen et al. (2016) and Van Eck et al. (2017) discussed attendance rates for SWD that have IEP's but did not report on SWD that are supported under a 504 plan. Chen et al. (2016) and Van Eck et al. (2017) found that SWD IEP had disproportionately high absenteeism or truancy rates. The results of the present study failed to reject the null and ultimately contradicted previous research. The present study further increased the body of knowledge as it pertains to attendance rates for students with 504 plans. I found there was no statistically significant difference between the attendance of students with 504 plans and their non-disabled peers.

The difference in the results of this study as compared to other studies in which SWD experienced excessive absences could be related to the student's disability. Students who receive support from an IEP often have deficits in learning, processing, or thinking that can cause frustration and school avoidance (Chen et al., 2016). Students supported under a 504 plan may have a medical condition that does not have a direct impact on their cognitive ability. Therefore, the frustration level for students with a 504 plan may not be as severe and ultimately, may not impact their school attendance.

Administrators and educators need to be constantly reviewing and analyzing data to better support their students. The data outlined in this research study could support school

divisions with providing professional development to their teacher and staff. Additionally, the present study may serve as inspiration for other researchers to investigate and study the relationship students with 504 plans have to their non-disabled peers academically, socially, and behaviorally.

### **Limitations**

The first limitation was that this was the only research study that included the attendance rates for SWD that are supported by a 504 plan. Gall et al. (2007) noted that with studies using convenience samples researchers should be cautious accepting the findings or making generalizations on the basis of one study. Therefore, to create stronger validity, repeated replication of the study is recommended (Gall et al., 2007).

A second limitation was the use of a convenience sample composed of elementary students from an urban school district located in central Virginia. Although the data included all elementary students from the district, a limitation of this study was the students were from the same urban school district. Banerjee and Chaudhury (2010) reported that any inferences from a specific population can only be attributed to a similar population. Therefore, the findings of this study can only be applied to urban school districts.

A third limitation involves the sample size. Gall et al. (2007) recommends using the largest sample possible. Although there were 3,939 total students in the population, only 128 students received services under a Section 504 plan. Zirkel and Weathers (2016) reported that there are approximately 800,000 students supported by a 504 plan in the United States. These 128 students represented approximately 3% of the total population, and 0.016% of the total students served under a 504 plan in the United States.

A fourth limitation was the inability to identify a student's disability status within the data set. Research by Chen et al. (2016) indicated that students with medical conditions such as diabetes and asthma are at risk of missing more school than students without these conditions. Since the data set does not identify each student's disability, nor reason for being absent, the researcher was not able to determine if a student missed school for a medical condition. Some students may miss school due to lack of interest whereas others could miss school solely based on their disability.

A fifth limitation was fidelity to the state's and the division's attendance procedures. While state and division standards mandate that schools record daily attendance, the school division cannot guarantee that school personnel adhered to that mandate.

### **Recommendations for Future Research**

As a result of the findings in this study, recommendations for future research for students with Section 504 plans are as follows:

1. Replicate this study using a random sampling in an urban and/or rural district.
2. Replicate this study with a larger population group in an urban and/or rural district.
3. Replicate this study with students from a rural school district.
4. Replicate the study by comparing behavior data (referrals/suspensions) for students with 504 plans to their non-disabled peers, in an urban and/or rural district.
5. Replicate the study by analyzing academic data for students with 504 plans compared to their non-disabled peers in an urban and/or rural district.
6. Replicate the study by comparing attendance of students with 504 plans as compared to their non-disabled peers in middle school and/or high school.

7. Replicate the study using Skinner's positive reinforcement or Steers and Rhodes model of attendance as a theoretical construct.
8. Replicate the study using a different testing instrument.



