THE RELATIONSHIP BETWEEN TEACHER SELF-EFFICACY AND STUDENT DISCIPLINE REFERRALS WRITTEN BY SECONDARY TEACHERS FROM A RURAL SCHOOL DISTRICT IN A SOUTHERN STATE

by

Edwin Brice Laughter

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

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APPROVED BY:

Jeffrey S. Savage, Ed.D., Committee Chair

Christopher Clark, Ed.D., Committee Member

Sandra L. Battige, Ph.D., Committee Member

ABSTRACT

The purpose of this quantitative correlational study was to determine the strength of the relationship between teacher self-efficacy and discipline referrals. Participants completed the Teachers' Sense of Efficacy Scale, which was used as an operational definition of teacher self-efficacy. A Spearman's correlation coefficient measured the relationship between the predictor variables: classroom management, student engagement, and instructional strategies, and the criterion variable of discipline referrals. Criterion variable data consisted of collected discipline referral records of participants from the participating school district. Data on predictor variables were measured by participant responses on the Teachers' Sense of Efficacy Scale, which include the three subscales that will serve as the predictor variables for this study, and also measured teacher self-efficacy. The population for this study included secondary teachers ($N = 98$) in a rural county school district located in a southern state. The conceptual framework was based on Julian Rotter's human behavior theory of locus of control. By understanding the relationship between teacher self-efficacy and discipline referrals, administrators and school districts may be able to increase teacher retention rates by providing support and training for at-risk teachers. The researcher failed to reject all the null hypothesis tested during this study based on the results of the Spearman's *rho* analysis.

Keywords: self-efficacy, teacher self-efficacy, social cognitive theory, student discipline referrals, student achievement.

Dedication

I would first like to dedicate this dissertation to Christ, my Savior. His strength, guidance, and blessings made this opportunity possible. I would also like to dedicate this work to Rachel, my best friend and wife, for her unwavering love and support that provided the drive and initiative to continue this difficult process. It is also dedicated to my daughters, Cayla and Caitlyn. They only understood Daddy was working and could not play; I pray my efforts serve as an example. My in-laws, Martha, Mike, and Brady, helped take care of my family during this process and provided the time and flexibility to complete this program, and my mother, Peggy, gave me life and unconditional love.

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Although I dedicated this work to God, my wife Rachel, and my family, I would be remiss if I didn't acknowledge the answered prayers and many sacrifices that were made in order for me to realize this dream. I will always love and be grateful to them all. In addition, I want to thank several people who had a direct hand in making this a reality. First, I would like to thank my chair, Dr. Jeff Savage, whose diligent work and support made this journey a manageable and enjoyable process. I feel fortunate God made it possible for me to work with Dr. Savage. His ability to assure me and assist me during this process allowed me to prosper and grow to this point. In addition, I would like to thank Dr. Philip Alsup, who served as my professor in EDU 919, EDU 980, and my Research Consultant during EDU 989. Dr. Alsup's high expectations and expertise pushed me to Doctoral level work. I also want to thank my committee members, Dr. Sandra Battige and Dr. Christopher Clark who provided great knowledge, insight, and support during my time at Liberty University. Finally, I owe debts of gratitude to Mrs. Heather Taylor and Dr. Monica Houston for providing support and mentorship during the dissertation process.

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List of Abbreviations

Los Angeles Unified School District (LAUSD)

National Commission on Teaching and America's Future (NCTAF)

Ohio State Teacher Sense of Efficacy Scale (OSTSES)

Statistical Analysis Software Package (SPSS)

Teachers' Sense of Efficacy Scale (TSES)

Positive Behavioral Interventions and Supports (PBIS)

CHAPTER ONE: INTRODUCTION

Background

The inability to keep qualified teachers in the field of education has become a national concern that has drawn the interest of current research (Sass, Flores, Claeys, & Pérez, 2012). Over the past 40 years, teacher attrition rates have steadily risen from approximately 10% to approximately 25% (Chestnut & Cullen, 2014). The National Center for Educational Statistics stated that attrition for teachers who were new to the field reached almost 50% during a five-year period (Freeman, Simonsen, Briere, & MacSuga-Gage, 2014). In addition, education has a higher turnover rate when compared to other professions such as engineers, lawyers, and nurses (Ingersoll & Strong, 2011).

Classroom management is a major concern for beginning and veteran teachers. In fact, classroom management is the most important factor in determining student achievement and is considered to be among the top three problems in public education (Unal & Unal, 2013). El Amri (2013) stated that a teacher's ability to effectively manage a classroom impacts student achievement; however, many traditional teacher-training courses do not provide extensive classroom management training (El Amri, 2013).

Research on classroom management indicates that suitable and caring environments for students can positively impact behavior outcomes (Hulac, Bernstein, & Vining, 2010). A caring environment in both the classroom and school promotes emotional wellbeing. Also, student achievement can be improved when positive classroom management exists. Caring schools are clearly important in helping students achieve their full potential (Weeks, 2012). Thus, successful teachers must understand the culture of the community that makes up the school (Sieberer-Nagler, 2016). Relationship building may also be a key component to developing a caring

environment. Teachers that incorporate relationship building into their classroom management strategies develop socially accepted behaviors in students (Beaty-O'Ferrall, Green, & Hanna, 2010).

A study conducted on classroom management preparedness determined that fewer than half of all participants considered their preservice teacher education courses helpful in preparing them to handle classroom management situations (Jackson, Simoncini, & Davidson, 2013). Other research stated that 72% of pre-service teachers were unsatisfied with the preparation they received from their teacher education program in classroom management (Eisenman, Edwards, & Cushman, 2015). Thus, pre-service teachers often seek professional development opportunities to further improve their classroom management techniques and effectiveness (Anderson, Barksdale, & Hite, 2004).

Classroom management systems strive to create a culture of learning within a school. However, problems occur when teachers are unsure how to select a classroom management system or how to implement the classroom management system within the learning environment (Garland, Garland, & Vasquez, 2013). Freeman et al., (2014) stated that effective classroom management practices have been identified, but access and training in effective classroom management strategies are limited.

Pre-service teachers understand the importance of classroom management but need guidance in how to become proficient in these skills (Garland et al., 2013). In addition, pre-service teachers place a high value on classroom management skills and classroom management techniques and recognize these skills as the most sought-after resources (Lentfer & Franks, 2015). School principals also perceive teacher preparation courses to be lacking in the area of classroom management (Jackson et al., 2013). Furthermore, school administrators believe

feelings of success and failure in classroom management can determine how pre-service teachers perceive their professional competence (Jackson et al., 2013). However, classroom management continues to receive very little attention as a strategy to enhance student achievement (Eisenman et al., 2015).

Current research indicates that ineffective classroom management is one of the most commonly cited reasons teachers leave the field of education (Unal & Unal, 2013). It has also been suggested that novice teachers exit the profession due to the lack of adequate classroom management training (Malmgren, Trezek, & Paul, 2005). Other research on classroom management issues stated that pre-service teachers are confused about how to discipline students without disrupting the entire class; are shocked by the lack of respect students had for teachers; and are frustrated by the time and energy consumed by classroom management (Berridge & Goebel, 2013). Furthermore, the frustration caused by poor classroom management skills can affect the confidence of teachers, add to low self-esteem, and lead to low self-efficacy (Aloe, Amo, & Shana, 2013).

For teachers to be successful in the classroom, they must have the confidence in their ability to perform (Bandura, 1997). Teacher self-efficacy theory is defined as a teacher's belief in his or her ability to teach a wide range of students and maintain proficiency in all skills required to be a successful educator (Aloe et al., 2013). The origin of teacher self-efficacy theory can be traced to the studies of Julian Rotter and Albert Bandura (Tschannen-Moran, Hoy, & Hoy, 1998). Teacher self-efficacy theory is a relatively new educational research framework that has gained recent momentum and focuses more on teacher well-being than instruction and curriculum (Skaalvik & Skaalvik, 2007). One explanation for the increased interest in teacher self-efficacy is a belief the self-confidence about teaching abilities and skills determines the

teachers' behaviors and actions in the classroom (Zee, Koomen, Jellesma, Geerlings, & de Jong, 2016). In addition, educators with low teacher self-efficacy are more likely to leave the classroom for higher paying jobs than those with higher levels teacher self-efficacy (Perrachione, Petersen, & Rosser, 2008).

Administrators can strive to develop high teacher self-efficacy by providing appropriate professional development opportunities, frequent evaluations, a collaborative environment, mentoring support, and praise for teachers (Bozonelos, 2008). Principals play a vital role in improving teacher retention by reinforcing school culture, offering guidance and support, and providing instructional resources (Hughes, Matt, & O'Reilly, 2015). Research indicates a teacher's decision to stay at a school largely depends upon the principal and his or her leadership (Brown, & Wynn, 2009). In contrast, low teacher self-efficacy can also be attributed to a lack of administrative support. Stipek (2012) stated that principals who present themselves passively and seem unconcerned about staff members promote low self-efficacy in teachers.

High turnover rates in the field of education create teacher shortages, negatively affect the quality of instruction students receive, and has a direct impact on the quality of teaching and student learning (Martin, Sass, & Schmitt, 2012). In addition, high turnover rates force schools to hire a large number of novice teachers, who are less effective than those with more teaching experience (Simon & Johnson, 2015). To meet teacher demand created by high turnover rates, school districts are forced to hire teachers who are out-of-field, untrained in formal education programs, and unprepared to teach (Lambeth, 2012). Teachers who are hired through alternative certification methods may meet the needs of filling the classroom; however, experience in a different field may not correspond with the skills necessary to teach in a classroom (Ladd, 2007).

Therefore, the frequent loss of qualified teachers can negatively impact student achievement (Clandinin, Long, Schaefer, Downey, Steeves, Pinnegar, & Wnuk, 2015).

The cost of teacher attrition has placed a heavy burden on public education (Karsenti, & Collin, 2013). The cost to replace teachers in the United States is estimated to be over two billion dollars annually (Clandinin et al., 2015). Therefore, expanding the research on teacher self-efficacy may help to provide a solution to the problem of teacher attrition. Advanced research that would contribute to a practical solution for high teacher attrition would bring both human and financial benefits to students, parents, taxpayers, businesses, government agencies, and communities as a whole.