## REFERENCES

- Allday, R., Neilsen-Gatti, S., & Hudson, T. (2013). Preparation for inclusion in teacher education pre-service curricula. *Teacher Education and Special Education, 36*(4), 298-311.  
doi:10.1177/0888406413497485
- Almqvist, C., Worm, M., & Leynaert, B. (2008). Impact of gender on asthma in childhood and adolescence. *Allergy, 63*(1), 47-57. doi:10.1111/j.1398-9995.2007.01524.x
- American Diabetes Association (2018, March 22). *Statistics about diabetes*. Retrieved from <http://www.diabetes.org/diabetes-basics/statistics/>
- Aron, D., Tseng, C., Soroka, O., & Pogach, L. (2018). Balancing measures: Identifying unintended consequences of diabetes quality performance measures in patients at high risk for hypoglycemia. *International Journal for Quality in Health Care, 1*(1), 1-6. doi: 10.1093/intqhc/mzy151
- Banerjee, A., & Chaudhury, S. (2010). Statistics without tears: Populations and samples. *Industrial Psychiatry Journal, (19)*1, 60-65. doi:10.4103/0972-6748.77642
- Bargerhuff, M. E. (2013). Meeting the needs of SWD in STEM school. *American Secondary Education, 41*(3), 3-20.
- Balfanz, R., & Byrnes, V. (2012). The importance of being in school: A report on absenteeism in the nation's public schools. *The Education Digest, 78*(2), 4-9.
- Bandura, A. (1989). Human agency in social cognitive theory. *American Psychologist, 44*(9), 1175-1184. doi:10.1037/0003-066X.44.9.1175
- Bateman, B. D. (2017). Individualized education programs for children with disabilities. *Handbook of special education* (2nd ed., pp. 87-104). New York, NY: Routledge

- Bauemeister, J., Shrout, P., Chavez, L., Rubio-Stipec, M., Ramirez, R., Padilla, L., . . . & Canino, G. (2007). ADHD and gender: Are risks and sequela of ADHD the same for boys and girls? *Journal of Child Psychology and Psychiatry and Allied Disciplines*, 48(8), 831-839. doi:10.1111/j.1469-7610.2007.01750.x
- Beesdo, K., Knappe, S., & Pine, D. (2009). Anxiety and anxiety disorders in children and adolescents: Developmental issues and implications for DSM-V. *Psychiatric Clinics of North America*, 32(3), 483-524. Doi: 10.1016/j.psc.2009.06.002
- Bussing, R., Gagnon, J. C., Garvan, C., Ribuffo-Duggan, C., & Houchins, D. (2017). Psychometric properties of the Vanderbilt ADHD diagnostic rating scale completed by juvenile corrections staff. *Journal of Attention Disorders*, 6(5), 1-6. doi:10.1177/1087054717690811
- Campisi, L., Imran, N., Nazeer, A., & Wagner A. M. (2018). Autism spectrum disorder. *British Medical Bulletin*, 127(1), 91-100. doi:0.1093/bmb/ldy026
- Chamusco, B. (2017). Revitalizing the law that “preceded the movement”: Associational discrimination and the Rehabilitation Act of 1973. *The University of Chicago Law Review*, 84(3). 1285-1324.
- Chang, H., & Romero, M. (2008). *Present, engaged and accounted for the critical importance of addressing chronic absence in early grades*. National Center for Children in Poverty (NCCP): Retrieved from [http://www.nccp.org/publications/pdf/text\\_837.pdf](http://www.nccp.org/publications/pdf/text_837.pdf)
- Chang, H., & Jordan P. (2012). Tackling chronic absenteeism in early grades. National Civic Review: Retrieved from <https://onlinelibrary-wiley-com.ezproxy.liberty.edu/doi/epdf/10.1002/ncr.20078>

- Chen, C., Culhane, D. P., Metraux, S., Park, J. M., & Venable, J. C. (2016). The heterogeneity of truancy among urban middle school students: A latent class growth analysis. *Journal of Child and Family Studies*, 25(4), 1066–1075. doi:10.1007/s10826-015-0295-3
- Cook, P. J., Dodge, K. A., Gifford, E. J., & Schulting, A. B. (2017). A new program to prevent primary school absenteeism: Results of a pilot study in five schools. *Children and Youth Services Review*, 82(1), 262-270. doi:10.1016/j.childyouth.2017.09.017
- Cortiella, C., & Kaloi, L. (2010). Meet the new and improved Section 504. *The Exceptional Parent*, 40(2), 14-15.
- Civic Impulse. (2018). H.R. 8070 — 93rd Congress: Rehabilitation Act. Retrieved from <https://www.govtrack.us/congress/bills/93/hr8070>
- Daneshfar, S., & Moharami, M. (2018). Dynamic assessment in Vygotsky's sociocultural theory: Origins and main concepts. *Journal of Language Teaching and Research*, 9(3), 600-607. doi:10.17507/jltr.0903.20
- Daniels-Bacchus, G. (2018). Ensuring accessibility is everyone's responsibility. *Community College Journal*, 88(4), 31-32.
- Dembo, R., Wareham, J., Schmeidler, J., Briones-Robinson, R., & Winters, K. (2016). Differential effects of mental health problems among truant youths. *The Journal of Behavioral Health Services & Research*, 43(3), 402-427. doi:10.1007/s11414-014-9435-6
- Diabetes Mellitus. (2018). In Encyclopedia Britannica online. Retrieved from <https://www.britannica.com/science/diabetes-mellitus>
- Downing, J. (2010). *Academic instruction for students with moderate to severe intellectual disabilities in inclusive classrooms*. Thousand Oaks, CA: Corwin.

- Dudley-Marling, C., & Burns, M. B. (2014). Two perspectives on inclusion in the United States. *Global Education Review*, 1(1) 14-31.
- DuPaul, G., Gormley, M., & Laracy, S. (2014). School-based *interventions* for elementary school students with adhd. *Child and Adolescent Psychiatric Clinics of North America*, 23(4), 687-697. doi:10.1016/j.chc.2014.05.003
- Dworznski, K., Ronald, A., Bolton, P., & Happe, F. (2012). How different are girls and boys above and below diagnostic threshold for autism spectrum disorders? *Journal of the American Academy of Child and Adolescent Psychiatry*, 51(8), 788-797. doi:10.1016/j.jaac.2012.05.018
- Ehrlich, S., Gwynne, J., & Allensworth, E. (2018). Pre-kindergarten attendance matters: Early chronic absence patterns and relationships to learning outcomes. *Early Childhood Research Quarterly* 44(3), 136-151. doi:10.1016/j.ecresq.2018.02.012.
- Engelke, M., Swanson, M., & Guttu, M. (2014). Process and outcomes of school nurse case management for students with asthma. *The Journal of School Nursing*, 30(3), 196-205. doi:10.1177/1059840513507084
- Fazel, M., Hoagwood, K., Stephan, S., & Ford, T. (2014). Mental health interventions in schools in high-income countries. *The Lancet Psychiatry*, 1(5), 377-387. doi:10.1016/S2215-0366(14)70312-8
- Ferrer, E., Shaywitz, B., Holahan, J., Marchione, K., Michaels R., & Shaywitz, S. (2015). Achievement gap in reading is present as early as first grade and persists through adolescence. *The Journal of Pediatrics* 167(5), 1121-1125. doi:10.1016/j.jpeds.2015.07.045

- Finning, K., Ukoumunne, O., Ford, T., Danielsson-Waters, E., Shaw, L., Romero De Jager, I., Stentiford, L., & Moore, D. (2019). The association between anxiety and poor attendance at school – a systematic review. Systematic review protocol. *Child and Adolescent Mental health*, 1-12. doi: 10.1111/camh.12322
- Flower, A., McKenna, J., Bunuan, R., Muething, C., & Vega, R. (2014). Effects of the good behavior game on challenging behaviors in school settings. *Review of Educational Research*, 84(4), 546-571. doi:10.3102/0034654314536781
- Fried, R., Petty, C., Faraone, S., Hyder, L., Day, H., & Biederman, J. (2016). Is ADHD a risk factor for high school dropout? A controlled study. *Journal of Attention Disorders*, 20(5), 383-389. doi:10.1177/1087054712473180
- Gall, M. D., Gall, J. P., & Borg, W. R. (2007). Educational research: An introduction (8th ed.). New York, NY: Allyn & Bacon.
- Garabet, P. (2014). Road to recovery: Recreation therapy for emotionally disturbed youth. *The Exceptional Parent*, 44(2), 32-75.
- Geenlan, D., Christie, P., Mills, M., Keddle, A., & Renshaw P. (2015). Lessons from Alison: A narrative study of differentiation in classroom teaching. *International Journal of Pedagogies and Learning*, 10(1), 13-23. doi:10.1080/22040552.2015.1084673
- Gotfried, M. (2017). Does truancy beget truancy? Evidence from elementary school. *Elementary School Journal*, 118(1), 128-148. doi:10.1086/692938
- Gould, C., Perzanowski, M. S., Evans, M., & Bruzzese, J. (2018). Association of exercise induced wheeze and other asthma symptoms with emergency room visits and hospitalizations in a large cohort of urban adolescents. *Respirator Medicine*, 135(1), 42-50. doi:10.1016/j.rmed.2018.01.005