Problem Statement

The study of teacher self-efficacy has added significant research to the field of education (Tschannen-Moran, & Hoy, 2001). Teacher self-efficacy has been identified as a predictor of teacher success in the classroom (Walter, 2015). Also, teacher self-efficacy also influences both teacher professional behavior and student performance (Pan, 2014). Furthermore, teachers who have high self-efficacy are more effective teachers and increase student achievement (Bruce, Esmonde, Ross, Dookie, & Beatty, 2010). In contrast, teachers with lower self-efficacy levels believe they have less influence on their students and are less involved in the classroom (Sivri, & Balcı, 2015). Furthermore, teachers with low self-efficacy have a lower chance of obtaining positive student results (García-Ros, Fuentes, & Fernández, 2015).

Lower levels of teacher self-efficacy may also develop when teachers are not prepared to effectively manage a classroom (Abdullah, Samar, & Huda, 2011). Currently, many traditional teacher-training courses do not provide extensive classroom management strategies (El Amri,

2013). As a result, pre-service teachers enter the field of education unprepared to properly manage a classroom (Ikoya & Akinseinde, 2010).

Teacher self-efficacy research has also determined that higher teacher retention rates can be related to higher teacher self-efficacy among general educators (Viel-Ruma, Houchins, Jolivette, & Benson, 2010). However, attrition rates of teachers leaving the field of education is still a major concern for educators (Siwatu, 2011). In fact, attrition rates among teachers who leave the profession prematurely are currently estimated to range between 30% and 50% during the first five years of service (Wang, Hall, & Rahimi, 2015).

Tschannen-Moran, & Hoy (2001) stated that measuring teacher self-efficacy has been difficult. For example, past research in teacher self-efficacy has relied heavily on measuring teacher confidence without taking into consideration that teacher self-efficacy may vary for different skill sets (Sivri & Balcı, 2015). According to Duffin, French, and Patrick (2012), there have been concerns about whether teacher efficacy is a single construct or whether it is comprised of distinct factors.

Research on teacher self-efficacy has continued to increase over the years; however, it has been argued that self-efficacy measures remain theoretical and may be invalid when used to improve teacher education and development (Chesnut & Burley, 2015). This gap in the current literature reveals a need to examine an effective construct to identify teachers who may be deficient or are at risk for low teacher self-efficacy levels. The use of Discipline Referrals as a data source for teacher self-efficacy may provide a more robust construct to measure self-efficacy levels.

Office Discipline Referrals are currently utilized by administrators as a data source to measure implemented behavioral programs and school environment (Pas, Bradshaw, & Mitchell,

2011). In addition, discipline referrals can be easily tracked electronically in large databases and teacher discipline reports (Cash, Bradshaw, & Leaf, 2015). Furthermore, research has determined a high number of discipline referrals written by a particular staff member can highlight the need for professional development activities for that individual (Clonan, McDougal, Clark, & Davison, 2007).

The current study will expand the current research on teacher self-efficacy by determining if a correlation exists between discipline referrals and levels of teacher self-efficacy. Moreover, previous research has determined that teacher efficacy predicts teacher burnout and that educators with a low sense of efficacy are also more likely to leave the teaching profession (Brouwers & Tomic, 2000). However, the current research does not provide a robust construct for identifying low teacher efficacy levels. Therefore, the present study may provide a basis for further research on teacher self-efficacy and the construct of discipline referrals as a possible resource for the problem of teacher attrition.

Purpose Statement

The purpose of this quantitative correlational study is to determine if there is a strong relationship between teacher self-efficacy and student discipline referrals. The criterion variable in this study was discipline referrals, which will be measured in relationship to three predictor variables: student engagement, instructional strategies, and classroom management. The target population for this study included ($N = 98$) secondary teachers in a rural school district located in a southern state. The participants in this study was determined through the use of convenience sampling.

The criterion variable in this study was discipline referrals, measured by office discipline referrals written, and provided by school district data. Data on predictor variables was measured

by participant responses on the Teachers' Sense of Efficacy Scale, which include the three subscales that served as the predictor variables for this study, and also measured teacher self-efficacy. On the scale of measurement, the main predictor variable was made up of the three subscales of student engagement, instructional strategies, and classroom management. Each subscale was analyzed individually.

The subscale of student engagement can be thought of as the participation in educationally effective practices leading to measurable outcomes (Trowler, 2010). Instructional strategies are an additional construct measured by the Teachers' Sense of Efficacy Scale. Merrill & Wood (1974) defined instructional strategies as the order of information presented, and the relationship among the information presented to the student. The final subscale of the Teachers' Sense of Efficacy Scale is classroom management. Christofferson & Sullivan (2015) describe classroom management as a system of proactive and reactive strategies employed to influence the physical and social space of the classroom to foster an environment where learning can occur.

Significance of the Study

Attrition rates of teachers have been identified as one of the leading issues facing education and is credited for teacher shortages around the nation (Chestnut & Cullen, 2014). Higher levels of teacher efficacy have impacted improved teacher retention rates among general educators (Viel-Ruma et al., 2010). Thus, burnout and fatigue among general educators can also be associated with perceived low levels of teacher self-efficacy (García-Ros et al., 2015). Teacher burnout has also been determined to be a contributing factor for teachers leaving the field of education (Brunsting, Sreckovic, & Lane, 2014).

In addition to high attrition and turnover rates, the expense of recruiting and training new teachers may contribute to already tight education budgets (Sass et al., 2012). The National Commission on Teaching and America's Future (NCTAF) estimates that the national cost of public school teacher turnover could be over $7.3 billion a year, which is spent on hiring new teachers to replace those who leave the field (Synar & Maiden, 2012). Lambeth (2012) concluded additional financial losses related to high attrition rates include the cost of training sessions and the experience gained by those teachers. Furthermore, the progress in additional educational programs that could have been established by the teachers leaving education is a tremendous loss (Lambeth, 2012).

Unprepared pre-service teachers' inability to manage a classroom has also had a negative effect on teacher self-efficacy (Yüksel, 2014). Disruptive students can be a contributing source of teacher stress and burnout. High teacher self-efficacy for dealing with classroom management issues can help prevent teacher burnout (Aloe et al., 2013). Furthermore, pre-service teachers' beliefs in their classroom management abilities can be developed even before entering the classroom (Sivri, & Balcı, 2015). Thus, capacity to increase pre-service teachers' self-efficacy in classroom management could prevent future issues when they enter the workforce (Bedel, 2016). Quality education in any country depends on the quality level of its teachers (Dibapile, 2012). Therefore, the importance of adequately trained pre-service teachers is vital in developing high teacher self-efficacy (Sokal, Woloshyn, & Funk-Unrau, 2013).

Pre-service teachers should possess high self-efficacy for teaching and maintain effective classroom management strategies before entering the field (Walter, 2015). Classroom management issues have also been related to teachers who possess low teacher self-efficacy (Yüksel, 2014). Thus, identification of low teacher self-efficacy may allow administrators to

implement intervention strategies to improve teacher performance. Successful interventions may increase teacher retention, reduce classroom management issues, and improve student achievement (Lentfer & Franks, 2015).

Results of this study could increase the existing knowledge on teacher self-efficacy, increase teacher self-efficacy, decrease teacher attrition rates, reduce recruitment and training cost, and provide administrators with a tool for monitoring at-risk teachers. By increasing retention rates amongst teachers, money and valuable resources could be redirected to other financial issues plaguing education (Synar & Maiden, 2012). School districts could focus more on retention and training instead of teacher recruitment.

Research Questions

RQ1: Is there a relationship between secondary teachers' self-efficacy measured by The Teacher Sense of Efficacy Scale and the number of discipline referrals they write as measured by school district data records?

RQ2: Is there a relationship between secondary teachers' classroom management measured by The Teacher Sense of Efficacy Scale and the number of discipline referrals they write as measured by school district data records?

RQ3: Is there a relationship between secondary teachers' student engagement measured by The Teacher Sense of Efficacy Scale and the number of discipline referrals they write as measured by school district data records?

RQ4: Is there a relationship between secondary teachers' instructional strategies measured by The Teacher Sense of Efficacy Scale and the number of discipline referrals they write as measured by school district data records?

Definitions

1. *Classroom Management*- a system of proactive and reactive strategies employed to influence the physical and social space of the classroom to foster an environment where learning can occur (Christofferson & Sullivan, 2015).
2. *Self-efficacy*- people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performance (Bandura, 1986, p. 391).
3. *Teacher self-efficacy*- the extent to which a teacher believes that he or she can teach even the most challenging and unmotivated student, and involves many dimensions of teacher practices (Aloe et al., 2013, p. 105).
4. *Office discipline referrals*- events in which a staff member observes a student violating a school rule and submits documentation of the case to the administrative leadership, who then delivers a consequence to the student (Pas et al., 2011).
5. *Locus of control*- the extent to which individuals believe they can control events affecting them (Rotter, 1966).
6. *Social Cognitive Theory*- is a theory based on self-influenced behaviors that influence one's life circumstances (Bandura, 2002).
7. *Instructional Strategies*- techniques, methods, and skills teachers implement in the process of teaching and learning (Ofodu, 2012).
8. *Student Engagement*- the extent to which students actively engage in thinking, talking, and interacting with the content of a course, other students, and the instructor (Dixson, 2015).

CHAPTER TWO: LITERATURE REVIEW

Introduction

This review of literature chapter will present an overview of the current research and then will describe the study's theoretical framework, to include related theories and their constructs, enabling the reader to understand the context for the theory selected. Research related to teacher self-efficacy will also be included, along with empirical evidence on research relevant to the current study's problem of student discipline referrals.

Overview

The process of educating students begins and ends with the classroom teacher. Research has indicated the classroom teacher is the greatest factor that determines the level of education a student receives and how much students learn (Gilbert & Gilbert, 2013). Teacher confidence and teacher self-efficacy are two characteristics that have been associated with student learning and teacher success (Vadahi & Lesha, 2015). Increasing positive self-efficacy beliefs is one approach teachers can use to improve successful student engagement and learning in their classrooms (Linnenbrink & Pintrich, 2003).