- Green, J., Comer, J., & Donaldson, A. (2016). School functioning and use of school-based accommodations by treatment-seeking anxious children. *Journal of Emotional and Behavioral Disorders*, 25(4), 220-232. doi: 10.1177/1063426616664328
- Gul, A., Sharif, N., & Zahoorullah, A. S. (2018). Diabetes; comparison of HBA1C and serum glycated albumin levels as monitoring tool. *Professional Medical Journal*, 25(1), 109-114. doi:10.29309/TPMJ/18.4263
- Handler, S. (2016). Dyslexia: What you need to know. *Contemporary Pediatrics*, 33(8), 18-23.
- Harrison, J., Bunford, N., Evans, S., & Owens, J. (2013). Educational accommodations for students with behavioral challenges: A systematic review of literature. *American Educational Research Association*, 83(4), 551-597. doi:10.3102/0034654313497517
- Havik, T., Bru, E., & Ertesvag, S. (2015). School factors associated with school refusal – and truancy – related reasons for school non-attendance. *Social Psychology of Education*, 18(2), 221-240. doi:10.1007/s11218-015-9293-y
- Hersch, J., & Bennett, J. (2015). Fifty years later: The legacy of the Civil Rights Act of 1964. *Journal of Policy Analysis and MAnagement*, 32(2), 424-463. doi:10.1002/pam.21824
- Heejoo, J., Schieve, L., Rice, C., Lin, T., Blumberg, S., Kogan, M., & Boyle, C. (2015). Age at autism spectrum disorder (ASD) diagnosis by race, ethnicity, and primary household language among children with special health care needs. *Maternal and Child Health Journal*, 19(1), 1687-1697.
- Hoff, D. & Mitchell, S. (2009). Cyberbullying: Causes, effects, and remedies. *Journal of Educational Administration*, 47(5), 652-665. doi: 10.1108/09578230910981107

- Ingul, J. & Nordahl, H. (2013). Anxiety as a risk factor for school absenteeism: What differentiates anxious school attenders from non-attenders? *Annals of General Psychiatry*, 25(12), 1-9. doi: 10.1186/1744-859X-12-25
- Iweala, O., Choudhary, S., & Commin, S. (2018). Food allergy. *Current Gastroenterology Reports*, 20(17), 17-23. doi:10.1007/s11894-018-0624-y
- Jackson, C., Albanese-Oneill, A., Butler, K., Chiang, J., Deeb, L., Hathaway, K., & Siminerio, L. (2015). Diabetes care in the school setting: A position statement of the American diabetes association. *Diabetes Care*, 38(10), 1958-1963. doi:10.2337/dc15-1418
- Kahu, E., Stephens, C., Leach, L., & Zepke, N. (2015). Linking academic emotions and student engagement: Mature-aged distance students transition to university. *Journal of Further and Higher Education*, 39(1), 481-489. doi:10.1080/0309877X.2014.895305
- Katsiyannis, A., & Reid, R. (1999). Autism and Section 504: Rights and responsibilities. *Focus on Autism and Other Developmental Disabilities*, 15(5), 6672. doi:10.1177/108835769901400201
- Lazarus, R. S. (2006). *Stress and emotion: A new synthesis*. New York: Springer.
- Lightner, K., Kipps-Vaughan, D., Schulte, T., & Trice, A. (2012). Reasons university students with a learning disability wait to seek disability services. *Journal of Postsecondary Education and Disability*, 25(2), 145-159.
- Lord, C., Elsabbagh, M., Baird, G., & Veenstra-Vanderweele, J. (2018). Autism spectrum disorder. *Science Direct*, 392(10146), 508.520. doi:10.1016/S0140-6736(18)31129-2
- Lovett, B., & Leja, A. (2015). ADHD symptoms and benefit from extended time testing accommodations. *Journal of Attention Disorders*, 19(2), 167-172. doi:10.1177/1087054713510560

- Mallett, C. (2016). Truancy: It's not about skipping school. *Child & Adolescent Social Work Journal*, 33(4), 337-347. doi:10.1007/s10560-015-0433-1
- Mathur, S., Jones, R., & Alazemi, S. (2015). A school-wide three-tiered program of social skills intervention: results of a three-year cohort study. *Education and Treatment of Children*, 38(4), 565-586. doi:10.1353/etc.2015.0023
- McGovern, M. (2015). Least restrictive environment: Fulfilling the promises of IDEA. *Widener Law Review*, 21(117), 117-137.
- Morgan, P., Farkas, G., Hillemeier, M., Wang, Y., Mandel, Z., DeJarnett, C., & Maczuga, S. (2019). Are students with disabilities suspended more frequently than otherwise similar students without disabilities? *Journal of School Psychology*, 72(1), 1-13. doi:10.1016/j.jsp.2018.11.001
- Morrissey, T. W., Hutchison, L., & Winsler, A. (2014). Family income, school attendance, and academic achievement in elementary school. *Developmental Psychology*, 50(3), 741-753. doi:10.1037/a0033848
- Ofiesh, N. S. (2007). Math, science, and foreign language: Evidence-based accommodation decision making at the postsecondary level. *Learning Disabilities Research & Practice*, 22(4), 237-245. doi:10.1111/j.1540-5826.2007.00252.x
- Owens, J., & Jackson, H. (2017). Attention-deficit/hyperactivity disorder severity, diagnosis, and later academic achievement in a national sample. *Social Science Research*, 61(1), 251-265. doi:10.1016/j.ssresearch.2016.06.018
- Penney, C. (2018). Rethinking the concept of learning disability. *Canadian Psychology*, 59(2), 197-202. doi:10.1037/cap0000128



- Pufpaff, L., McIntosh, C., Thomas, C., Elam, M., & Irwin, M. (2015). Meeting the health care needs of students with severe disabilities in the school setting: Collaboration between school nurses and special education teachers. *Psychology in Schools*, 52(7), 683-701. doi:10.1002/pits.21849
- Rehabilitation Act of 1973, 29 u.s.c. § 794 et seq.
- Reid, K. (2008). The causes of non-attendance: an empirical study. *Educational Review*, 60(4), 345-357. doi:10.1080/00131910802393381
- Rettew, D., & Pawlowski, S. (2016). Bullying. *Child and Adolescent Psychiatric Clinics of North America*, 25(2), 235-242. doi:10.1016/j.chc.2015.12.002
- Ronfeldt, M., Owens-Farmer, S., McQueen, K., & Grissom, J. (2015). Teacher collaboration in instructional teams and student achievement. *American Educational Research Journal*, 52(3), 475-514. doi:10.3102/0002831215585562
- Sanchez, A., Cornacchio, D., Poznanski, B., Golik, A., Chou, T., & Comer J. (2018). The effectiveness of school-based mental health services for elementary-aged children: A meta-analysis. *Journal of the American Academy of Child & Adolescent Psychiatry*, 57(3), 153-165. doi:10.1016/j.jaac.2017.11.022
- Sheppard, A. (2005). Development of school attendance difficulties: An exploratory study. *Pastoral Care in Education*, 32(3), 19-25. doi:0.1111/j.1468-0122.2005.00338.x
- Schulte, M. (2018). Adult learning degree and career pathways: Allusions to Maslow's hierarchy of needs. *The Journal of Continuing Higher Education*. 66(1), 62-64. doi:10.1080/07377363.2017.1368767