Dibapile (2012) stated that teachers who are not confident in their abilities to be effective with students might create problems in education that are related to classroom management and student achievement. Teachers who lack confidence in their classroom management abilities face behavior problems daily and understand how important classroom management is to achieving educational goals (Brouwers & Tomic, 2000). In contrast, teachers with higher teacher self-efficacy perceive the daily demands of teaching to be less threatening than those teachers who possess self-doubts about their professional performance (Schwarzer, & Hallum, 2008).

Research indicates that students learn more from teachers with high self-efficacy than students learn from teachers who possess low teacher self-efficacy (Çakiroglu, Çakiroglu, & Boone, 2005). In addition, teachers with higher levels of self-efficacy are more open to new ideas and are more willing to experiment and adopt teaching innovations introduced through school reforms (Shaukat & Iqbal, 2012).

Theoretical Framework

Bandura's Theories

Social cognitive theory. Bandura (2002) states that social cognitive theory is based on self-influenced behaviors that influence one's life circumstances. Social cognitive theory addresses the psychological abilities that enable people to interact with their environment, to assign personal meanings to their actions, and to plan a course of action to meet their own goals (Caprara, 2013). Social cognitive theory also explains how people internalize and learn from past experiences (Bandura, 2001). Bandura believes that people make decisions and learn from the repercussions of their actions (Bandura, 1989). Bandura also states that human behavior is self-influenced by becoming one's agent, which means to intentionally influence his or her own life circumstances (Bandura, 2002). Social cognitive theory distinguishes amongst three modes of agency: direct personal agency, proxy agency, and collective agency (Bandura, 2001).

Direct personal agency requires people to directly depend upon themselves and their environment to manage their lives (Bandura, 1989). Individual agency influences motivation and action that enhance a person's self-efficacy beliefs (Bandura, 1997). Personal agency is also considered to possess the most influence over thought and behavior than other types of agency associated with social cognitive theory (Bandura, 2006). Individuals who are very independent and never seem to need assistance are strong personal agents (Bandura, 2002).

Proxy agency suggests that people rely on others to secure desired outcomes (Bandura, 2002). When proxy agency is employed, a person will try to persuade others who have resources, expertise, influence, and power to help him or her obtain the outcomes he or she may desire (Bandura, 2001). Problems may occur when reliance on proxy agency may reduce the number of mastery experiences, which can lead to a decrease in personal self-efficacy (Shields & Brawley, 2006). People who believe they possess coping abilities handle potential threats themselves, whereas those who believe themselves to be less skilled readily yield control to others (Bandura, 1982).

Bandura stated three main reasons why individuals may turn to a proxy agent for assistance: individuals do not possess the means to reach their desired outcomes, individuals believe the proxy can be more effective in achieving the desired outcomes, and others choose to have someone else take control because they do not want to shoulder the responsibility of control (Bray & Shields, 2007). Thus, proxy agency applies to people who desire little control over the processes that affect everyday life (Bandura, 1997).

Collective agency can be described as a group's shared belief in its abilities to organize and execute a course of action to achieve desired results (Fernández□Ballesteros, Díez□Nicolás, Caprara, Barbaranelli, & Bandura, 2002). Collective agency is achieved when people are motivated to work together to achieve what they cannot accomplish on their own (Bandura, 2002). Perceived collective efficacy may also represent the beliefs of group members that an entire organization can achieve success (Bandura, 1997). Bandura (2002) states that collective agency is expected behavior in humans because there are tasks that can only be achieved through teamwork and working with others. For example, perceived collective efficacy within faculty members at a school may refer to the belief that faculty as a whole can have a positive effect on

students (Goddard, Hoy, & Hoy, 2004). Furthermore, when collective efficacy is high within a school, a focus on academic achievement directs the behavior of teachers, helps them be persistent, and reinforces shared beliefs of teachers and students (Hoy, Sweetland, & Smith, 2002).

Bandura later expanded his research on social cognitive theory which evolved into what is currently known as self-efficacy theory (Bandura, 1997). In fact, social cognitive theory provided the framework for self-efficacy theory (Klassen, Bong, Usher, Chong, Huan, Wong, & Georgioue, 2009). Bandura's social cognitive theory has also been given credit for providing the framework for teacher self-efficacy (Tschannen-Moran et al., 1998). Tschannen-Moran et al. (1998) also states that most critics agree that teacher self-efficacy should be aligned with Bandura's perspective based on his self-efficacy research and strong influence in human behavioral study.

Self-Efficacy. Bandura (1986) defines self-efficacy as people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performance (Bandura, 1986). Both positive and adverse consequences of behavior experiences can affect self-efficacy (Bandura, 1997). A person's self-efficacy can also measure how confident a person is in performing a task (Walter, 2015). People who have a strong belief in their abilities approach difficult tasks as challenges rather than threats to be avoided (Bandura, 1989). Furthermore, productive people must have a strong sense of personal efficacy to achieve success because self-doubts can be increased by failure (Bandura, 1989). Whether success is achieved individually or by group members, what is important is that people best use their talents to achieve success (Bandura, 2002).

Bandura stated that self-efficacy of learning can be categorized by enactive mastery,

vicarious experience, verbal persuasion, and emotional arousal (Howardson & Behrend, 2015). These four characteristics of self-efficacy interact together to increase a person's efficacy through various experiences (Bandura, 1982). Experiences in the workplace are also affected by Bandura's four sources of efficacy (Lunenburg, 2011).

Bandura (1982) argued that enactive mastery has the strongest influence on self-efficacy beliefs because successfully mastering a task can produce a large positive effect. Enactive mastery occurs when individuals obtain new knowledge, skills, or abilities after performing a learned behavior which leads to higher efficacy beliefs after successful performance attempts (Bandura, 1997). Achieved success and gained knowledge through performance can raise personal standards and heighten a sense of personal efficacy (Bandura, 1982).

Emotional arousal is similar to enactive mastery in that both are derived from past experience (Howardson & Behrend, 2015). Furthermore, emotional arousal relates more to consequences than results (Bandura, 1997). A person who expects to fail or finds a task to be demanding is likely to experience emotional arousal such as a pounding heart, sweaty palms, and headaches (Lunenburg, 2011). The feelings of joy a teacher experiences from teaching a successful lesson or the stress associated with losing classroom control may be the result of emotional arousal (Tschannen-Moran & Hoy, 2007). Thus, emotional arousal may also be correlated with life experiences rather than learning something new (Bandura, 1997).

Vicarious experience is when people improve their efficacy on a topic by acquiring information through the modeling of others (Goddard, Hoy, & Hoy, 2004). For example, someone may observe an individual successfully perform a task and believe he or she possesses the same ability. In addition, observing others successfully perform a task increases efficacy beliefs about how to perform the task (Bandura, 1997). When observers witness threatening

activities being modeled without adverse consequences, people begin to believe they can achieve the same results if they persist in their efforts (Bandura, 1977).

Bandura stated that verbal persuasion is considered the weakest self-efficacy source because the reinforcement is not as powerful as physically achieving a task (Bandura, 1997). Verbal persuasion is defined as a situation in which a person's efficacy is affected by something that is spoken to him or her (Kıran & Sungur, 2012). Social interaction can influence efficacy beliefs by convincing the individual that he or she possesses or lacks the ability to perform the task (Lunenburg, 2011). Bandura (1997) states that verbal persuasion has the greatest effect on self-efficacy when the information comes from an important source in the individual's social environment. People who lack the ability to self-evaluate personal performances are likely to rely on what others say to them to form their self-efficacy beliefs (Kıran & Sungur, 2012). Therefore, verbal persuasion may not have enduring effects and may only increase self-efficacy for short periods (Bandura, 1997).

As Bandura enhanced his research on self-efficacy theory, he realized the need to expand the original definition to include more than the ability to accomplish a task (Bandura, 1997). Bandura and Wood expanded that definition to include the beliefs in one's ability to mobilize motivation, cognitive resources, and courses of action needed to meet demands (Harrison, Rainer, Hochwarter, & Thompson, 1997). This revision provided insight into a person's ability to use self-reflection to increase self-efficacy (Bandura, 1997).

Self-efficacy advanced into the study of education and was applied to teachers as teacher self-efficacy theory (Tschannen-Moran et al., 1998). Bandura's social cognitive and self-efficacy theories have been more aligned and accepted by critics and researchers as the basis of teacher self-efficacy theory (Tschannen-Moran et al., 1998). Tschannen-Moran et al. (1998) was

able to develop relationships between Bandura's (1997) sources of efficacy and theoretical sources of teacher self-efficacy to predict teacher sense of efficacy and its consequences .

Locus of Control

In locus of control theory behavior is constantly reinforced (Rotter, 1990). A reinforcement following a behavior depends upon whether or not the person perceives a causal relationship between his own behavior and the reward (Rotter, 1966). If a person perceives a reinforcement as contingent upon his or her behavior, then the occurrence of either a positive or negative reinforcement will strengthen or weaken potential for that behavior to recur in the same situation (Rotter, 1990). If a person sees the reinforcement as being outside her own control (i.e., depending on chance, fate, powerful others, or something unpredictable), then the preceding behavior is less likely to be positively or negatively reinforced (Rotter, 1966).

Locus of control refers to a person's beliefs about control over life events (Findley & Cooper, 1983). People either believe they control events themselves or are subjected to external environmental factors beyond their control (Spector, 1982). People who feel personally responsible for their life events are labeled "internals," while others who feel their outcomes in life are determined by forces beyond their control are "externals" (Findley & Cooper, 1983). Internals take a view of self-direction to solve problems, and externals look to others for answers (Spector, 1982).

Internal locus of control. Studies have found positive relationships between internal locus of control and numerous personal characteristics, including self-esteem, self-confidence, leadership, self-efficacy, self-concept, and social responsibility (Algadheeb, 2015). Research has also determined that internal locus of control is related to higher levels of both psychological and physical well-being (Dijkstra, Beersma, & Evers, 2011). Also, good health habits can be related

to internal locus of control and poor health habits to external locus of control (Dave, Tripathi, Singh, & Udainiya, 2011). Internals are more likely to engage in activities that require greater skill and more personal control and that allow them to harness their life experiences (Spector, 1982). Internals are best suited for highly technical jobs, skilled jobs, professional jobs, and managerial or supervisory jobs (Spector, 1982).

External locus of control. External locus of control has been proposed to be related to passivity and learned helplessness (Rotter, 1992). People who are externally motivated will depend upon others for problem solving and motivation (Rogers, 2015). Thus, learned helplessness influences externals to feel their outcomes in life are determined by forces beyond their control (Findley & Cooper, 1983). Externals are more conforming and compliant than internals and are more suited to factory line jobs, unskilled labor, clerical jobs, and jobs of a routine nature (Spector, 1982). Teachers who are externals believe environmental influences control a teacher's ability to impact student achievement and that reinforcement of their teaching abilities lies outside their control (Tschannen-Moran, & Hoy, 2001). Another characteristic of externals is they tend to not take action and may stay in an undesirable position rather than change (Spector, 1982).

Locus of control and teaching stress. External locus of control may be associated with classroom stress (Fimian & Cross, 1986). Teachers who possess an external locus of control are more likely to blame their environment as threatening and may experience greater stress (Kyriacou & Sutcliffe, 1979). High-stress situations cause externals to respond defensively and exhibit less coping behavior than internals, who are more likely to discover successful solutions to problems (Anderson, 1977). Therefore, a correlation between teacher stress and a belief in external control was found to be positive and significant (Kyriacou & Sutcliffe, 1979).

Locus of control and education. Reinforcement, rewards, and gratification are crucial in the acquisition of skills and knowledge (Rotter, 1966). Students with internal locus of control exert greater effort than those with an external locus of control because they believe that they can control academic outcomes (Arslan & Akin, 2014). In addition, students who possess internal locus of control are also believed to have higher levels of mastery achievement, while externals are more likely to display performance avoidance (Kayis & Ceyhan, 2015).

Internal locus of control and academic success have been correlated in previous research (Rinn & Boazman, 2014). Internals are believed to perform better in learning and problem-solving situations than externals (Spector, 1982). Male students are more likely to possess internal locus of control, while most females display high levels of external locus of control (Algadheeb, 2015). Furthermore, gifted students have a significantly higher internal locus of control than both underachieving and non-gifted students (Rinn & Boazman, 2014). Internals are known to be more focused towards achieving goals because they are more likely to believe their efforts will be successful (Spector, 1982).

Locus of control and self-efficacy. Self-efficacy has been proven to be a determinant of behavior and has been found to be a more consistent predictor of behavior than any other motivational construct (Dave et al., 2011). Moreover, environmental controllability has been found to be related to greater self-efficacy (Wood & Bandura, 1989). People who feel they are in control of their environment are considered to possess internal locus of control (Rotter, 1966). Therefore, people with internal locus of control are predicted to possess higher self-efficacy than individuals with external locus of control (Phillips & Gully, 1997).

Related Literature

Teacher Self-Efficacy

Teacher self-efficacy's first research can be linked back to Rotter's (1966) locus of control theory (Duffin, French, & Patrick, 2012). Teacher self-efficacy has been defined as, "the teacher's belief in his or her capability to execute courses of action required to accomplish a specific teaching task in a particular context" (Tschannen-Moran et al., p.233, 1998). Another definition offered to describe teacher self-efficacy is, "the extent to which a teacher believes that he or she is able to teach even the most challenging and unmotivated student, and involves many dimensions of teacher practices" (Aloe et al., 2013, p. 105).

Teachers who have high teacher self-efficacy are more likely to motivate and encourage students, introduce new teaching methods, and form more positive relationships with students **(**Mojave & Tami, 2012). Teacher self-efficacy may also predict teacher burnout, and teachers with a low sense of efficacy are found to be most likely to drop out of the teaching profession (Brouwers & Tomic, 2000).

Characteristics of teachers who are associated with higher levels of teacher self-efficacy strongly impact student achievement and learning in the classroom (Chang, 2015). In contrast, teachers who possess lower levels of teacher self-efficacy may believe that circumstances in the classroom are beyond their control to improve student achievement (Bruce et al., 2010).

Teacher self-efficacy and achievement. Teacher self-efficacy was one of the few teacher characteristics related to student achievement (Armor et al., 1976). Teachers who possess higher levels of teacher self-efficacy positively affect students by being persistent when lessons do not go smoothly, by being resilient to setbacks, by being less critical of students, and by working longer with students who are struggling (Milner & Hoy, 2003).

In addition, recent research also supports the claim that self-efficacy has an important influence on human achievement in various professions (Kasen et al., 2009). Harrison et al.

(1997) state that self-efficacy can be a factor on individual behavior and attitudes in the workplace. Bandura (2002) also states that self-efficacy could predict what careers and jobs people would choose to pursue. For example, if a person believed that a career or profession could not be successfully obtained, he or she would simply discard any notion the career attainment would be possible (Bandura, 2002). Occupational stress can also be related to self-efficacy. This may occur when an individual feels inadequate to hold a position or complete a task necessary for a job requirement (Harrison et al., 1997).

Teacher self-efficacy and classroom management. Classroom management is crucial for providing a safe and conducive learning environment for students (Shoulders & Keri, 2015). Studies have determined that teachers who possess high teacher self-efficacy are more likely to handle student misbehaviors and maintain an orderly class than those who have lower teacher self-efficacy (Aloe et al., 2013). However, low teacher self-efficacy is also a result of discipline and classroom management issues (Dib pile, 2012). Teacher self-efficacy issues related to poor classroom management training lead to high levels of stress and early departures from the teaching profession (Linter & Franks, 2015). Teachers who possess a strong sense of teacher self-efficacy devote more class time to academics and focus less on discipline (Onafowora, 2005). Also, teacher's self-efficacy is correlated to their ability level to manage a classroom (Yüksel, 2014).

The issues with teacher self-efficacy and classroom management may occur very early in the career of pre-service teachers (Jong, Mainhard, Tartwijk, Veldman, Verloop, & Wubbels, 2014). Pre-service teachers are exposed to very little training in classroom management practices (Gaudreau, Royer, Frenette, Beaumont, & Flanagan, 2013). Therefore, the confidence and efficacy levels necessary to adequately manage a classroom may never be developed

(Abdullah et al., 2011). Also, pre-service teachers are not exposed to opportunities to build mastery toward classroom management (Stripling, Ricketts, Roberts, & Harlin, 2008). As a result, low teacher self-efficacy towards classroom management can begin to develop at the outset of a teacher's career (Yilmaz & Cavas, 2008).

Teacher self-efficacy and professional development. Teacher professional development has the potential to incorporate the four main sources that influence teacher self-efficacy (Sandholtz & Ringstaff, 2014). Professional development is also found to be an important variable within the process of career development (Dave et al., 2011). Professional development opportunities are provided in education so teachers can stay current with teaching techniques and enhance skills they perceive as weaknesses (Alibakhshi & Dehvari, 2015). Bruce et al. (2010) state that teacher self-efficacy can be connected to a teacher's professional development opportunities and that teacher self-efficacy can be cultivated and improved as teacher's progress through their careers.

Research has determined that support in the first years of teaching could be critical in the development of teacher efficacy and is related to Bandura's theory of self-efficacy, which suggests that efficacy may be more successfully developed early in a teacher's career (Tschannen-Tschannen-Moran & Woolfolk-Hoy, 2002). Professional development opportunities offered to novice teachers should be current, appropriate, and useful. (Lambeth, 2012). Furthermore, professional development opportunities should be aligned with state standards, district initiatives, and include teacher involvement in planning of professional development sessions (Whitworth, & Chiu, 2015). Also, experts believe that ongoing professional development is very important to educators because of rapid changes in technology (Alibakhshi & Dehvari, 2015).

Garland stated that teachers indicated the need for ongoing professional development in the field of classroom management (Garland et al., 2013). Furthermore, teachers experience classroom management problems because of inadequate classroom management training (Putman, 2009). The existing literature states that pre-service teachers who participated in classroom management training courses have a higher teacher self-efficacy when entering the field of education (Yüksel, 2014). Furthermore, teacher self-efficacy beliefs are more easily changed early in the pre-service stage of the careers of new teachers, as opposed to the beliefs of veteran teachers (Gaudreau et al., 2013). This is supported by research which determined that professional development training can enhance a teacher's confidence in his or her ability to be effective in the classroom and may also increase teacher self-efficacy (Bruce et al. 2010).

Empirical Evidence

Rand Researchers

The first research on teacher self-efficacy began when the RAND group was contracted by the Los Angeles Unified School District (LAUSD) to conduct a study to determine what was successful about an elementary reading program that was implemented (Armor et al., 1976). Rotter's Locus of Control theories (1966) served as a theoretical base for RAND researchers during the development of teacher efficacy as a theory (Tschannen-Moran et al., 1998). Rand researchers enhanced Rotter's research and defined teacher efficacy as a teacher's beliefs on whether or not he or she perceives control over the learning situation (Tschannen-Moran, & Hoy, 2001).

Teacher self-efficacy measure originated with the inclusion of two items buried in an extensive questionnaire developed by RAND researchers (Tschannen-Moran, & Hoy, 2001). These two items turned out to be among the most powerful constructs examined by RAND

researchers in their study of teacher characteristics and student learning (Armor et al., 1976). These first two measurement items for teacher self-efficacy proved to be the first measure of teacher self-efficacy theory (Armor et al., 1976).

RAND items determined if a teacher believed student learning and motivation were controlled by the teacher (Henson, 2002). The research determined the higher levels of efficacy the teachers felt, the more their students advanced in reading achievement (Armor et al., 1976). The first question is believed to measure a general sense of teaching efficacy, while the second question was focused upon a teacher's confidence in her personal abilities, training, and experience to overcome external obstacles that might increase student achievement (Lamorey & Wilcox, 2005). Examples of the RAND items are provided below:

Item 1: "When it comes right down to it, a teacher really can't do much because most of a student's motivation and performance depends on his or her home environment." (Armor et al., 1976).

Item 2: "If I really try hard, I can get through to even the most difficult or unmotivated students." (Armor et al., 1976).