- Sefotho, M. (2015). Mainstreaming disability in education beyond 2015. *South African Journal of Education*, 35(1), 01-08. Retrieved June 15, 2019, from [http://www.scielo.org.za/scielo.php?script=sci\\_arttext&pid=S0256-01002015000100010&lng=en&tlng=en](http://www.scielo.org.za/scielo.php?script=sci_arttext&pid=S0256-01002015000100010&lng=en&tlng=en).
- Skedgell, K., & Kearney, C. (2016). Predictors of absenteeism severity in truant youth: A dimensional and categorical analysis. *American Secondary Education*, 45(1), 46-58.
- Smeets, E., & Roeleveld, J. (2016). The identification by teachers of special educational needs in primary school pupils and factors associated with referral to special education. *European Journal of Special Education Needs*, 31(4), 423-439.  
doi:0.1080/08856257.2016.1187879
- Smith, T. (2001). Section 504, the ADA, and public schools. *Remedial and Special Education*, 22(6), 335-343. doi:10.1177/074193250102200603
- Soodak, L. & Podell, D. (1993). Teacher efficacy and student problem as factors in special education referral. *The Journal of Special Education*, 27(1), 66-81.  
doi:10.1177/002246699302700105
- Spaulding, S., Irvin, L., Homer, R., May, S., Emeldi, M., Tobin, T., & Sugai, G. (2010). School wide social-behavioral climate, student problem behavior, and related administrative decisions: Empirical patterns from 1,510 schools nationwide. *Journal of Positive Interventions*, 12(2), 69-85.
- Spiel, C., & Evans, S. (2014). Evaluating the content of individualized education programs and 504 plans of young adolescents with attention deficit/hyperactivity disorder. *American Psychological Association*, 29(4), 452-468. doi:10.1037/spq0000101

Staudt, M. (2014). The needs of parents of youth who are truant: Implications for best practices. *Best Practices in Mental Health, 10*(1), 47-53.

Stempel, H., Cox-Martin, M., Bronsert, M., Dickinson, L. M., & Allison, M. A. (2017). Chronic school absenteeism and the role of adverse childhood experiences. *Academic Pediatrics, 17*(8), 837-843. doi:10.1016/j.acap.2017.09.013

Stridsman, C., Dahlberg, E., Zandren, K., & Hedman, L. (2017). Asthma in adolescence affects daily life and school attendance – two cross-sectional population-based studies 10 years apart. *Nursing Open, 4*(3), 143-148. doi:10.1002/nop.2.77

Thapar, A., Cooper, M., & Rutter, M. (2017). Neurodevelopmental disorders. *The Lancet Psychiatry, 4*(4), 339-346. doi:10.1016/S2215-0366(16)30376-5

The editors of the Encyclopedia Britannica (2018, October 22). Diabetes mellitus. Retrieved from <https://www.britannica.com/science/diabetes-mellitus>.

Tkachyk, R. E. (2013). Questioning secondary inclusive education: Are inclusive classrooms always best for students? *Interchange, 44*(1-2), 15-24.

U.S. Department of Education. (2016). Chronic absenteeism in the nation's schools. Retrieved from <http://www2.ed.gov/datastory/chronicabsenteeism.html>.

Van Eck, K., Johnson, S., & Bettencourt, A. (2017). How school climate relates to chronic multi-level latent profile analysis. *Journal of School Psychology, 61*(1), 89-102. doi:10.1016/j.jsp.2016.10.001

Virginia Department of Education. (n.d.). *Attendance and truancy*. Retrieved from <http://www.doe.virginia.gov/support/prevention/attendance-truancy/index.shtml>

Virginia Department of Education. (2016, November 30). *Definitions*. Retrieved from <https://law.lis.virginia.gov/admincode/title8/agency20/chapter730/section10/>