Ashton (1984) stated that personal efficacy beliefs were related to teacher answers to RAND items one and two (Ashton, 1984). RAND research results also revealed that a combination of these two factors comprised an overall sense of teacher efficacy (Henson, 2002). Additional results of this RAND research indicated that teacher efficacy was significantly related to increases in student reading achievement, the use of innovations, and increases in met goals (Tschannen-Moran et al., 1998). Furthermore, the RAND items used in the LAUSD reading achievement studies served as a guide for teacher self-efficacy research during the late 1970s and early 1980s (Henson, 2002). One aspect of efficacy beliefs not ostensibly research by RAND but

which is important for this study's consideration of discipline referrals is classroom management

Classroom Management

Classroom management is an important skill that must be learned by one planning to be a successful classroom teacher (Sivri, & Balcı, 2015). In fact, classroom management has been cited as the most important factor that influences student learning and engagement (Johansen, Little, & Akin-Little, 2011). Spilt, Koomen, & Thijs (2011) stated that teachers and students both benefit from positive student behavior and that positive relationships lead to positive classroom environments and positive student behaviors. Properly managed classrooms inspire teachers to become more motivated and improve their job performance, which increases job satisfaction and work attitude (Split et al., 2011).

Proper classroom management training may also be an important factor to reduce the rate of new teachers who leave the field. For example, pre-service and experienced teachers have expressed a desire to receive classroom management training and strategies (MacSuga-Gage, Simonsen, & Briere, 2012). Current research highlighted that 33% of all beginning teachers in the public school system leave the profession within the first three years of teaching and the number increases to nearly 50% before their fifth year in the classroom (Pearman & Lefever-Davis, 2012). In other research, out of 5,000 American and Canadian teachers, 63% reported student discipline problems as the biggest factor affecting stress and motivation (Brouwers & Tomic, 2000). This data reinforces beliefs that the turnover rate for teachers with less than five years of experience is a growing concern, requires the attention of future research, and that a need exists to better understand how teacher education programs should be developed (Pearman & Lefever-Davis, 2012).

Teachers who leave the field of education early frequently state that poor training and

student behavior issues are reasons for their change in career (Freeman et al., 2014). Furthermore, researchers believe that student misbehavior is the greatest factor that contributes to teacher burnout (Aloe et al., 2013). Other factors for teachers leaving the field of education include increased accountability, pressure associated with high-stakes testing, leaving for higher paying jobs, and other career opportunities (Sass et al., 2012).

A major issue facing education is the cost to replace teachers who leave the field. Research states that high teacher turnover rates in 2007 cost the United States close to $7 billion (Jamil, Downer, & Pianta, 2012). In addition to the financial cost associated with teacher turnover, other losses related to high attrition rates are lost training sessions that have previously been invested in teachers, the experience gained by those teachers, and lost progress in programs that have been established by the teachers leaving education (Lambeth, 2012). The information on turnover rate and the cost associated with this problem reveal that teacher attrition continues to be a major issue in the field of education (Sass et al., 2012).

Classroom Management and Student Achievement.

The teacher's ability to manage a classroom effectively has an impact on student achievement (Shoulders & Krei, 2015). Research indicates that classroom management issues have a causal effect on student achievement (Weeks, 2012). Unal & Unal (2013) stated that classroom management is the most important factor for determining student academic success, and that student behavior is one of the top three perceived problems in public education (Unal & Unal, 2013). Garland also believes that teachers who are skilled in behavior management establish classroom environments that promote learning and higher performance for students (Garland et al., 2013). Academic effectiveness within schools is influenced by the social-behavioral climate at that institution (Spaulding, Irvin, Horner, May, Emeldi, Tobin, & Suguai,

2010). In order for students to achieve their highest academic levels, educators need to create a culture of learning in both their schools and classrooms (Tschannen-Moran & Barr, 2004). Weeks (2012) described the components of a culture of learning as having the following characteristics: an attitude that educators and learners possess towards learning, the level of dedication and commitment within a school, the joint effort of administrators and teachers, the input of educators, the personal characteristics of learners, socioeconomic factors, and other social factors.

Classroom management research also indicates that caring environments for students can also impact student behavior outcomes (Hulac et al., 2010). Therefore, educators must be able to provide a positive classroom environment that is conducive to student achievement (Eisenman et al., 2015). Weeks (2012) stated there is a correlation between student motivation and caring teachers, and that students who believe their teachers care for them are more likely to have good classroom management behaviors and higher academic achievement.

Classroom Management and Environment.

It is of vital importance for pre-service teachers to attain both the skills and the confidence to manage student misbehavior and create a positive, productive classroom environment (Lentfer & Franks, 2015). Recent research shows the importance of positive classroom environments in schools. Pickett & Fraser (2010) states that students' learning and behavior can be greatly affected by the classroom environment which surrounds those (Pickett & Fraser, 2010). Positive classroom management promotes a caring environment in the classroom, promotes emotional well-being, and increases student achievement (Alderman & Green, 2011).

Caring schools are important in helping students achieve their full potential (Weeks, 2012). Pickett states that a classroom environment involves the relationships between the

teachers, students, and other stakeholders within the school (Pickett & Fraser, 2010). When relationships between students and educators are positive, students have a greater chance to succeed (Frisby & Martin, 2010). Teachers who create a sense of community, respond to students' needs, and foster positive relationship are more likely to promote academic success because students are more engaged and excited about learning (Reyes, Brackett, Rivers, White, & Salovey, 2012). As a result of improved relationships, teachers will also experience classroom behavior improvements and reductions in aggression (Alderman & Green, 2011).

MacSuga-Gage, Simonsen, & Briere (2012) stated that teachers with positive classroom environments consistently implemented empirically supported classroom management plans (MacSuga-Gage et al., 2012). MacSuga-Gage (2012) continues by saying that student-teacher relationships will naturally form when teachers implement positive classroom interventions. Other benefits of positive student-teacher relationships are higher student engagement, a focus on teaching, and a positive classroom environment that promotes student achievement (Jong et al., 2014). Student motivation is also higher in a positive classroom environment, which may lead to greater student learning (Harjunen, 2012).

William Glasser's choice theory is the belief that students who have more control over their environment will perform at a higher level (Jones & Jones, 2013). Harjunen (2012) stated that shared power in the classroom between the teacher and students adds to a more enjoyable learning environment. Choice theory stresses the importance of building the relationships between students and teachers to create positive environments (Jones & Jones, 2013). Glasser stated that "boss management" must be replaced with "lead management" in the classroom (Wubbolding, 2007). The main differences between boss management and lead management are that a lead manager seeks to involve students and faculty in decision-making, while boss

managers rely on rewards and punishment to keep control (Wubbolding, p. 254, 2007).

Perceived classroom control may also have an impact on classroom environment (Harjunen, 2012). Glasser's theories suggest that students will more likely buy into the process of teaching and learning when they feel they are a part of the decision-making (Jones & Jones, 2013). Therefore, it is important for teachers to understand the dynamics of a positive learning environment (Harjunen, 2012). In addition, teachers must realize the classroom is a shared environment, not a teacher's domain that students visit (Şahin, Erden, & Akar, 2011).

Classroom Management and Professional Development.

Professional development training in classroom management has a positive influence on classroom management practices for teachers (Johansen et al., 2011). Students in well-managed classrooms are engaged, achieve more academically, have fewer behavioral issues, and receive more instructional time (Marquez, Vincent, Marquez, Pennefather, Smolkowski, & Sprague, 2016). However, teachers with poor classroom management skills often react to student misbehavior by using poor classroom management skills such as verbal reprimands, threats, and embarrassing statements (Reglin, Akpo-Sanni, & Losike-Sedimo, 2012).

The importance of effective classroom management knowledge has been identified; however, this knowledge is rarely discussed in effective professional development training that could be transferred into classroom practice (Marquez et al., 2016). Research determined that U.S elementary teachers indicate the need for more training in classroom management (Johansen et al., 2011). Moreover, most pre-service teachers receive very little preparation in developing classroom management skills and have limited opportunities to practice classroom management strategies before entering the field fulltime (Pankowski & Walker, 2016). Although there is a need to successfully manage students in the classroom, there is a lack of empirically supported

research and professional development programs that address classroom management issues (Gregory, Allen, Mikami, Hafen, & Pianta, 2014).

Instructional Strategies

Instructional strategies are techniques, methods, and skills teachers implement in the process of teaching and learning (Ofodu, 2012). In addition, instructional strategies can be described as chosen methods of how to arrange content, deliver content, and carry out activities that improve learning (Rizwan & Khan, 2015). Therefore, classroom teachers need to be equipped with various instructional strategies to meet the individual needs of each student (Crider, Johnston, Rutledge, Doolittle, & Beard, 2014).

The use of instructional strategies should be part of a teacher's daily routine and should provide a platform for all students to learn and succeed (Lourenco, Goncalves, & Elias, 2015). Effective teachers must engage in quality planning, use proven instructional techniques, and incorporate research-based teaching strategies (Williams, Sullivan, & Kohn, 2012). Instructional strategies focus on student outcomes, the connection between instruction and instructional strategy, and the skills and knowledge taught to achieve desired learning outcomes (Abdelaziz, 2012). Therefore, teacher knowledge is essential for determining the most appropriate strategies for students (Thomas & Green, 2015).

Instructional Strategies and Teacher Self-Efficacy.

Teacher self-efficacy levels are critical in influencing instructional practices (Sandholtz & Ringstaff, 2014). In addition, teacher self-efficacy beliefs have an influence on the teaching processes of planning and selecting instructional strategies (Tarkin & Uzuntiryaki, 2012). Highly effective teachers have confidence in their teaching ability and are more willing to implement and use innovative instructional practices (Shoulders & Krei, 2015). Furthermore,

a teacher's level of efficacy has been found to influence the type of practices used to deliver instruction (Rubie-Davies, Flint, & McDonald, 2012).

Chang, Lin & Song (2011) stated there were two elements of teaching efficacy correlated to instructional strategies. The first is course design and the second is instructional strategies, which are applied by the teacher that provide effective learning (Chang, Lin, & Song, 2011). The teacher is responsible for choosing and implementing instructional strategies and the ability to fulfill this classroom obligation has been associated with higher levels of teacher efficacy (Bedir, 2015). Also, high teacher self-efficacy is a characteristic of teacher professionalism that should be improved through professional development (Holzberger, Philipp, & Kunter, 2013).