- Virginia Department of Education, Division of Special Education Services. (2009). *Section 504: Keys to implementation in Virginia's schools*. [PowerPoint Slides]. Retrieved from [http://www.doe.virginia.gov/special\\_ed/tech\\_asst\\_prof\\_dev/section\\_504\\_implementation\\_va.pdf](http://www.doe.virginia.gov/special_ed/tech_asst_prof_dev/section_504_implementation_va.pdf)
- Visser, S., Kramer, D., Snyder, A., Sebian, J., McGiboney, G., & Handler, A. (2015). Student-perceived school climate is associated with adhd medication treatment among adolescents in Medicaid. *Journal of Attention Disorders*, 23(3), 1-12.  
doi:10.1177/1087054715569601
- Vygotsky, L. S. (1978) *Mind in Society: The development of higher psychological processes*, trans. M.M. Cole, Luria A. R. Lopez–Morillas & J. Wertsch, Harvard University Press, Cambridge, MA.
- Wang, W., Vaillancourt, T., Brittain, H. L., McDougall, P., Krygsman, A., Smith, D., Cunningham, C., Haltigan, J. D., & Hymel, S. (2014). School climate, peer victimization, and academic achievement: Results from a multi-informant study. *School Psychology Quarterly*, 29(3), 360-377. doi:10.1037/spq0000084
- Weber, M. C. (2010). A new look at Section 504 and the ada in special education cases. *Journal on Civil Liberties & Civil Rights*, 16(1), 1-27.
- Weber, M. (2012). Procedures and remedies under Section 504 and ada for public school children with disabilities. *Journal of the National Association of Administrative Law Judiciary*, 32(2), 612-647.
- Weber, M. C., Mawdsley, R. D., & Redfield, S. E. (2004). *Special education law: Cases and materials*. Newark, NJ: LexisNexis.

- Wroblewski, A., Dowdy, E., Sharkey, J., & Kim, E. (2019). Social-emotional screening to predict truancy severity: Recommendations for educators. *Journal of Positive Behavior Interventions*, 21(1), 19-29. doi: 10.1177/1098300718768773
- Zee, M., Jong, P., & Koomen, H. (2017). From externalizing student behavior to student-specific teacher self-efficacy: The role of teacher-perceived conflict and closeness in the student-teacher relationship. *Contemporary Educational Psychology*, 51(1), 37-50. doi:10.1016/j.cedpsych.2017.06.009
- Zirkel, P., & Weathers, J. (2014). Section 504-only students. *Journal of Disability Policy Studies*, 26(3), 184-193. doi:10.1177/1044207314543560
- Zirkel, P., & Weathers, J. (2016). K-12 students eligible solely under Section 504: Updated national incidence data. *Journal of Disability Policy Studies*, 27(2), 67-75. doi:10.1177/1044207315626115

## APPENDIX A



SCHOOL ADMINISTRATION BUILDING

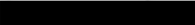


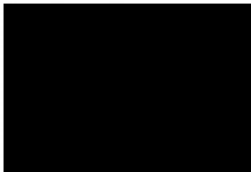
April 9, 2018

Dear Jeffrey Guerin,

Based on my review of your research proposal, I give permission for you to conduct the study entitled: The Effectiveness of Section 504 Plans on Elementary Students as it Relates to Student Attendance. As part of this study, I authorize you to use archival data containing attendance for elementary students with and without Section 504 Plans, with the names of participants being anonymous for purposes of the study.

We reserve the right to withdraw from the study at any time if our circumstances change. I confirm that I am authorized to approve research in this setting.

I understand that the data collected will remain entirely confidential, and may not be provided to anyone outside of the research team without permission from the Liberty University IRB and 



## APPENDIX B

---

# LIBERTY UNIVERSITY

## INSTITUTIONAL REVIEW BOARD

October 21, 2019

Jeffrey M. Guerin

IRB Application 4035: The Effect of Section 504 Plans on Elementary Student Attendance

Dear Jeffrey M. Guerin,

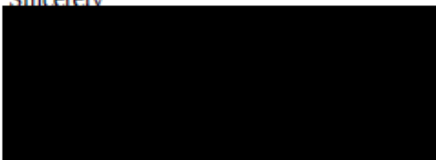
The Liberty University Institutional Review Board has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and finds your study does not classify as human subjects research. This means you may begin your research with the data safeguarding methods mentioned in your IRB application.

Your study does not classify as human subjects research because it will not involve the collection of identifiable, private information.

Please note that this decision only applies to your current research application, and any changes to your protocol must be reported to the Liberty IRB for verification of continued non-human subjects research status. You may report these changes by submitting a new application to the IRB and referencing the above IRB Application number.

If you have any questions about this determination or need assistance in identifying whether possible changes to your protocol would change your application's status, please email us at [irb@liberty.edu](mailto:irb@liberty.edu).

Sincerely,



**LIBERTY**  
UNIVERSITY

*Liberty University | Training Champions for Christ since 1971*