Instructional Strategies and Professional Development.

Research has determined that teacher participation in professional development opportunities improve classroom instruction and increase teacher confidence and self-efficacy (Sandholtz & Ringstaff, 2014). This information has led to an increase in teacher interest in professional development opportunities for improved teaching methods and implementation of instructional strategies (Lattuca, Bergom, & Knight, 2014). Furthermore, research has also identified a positive correlation between the amounts of teacher participation in professional development and their use of innovative teaching practices (Sandholtz & Ringstaff, 2014).

The goals for professional development programs are to improve teaching methods, to improve classroom practices, and to improve student achievement (Paik, Zhang, Lundeberg, Eberhardt, Shin, & Zhang, 2011). Effective teacher professional development should be content-based, situated in classroom practice, sustained over time, and focused on preparing teachers to implement instructional strategies and curriculum materials (Zhang, Parker, Koehler, &

Eberhardt, 2015). When teachers participate in professional development, they have the opportunity to observe others model particular teaching strategies (Sandholtz & Ringstaff, 2014).

One of the problems teachers face concerning instructional strategy professional development is that schools often offer general workshops that have very little to do with curriculum components or day-to-day instruction (Zhang et al., 2015). In addition, busy teachers are pressed for time to research adequate and reliable instructional strategies for classroom use (Lewis, Baker, Bueno Watts, & Lang, 2014). Research has also indicated that providing educators with readily accessible professional development opportunities has a greater impact on teacher learning outcomes (Shaha & Ellsworth, 2013).

Instructional Strategies and Students with Special Needs.

The number of U.S. students enrolled in special education programs has risen 30% over the last ten years (Beasley, Gartin, Lincoln, & Penner-Williams, 2013). Diverse classrooms often present teachers with both opportunity and challenge to implement the type of instruction required to meet individual student needs (Thomas & Green, 2015). Classroom teachers are more likely to teach to middle-level students without making accommodations for all student needs (Crider et al., 2014). Furthermore, little research has been conducted to support the assumption that most teachers are adjusting instructional strategies to benefit students with special needs (Beasley et al., 2013).

Research has suggested that students with disabilities are most likely to learn grade-level academic content when general education classroom teachers incorporate and implement instructional strategies that incorporate the supports needed to achieve desired learning goals (Morningstar, Shogren, Lee, & Born, 2015). Therefore, teachers must assess student needs and understand students' academic levels and prior knowledge before choosing instructional

strategies to meet those needs (Thomas & Green, 2015). For example, the U. S. Department of Education (2011) reported that a fourth-grade student at the basic level is not able to interpret character traits in a story: however, a student at the advanced level is able to utilize events in a story to support his or her opinions in the story (U. S. Department of Education, 2011).

Instructional Strategies and Student Achievement.

The emphasis on teacher quality and instruction has been heightened due to high stakes testing associated with No Child Left Behind and Every Student Succeeds legislation and mandates for student performance outcomes; therefore, teachers should use instructional strategies that produce the highest student achievement (Wilson, Rieg, & Brewer, 2013). Using instructional strategies in the classroom has a significant impact on student achievement; consequently, teachers must be thorough when determining which instructional strategies to use and which strategies will advance their students (Thomas & Green, 2015).

Instructional planning works as a bridge between curriculum and instruction (Rizwan & Khan, 2015). Instructional strategies are needed to develop students' beliefs in their abilities to achieve by providing different learning experiences that increase learning success (Stefaniak & Tracey, 2015). Students' learning experiences are affected, positively or negatively, by the way in which they are taught and engaged in the learning process (Wilson, Rieg, & Brewer, 2013).

Instructional Strategies and Student Engagement.

Instructional strategies are an essential part of instruction and can be thought of as the building blocks of a lesson (Rizwan & Khan, 2015). In fact, learning strategies can be used to teach students how to become self-learners (Hughes, 2011). However, instructional strategies that foster higher student engagement were often challenging for some teachers to employ (Shoulders & Krei, 2015). Educational research has determined struggling students have

difficulty connecting new concepts with previously learned material and often become overwhelmed when instruction begins with complex teaching examples (Clarke, Doabler, Nelson, & Shanley, 2015).

Learners are more apt to be motivated to learn the content if they can find significance, relevance, and the ability to relate the instructional material to their everyday lives (Thomas & Green, 2015). Instructional strategies such as choral responding, response cards, and guided notes have been found to be highly effective in increasing student engagement during group instruction (Konrad, Helf, & Joseph, 2011). Furthermore, research has determined that well-planned lessons and instructional approaches prevent off-task behaviors and disruptive student behavior (Martin et al., 2012). Classroom experiences need to engage students with a multitude of activities such as choral response, response cards, and guided notes (Konrad et al., 2011).

Student Engagement

Student engagement is the extent to which students actively engage by thinking, talking, and interacting with the content of a course, other students, and the instructor (Dixson, 2015). Correlations have shown a link between student engagement, student behavior, and academic achievement (Sullivan, Johnson, Owens, & Conway, 2014). Research has determined that teachers can shape student engagement by providing caring environments, structured classrooms, and student support (Skinner & Pitzer, 2012). Other studies have concluded that measuring student engagement is helpful to identify at-risk students (Fredricks et al., 2011).

Examples of ideal student engagement behaviors include attending school, following teacher instructions, completing assignments, and having a positive attitude about class (Finn & Zimmer, 2012). Students who are actively engaged are attentive, participate in class discussions,

and are motivated to learn (Reyes et al., 2012). In addition, increasing engagement and decreasing disruptive behaviors allow more time for instruction (Reinke et al., 2012).

Student Engagement and Teacher Self-Efficacy.

Teacher self-efficacy for student engagement is a measure of the belief that teachers can encourage student engagement (Van Uden, Ritzen, & Pieters, 2013). Teachers with high self-efficacy consider themselves important and their curriculum meaningful, which motivates students to attend class, show interest in lessons and increase student learning opportunities (Martin et al., 2012). Teacher efficacy beliefs in student engagement can also influence a teacher's approach to instruction and can have an impact on the professional accomplishments of a teacher (Martin et al., 2012). In fact, studies have mentioned that higher levels of teacher self-efficacy are connected to higher levels of student engagement (Van Uden et al., 2013).

Student Engagement and Student Achievement.

Student engagement is fundamental to success and students who reported higher levels of engagement had better school attendance and higher test scores (Konrad et al., 2011). Research has determined there are links between student engagement, learning, and academic achievement (Henrie, Bodily, Manwaring, & Graham, 2015). Student engagement is a major factor in keeping students connected with the course and their learning (Dixson, 2015). However, student engagement begins to decline in adolescence, and by the time students reach high school half report they do not take school seriously (Pianta, Hamre, & Allen, 2012).

Students will not learn unless they are actively engaged with the academic work assigned in the classroom (Skinner & Pitzer, 2012). Therefore, a student's ability to learn is dependent upon the extent that students are engaged in class activities (Reyes et al, 2012). Teachers that provide rich instruction and relevant information are more likely to keep students involved in

learning (Reinke, Herman, & Stormont, 2013). Furthermore, improved student engagement has also been considered as a possible intervention for dropout rates (Fredricks et al., 2011).

Student Engagement and Student Drop-Out Rates.

School dropouts are the consequence of student withdrawal and disengagement from school (Van Uden, Ritzen, & Pieters, 2014). Research has determined that dropping out of school is a process that occurs over many years of disengagement (Landis & Reschly, 2013). Almost one-third of all public secondary students in the United States each year drop out of school (Fall & Roberts, 2012). Furthermore, it is estimated the financial benefit for each additional high school graduate is in excess of $200,000 as a result higher tax revenues and lower spending on health, crime, and welfare (Henry, Knight, & Thornberry, 2012). In addition, poor health, poverty, unemployment, and government dependence have been associated with dropping out of school (Landis & Reschly, 2013).

Often, adolescents who fail to engage in school associate with delinquent friends and participate in problem behaviors (Wang & Fredricks, 2014). Students who are not engaged in school become discipline issues, have lower grades, are less likely to seek higher education opportunities, and are more liable to drop out of school (Reyes et al., 2012). Disengaged students are also more likely to be truant, involved in gangs, and participate unsafe sexual behavior (Furrer, Skinner, & Pitzer, 2014). Furthermore, students who are not engaged in school are resentful and feel incompetent (Skinner & Pitzer, 2012). In addition, disengaged students who are in need of positive relationships, are less likely to form these relationships with their teachers (Van Ulden et al., 2014). The increased interest and growing awareness of the connection between disengagement and dropout rates has led to more data collection and research on student engagement (Fredricks et al., 2011).

Student Engagement and Classroom Management.

Students' engagement, development, and motivation in school can be positively affected when teachers make an effort to form personal relationships with their students (Pianta et al., 2012). The quality of relationships among students and teachers can influence trust and positive classroom environments which improve student engagement (Low, Van Ryzin, Brown, Smith, & Haggerty, 2014). Teachers who establish positive relationships with at-risk students can increase student engagement and positive behaviors (Van Uden, Ritzen, & Pieters, 2014). Also, praise has been shown to increase appropriate behavior and increase academic engagement of students (Reinke et al., 2013).

Discipline Referrals

Office discipline referrals have been described as a process in which a staff member observes a student violating a school rule and submits written documentation of the event to the administrators, who then deliver a consequence to the student (Pas, Bradshaw, & Mitchell, 2011). However, punishing students who violate rules is not the only way to use office discipline referrals. For example, office discipline referrals can be used to select and design intervention programs, to monitor the effectiveness of those programs implemented, and to identify students in need of behavior interventions (Clonan et al., 2007). Furthermore, additional research has indicated office discipline referrals can provide targeted information concerning the types of behavior problems a school may be experiencing (Spaulding, Irvin, Horner, May, Emeldi, Tobin, & Suguai, 2010).

Discipline Referrals and Data Collection.

Office discipline referrals were found to be successful when used as a screening tool for identifying behavior-challenged students within a school climate (Predy, McIntosh, & Frank,

2014). Office discipline referral information can also be used to evaluate how well teachers are following procedure and the school discipline policy (Irvin, Tobin, Sprague, Sugai, & Vincent, 2004). Furthermore, research on office discipline referrals also revealed that when data is collected and analyzed properly, these statistics can be used to predict future discipline problems and academic failure (Predy, McIntosh, & Frank, 2014). Moreover, office discipline referrals data is already accessible to administrators. There is no additional cost to train and monitor at-risk teachers (Pas et al., 2011).

However, the use of office discipline referrals as a measure of school-wide data must be used with caution because school administrators may use discipline referrals differently, and student behavior may result in different responses at different schools (Sugai, Sprague, Horner & Walker, 2000). Other issues with the use of office discipline referrals as a data source are the potential for teacher bias on student behavior, differences in teacher behavior tolerance, and a lack of objective data related to behavior (Clonan et al., 2007). Nevertheless, research supports the use and interpretation of office discipline referrals as a school-wide behavioral climate indicator (Predy et al., 2014).

A major advantage of using discipline referrals in data collection is the information has already been collected and provides an efficient source of information that it is readily and easily available for administrators to access (Sugai et al., 2000). Another advantage of using discipline referrals is the ability to sample behavior that is difficult to observe, such as low-frequency and high-intensity behaviors (Sprague & Horner, 1999). In addition, discipline referral data can be used to answer a broad range of important questions for school support teams searching for intervention programs (Irvin, Horner, Ingram, Sugai, Sampson, & Boland, 2006).

Discipline Referrals and Teacher Bias.

Discipline referral use may be influenced by intentional or unintentional bias on the part of teachers and administrators (Mclntosh, Campbell, Carter, & Zumbo, 2009). Teachers may be reluctant to write discipline referrals: when school administrators perceive the use of discipline referrals as an indicator of poor teaching, if administrators rely on the discipline referral data to determine the success of discipline plans, and if lower discipline referral data are emphasized for reporting purposes (Kern & Manz, 2004).

Another source of teacher bias is the disproportionate use of discipline referrals with students from culturally diverse backgrounds and special education eligibility (McIntosh et al., 2009). Students from minority backgrounds such as African American and Native American often receive higher rates of discipline referrals than other ethnicities (Krezmien, Leone, & Achilles, 2006). Furthermore, African Americans appear to face twice the risk of out of school suspension than other races, and African American students' risk for suspension is almost three times as great as White students (Skiba, Horner, Chung, Rausch, May, & Tobin, 2011). Furthermore, school personnel perceive students of color as not fitting the social and behavioral norms of the school and are subsequently labeled as "dangerous" or "troublemakers" (Fenning & Rose, 2007).

Discipline Referrals and School Climate.

Discipline referral data can be used to help indicate the behavioral climate of schools, track school-wide patterns of problem behavior, help target behavior reforms, and monitor school safety goals (Mclntosh et al., 2009). At the individual student level, discipline data are used to monitor and analyze student problem behavior (Tobin & Sugai, 1999). However, the use of discipline referrals is often associated negative views of school climate and promotes confrontational behaviors between student and teacher (Mitchell & Bradshaw, 2013).

Research has determined that an average of four negative interactions between the student and teacher occur before the student receiving a discipline referral and that confrontations could continue as a result of the referral (Nelson & Roberts, 2000). Similarly, students who engaged in higher levels of disruption and problem behavior perceived their teachers' disciplinary behavior to be more aggressive (Mitchell & Bradshaw, 2013). Therefore, the use of discipline referrals in the classroom could negatively affect students' perceptions of their teachers and may only temporarily reduce problem behaviors (Sugai & Horner, 2006).

Conclusions

A review of the literature initially determined a significant body of research about teacher-self efficacy. However, a gap in the research literature exists with the relationship between discipline referrals, teacher self-efficacy, classroom management, student engagement, and instructional strategies. Pre-service teachers feel unprepared to implement proper classroom management techniques when entering the field due to improper preparation in their teacher education programs (Christofferson & Sullivan, 2015). In addition, foundational research for this study may elude to low confidence levels of experienced teachers' abilities to manage a classroom efficiently.

Preservice teachers believe more exposure to classroom management situations would be beneficial to teacher preparedness when participating in their internships (Christofferson & Sullivan, 2015). Based on the results of the literature review, a warrant exists for a correlational study to determine the strength of the relationships between discipline referrals and teacher self-efficacy, classroom management, student engagement, and instructional strategies.

CHAPTER THREE: METHODS

Design

The present study utilized a correlational research design to determine the strength of the hypothesized relationships that exist between the number of discipline referrals a teacher generates and his or her levels of teacher self-efficacy in classroom management, student engagement, and instructional strategies. An advantage of a correlational study is that it allows a researcher to analyze the relationship between several different variables, as is the case in this study (Gall et al., 2007) while maintaining precision in the linear variables that is lost with group differences designs (Gall et al., 2015). In addition, the resources devoted to this study were limited; therefore, a correlational design was chosen to determine if experimental research is needed to explore the possible causality between the relationships of the variables included in this study (Gall et al., 2007, 2015).

The criterion variable in this study was discipline referrals, correlated with one main predictor variable (teacher self-efficacy), measured through three components of teacher self-efficacy: student engagement, instructional strategies, and classroom management. These three constructs are considered components of teacher self-efficacy as defined by the Teachers' Sense of Efficacy Scale (Tschannen-Moran, & Hoy, 2001). Although correlation studies do not establish a causal relationship between variables, they can determine if relationships are strong enough to test causality through experimental research (Gall et al., 2007, 2015). At present, the amount of current research determining the strength of relationships between the criterion variable and the predictor variables is limited. Therefore, a correlational design relating these variables and thus adding to the body of research in the area of teacher self-efficacy was appropriate for this study (Gall et al., 2007, 2015).

Research Questions

RQ1: Is there a relationship between secondary teachers' self-efficacy measured by The Teacher Sense of Efficacy Scale and the number of discipline referrals they write as measured by school district data records?

RQ2: Is there a relationship between secondary teachers' classroom management measured by The Teacher Sense of Efficacy Scale and the number of discipline referrals they write as measured by school district data records?

RQ3: Is there a relationship between secondary teachers' student engagement measured by The Teacher Sense of Efficacy Scale and the number of discipline referrals they write as measured by school district data records?

RQ4: Is there a relationship between secondary teachers' instructional strategies as measured by The Teacher Sense of Efficacy Scale and the number of discipline referrals they write as measured by school district data records?

Null Hypotheses

$H_0$1: There is no significant relationship between secondary teachers' self-efficacy scores measured by the number of discipline referrals they write, as measured by school district data records.

$H_0$2: There is no significant relationship between secondary teachers' self-efficacy scores as measured by classroom management subscale of the Teachers' Sense of Efficacy Scale and number of discipline referrals they write, as measured by school district data records.

$H_0$3: There is no significant relationship between secondary teachers' self-efficacy scores as measured by student engagement subscale of the Teachers' Sense of Efficacy Scale and number of discipline referrals they write, as measured by school district data records.

H_04: There is no significant relationship between secondary teachers' self-efficacy scores as measured by instructional strategies subscale of the Teachers' Sense of Efficacy Scale and number of discipline referrals they write, as measured by school district data records.

Participants and Setting

The target population for this study included all secondary teachers in a rural county-wide school district located in a southern state. The participants were determined using a convenience sample because data on potential participants were located close to where the researcher resides, and the data on discipline referrals has previously been collected (Gall et al., 2007, 2015). The school district currently employs 2,034 teachers (South Carolina Department of Education, 2016). The school district used in this study serves 32,569 students for all grade levels K-12 (South Carolina Department of Education, 2016). Four schools participating in the study were considered Title 1 (South Carolina Department of Education, 2016). Two schools were awarded Palmetto Gold school honors (South Carolina Department of Education, 2016). The ethnic breakdown for teachers in this district was 58% White, 35% Black, 6% Hispanic and 1% other (South Carolina Department of Education, 2016). Gender demographics for teachers were 56% female and 44% male (South Carolina Department of Education, 2016). Fifty-seven percent of the teacher population possess advanced degrees (South Carolina Department of Education, 2016). Teacher experience levels of the sample population ranged between one and 32 years (South Carolina Department of Education, 2016). The age of teacher participants ranges from 26 to 63 years (South Carolina Department of Education, 2016). Attendance rates for teachers were 94.6%, and 66.1% of teachers are on a continuing contract (South Carolina Department of Education, 2016). The most recent attrition rate reported for teachers in this district was 11.1% (South Carolina Department of Education, 2016). Moreover, the average

salary for teachers in this district was $46,704, which is lower than the state average by $2,460 for districts with similar demographics (South Carolina Department of Education, 2016).

A medium effect size with a statistical power of .7 and an alpha level of $\alpha = .5$ was chosen for this study. Participants were selected using a convenience sample. The population for this study included secondary teachers (N =98) from a rural school district in a southern state. To achieve a medium effect size, with a statistical power of .7, and an alpha level of $\alpha = .5$, a minimum participation of (N >66) is required (Gall et al., 2007, p.145). A small effect size with a statistical power of .7 and an alpha level of $\alpha = .5$, would require (N >616) (Gall et al., 2007, p.145). A large effect size with a statistical power of .7 and an alpha level of $\alpha = .5$; would require (N >23) (Gall et al., 2007, p.145). It is ideal to have a small effect size for a correlational study; however, the required (N >616) cannot be obtained with this sample size (N = 98). A medium effect size (N >66) is considered acceptable for a correlational study (Warner, 2013).

The site was a secondary school from a rural school district located in a southern state. The school involved in the study was identified as School 1. The size of the school was based on attendance zones. School 1 has an attendance of 1,841 students, (South Carolina Department of Education, 2016).

The researcher identified the population and personally introduced participants to specifics of the study during a faculty meeting at each participating school (See Appendix I for Sample Narrative). In addition, potential participants were offered incentives to participate in the study. Each participant who successfully participated in the study was provided a small gift bag of office supplies and was placed in a drawing for a $25.00 gift card. There was a drawing at the research site; therefore, the winner received a gift card. Invitations to participate in the study were also extended and collected in person by the researcher. The researcher was willing

to accept all willing participants who agreed to participate. The decision to accept all who are willing was based on the limited size of the convenience sample (*N*=98) and the fact that a small effect size could not be achieved even if all potential participants in the sample successfully participated (Gall et al., 2007).

The rural school district used in this study has an economy which is currently based on a naval base, manufacturing plants, a small energy co-op, farms, and the school district. The school district is the largest employer in the county; however, the energy and manufacturing companies heavily support the school district. Moreover, this county is the fastest growing county in the state in which it is located. The industrial base is experiencing growth due to manufacturers such as Volvo who is building a new industrial plant in the county. With the addition of four new schools scheduled to be built in the next two years, the size of the school district is also growing. Additional schools are also planned in order to meet further demands of a growing county. It has been suggested at school board meetings that as many as 23 new schools may be needed to meet the needs of this school district in the next decade. Furthermore, the county used in this study is considered the second fastest growing county in the state (U.S Census Bureau, 2016). In addition, it has also been identified as one of the fastest growing counties in the nation (U.S Census Bureau, 2016).

Instrumentation

The Teacher Sense of Efficacy Scale (TSES) self-report questionnaire was completed by volunteer participants to determine the strength of the relationships between the predictor variables (classroom management, student engagement, and instructional strategies) and the criterion variable, discipline referrals. The criterion variable consisted of discipline referral

records written by participants as measured by school district data from the participating schools within the participating school district.

The researcher secured permission from the authors to use the "Teachers' Sense of Efficacy Scale" (Tschannen-Moran, & Hoy, 2001) (see Appendix B for permission letter and Appendix C for email confirmation). Data on predictor variables was measured by participant responses on the TSES (see Appendix D for instrument and Appendix E for scoring information).

Teacher Sense of Efficacy Scale

The Teacher Sense of Efficacy Scale (TSES) was created by Megan Tschannen-Moran, Anita Woolfolk-Hoy, and Wayne K. Hoy (1998). Tschannen-Moran et al. (1998) proposed an integrated model of teacher efficacy because of the conceptual confusion surrounding teacher efficacy and difficulty associated with accurately predicting teacher efficacy. The goals of the scale's creators were to make an instrument that could be useful and generalizable, could measure teacher efficacy and assessments of their competencies across the wide range of activities, and perform daily tasks expected of teachers (Tschannen-Moran et al. 1998). Tschannen-Moran et al. (2001) proposed a model in which teacher self-efficacy can be measured on both the teacher's analysis of the teaching task and the teacher's assessment of personal teaching competence.

The TSES was carefully developed through a series of item development, item selection, and factor analysis-revision cycles, using numerous students and teachers to generate and critique the items (Heneman III et al., 2006). The TSES was examined in three separate studies; in the first study 52 original items were reduced to 32, in the second study the TSES was again reduced to 18 items with three subscales, and in the third study 18 additional items were

developed and tested (Tschannen-Moran et al., 2001). The final instrument has two forms, a long form with 24 items and a short form with 12 items and examines teacher efficacy in three contexts or domains: instructional strategies, classroom management, and student engagement (Tschannen-Moran et al., 2001).

The resulting instrument was examined for reliability and validity, as well as the appropriateness of the new scale for both preservice and in-service teacher populations (See Table 1 for TSES Overall and Subscale Validity and Reliability Measures) (Tschannen-Moran et al., 2001). Research conducted by Heneman III et al. (2006) determined the TSES was the preferred measure of teachers' sense of efficacy due to its replicability, ability to capture the role and behavior of teachers, and predictive capacity for explaining the variance in teacher classroom performance.

The TSES has been widely used and accepted as a reliable scale to measure teacher self-efficacy. Educational researchers Swan, Wolf, and Cano (2011) conducted a longitudinal study to assess changes in teacher self-efficacy beginning with student teaching through the third year of contractual teaching and used the TSES to collect data. The authors determined the TSES provided the most complete teacher self-efficacy measurements (Swan et al., 2011). Teacher self-efficacy research conducted by Nikoopour, Farsani, Tajbakhsh, and Kiyaie (2012) stated the TSES was one of the most widely used and highly reliable scales of teacher self-efficacy. In other teacher self-efficacy research conducted by Pendergast, Garvis, and Keogh (2011), the authors stated the instrument had been previously used with studies involving pre-service teachers and believed the TSES is a reputable instrument for efficacy studies (Pendergast, Garvis, & Keogh, 2011).

The TSES was administered to measure teacher self-efficacy across the subscales of student engagement, instructional strategies, and classroom management. Tschannen-Moran, and Hoy (2001) described the three subscales of instructional strategies, student engagement, and classroom management as the richness of teachers' work and the requirements of good teaching (Tschannen-Moran, & Hoy, 2001). Historically the TSES has been distributed to participants as a hard copy (Tschannen-Moran, & Hoy, 2001). Therefore, the researcher administered the TSES as a hard copy. Time required to complete the TSES is approximately 30 minutes.

The TSES is a 9-point Likert scale with 24 total items: eight questions dedicated to each subscale (Yüksel, 2014). Respondents answer on a scale score ranging from: 1 = nothing; 3 = very little; 5 = some influence; 7 = quite a bit; 9 = a great deal (Fives & Buehl, 2009). The possible score range on the scale was 216 to 24 (Yüksel, 2014). A score of 216 indicates very high teacher self-efficacy; a score of 24 indicates meager teacher self-efficacy score (Yüksel, 2014). The researcher will score results of the TSES subscales according to the instructions and directions of the authors (Tschannen-Moran, & Hoy, 2001) (see Appendix C for scoring information).

Because Tschannen-Moran and Woolfolk Hoy (2001) created the scale in 2001 at Ohio State University, researchers have referred to the scale as the Ohio State Teacher Sense of Efficacy Scale (OSTSES). The scale was tested extensively for validity and reliability through teacher consultations, factor analysis, and comparisons of measures with other teacher self-efficacy scales (Klassen et al., 2009). Validity for the overall scale was verified by a Cronbach's alpha of .94 (Tschannen-Moran, & Hoy, 2001). All subscales were tested for internal validity and reliability. The authors also tested the validity and reliability against existing efficacy scales

during the development stage (Tschannen-Moran, & Hoy, 2001). The alpha levels for the overall scale, as well as each subscale, are listed below in Table 1.

Table 1

TSES Overall and Subscale Validity and Reliability Measures

TSES (OSTES)	Mean	SD	Cronbach's alpha
Overall Scale	7.1	.94	.94
Engagement	7.3	1.1	.87
Instruction	7.3	1.1	.91
Management	6.7	1.1	.90

(Tschannen-Moran, & Hoy, 2001).

The alpha levels indicated in Table 1 indicate acceptable validity and reliability for the overall instrument as well as each subscale (Warner, 2013).

Procedures

The researcher gained approval for the study from the IRB, the local school district, and the corresponding schools (see Appendix A for permission letter). The researcher scheduled an appointment to visit each school's principal at his or her convenience to discuss the possibility of using their facility as a research site. The purpose of the visit was to explain the purpose of the study and determine if it would be possible to conduct research within the school. A copy of the researcher's prospectus was offered to each principal to provide clarity on the purpose of the study and to provide answers to questions or concerns. The researcher then asked permission to use the school as a research site and also asked for permission to pull discipline referral data for any participants who participated in the study (see Appendix B for permission letter).

To secure discipline referral data from personnel records, meet FERPA requirements, and ensured the privacy of the participants, the following procedures and guidelines were met in order to meet the approval of the participating school district. A letter of permission was written to each principal of the participating schools requesting permission to pull the discipline records of each participant who gave consent (see Appendix A for permission letter). This information was then forwarded to the Director of Data Management, who then reviewed the information request, approved the study, and then passed the information to the Chief Academic Officer of the district. Upon approval of the Chief Academic Officer, the request of the researcher was submitted to the School Board of the participating school district for final approval.

Upon approval of the researcher's request to use the school as a research site and to pull discipline referral data from potential participants, the researcher then asked the principal to speak to the faculty about participation in the study. The researcher ensured a schedule that allowed a convenient time to speak to all potential teacher participants. The researcher then provided information that explained the purpose of the study during a presentation to the faculty (see Appendix I for participant narrative).

After the presentation was completed, the researcher then explained the informed consent policy, the purpose of the study, the participant's rights to withdrawal from the study at any time, participation requirements for each participant, risk and benefits of participation, confidentiality and FERPA rights, and possible compensation for participation (see Appendix F for participant consent form). The researcher then asked the potential participants from each district location if they had any further questions about the study. After answering questions about the study and addressing the potential concerns from potential participants, the researcher distributed consent forms to the potential participants and invited those interested to participate in the study.

The researcher manually collected the completed consent forms from each school. Each form collected was placed in an office clasp envelope, which was coded with a letter that represented each research site and a number that represented each participant from each location. These precautions were taken to protect the FERPA rights of the individual and the interest of the university under which the research was conducted. In addition, each envelope was collected in a banker's box that was coded by a random four-digit number that was written in the main color of the of the school's color scheme.

Upon acceptance of the invitation from teachers to participate in the study, the researcher prepared manila envelopes for each individual participant. The envelopes were coded in a way to identify the participant to the researcher but ensured the privacy of each teacher who will participate. Each participant received a coded manila envelope containing four documents: a form for providing demographic information; directions for completing the survey; directions for submitting the completed survey; and the survey (see Appendix G for demographics form). The specifically coded information was hand delivered by the researcher and was retrieved by the researcher once the survey had been completed.

The researcher then inspected each consent form for accuracy and completion. Each application that was not fully completed was destroyed in the researcher's shredder, and the potential participants who did not complete the applications completely were disregarded. The researcher included all willing participants who completed the application process accurately and completely. All consent forms were stored in a locked filing cabinet within the researcher's house to ensure the privacy and FERPA rights of the participants.

The researcher provided participants with specific instructions on how to complete the survey. Once the participants read the directions included in the manila envelope for completing

the survey, they were given one week to complete it. Upon completion, teachers were instructed to place surveys in the office clasp envelopes provided to ensure anonymity. The researcher then placed all collected manila folders from each participant into a banker's box dedicated to each research site.

Participants were asked to complete the long form of the Teacher Sense of Efficacy scale. The long form of Teacher Sense of Efficacy scale is a 24-question, self-report, Likert-type questionnaire that contains eight questions on three subscales (Tschannen-Moran, & Hoy, 2001). The scale was distributed individually to all willing participants at each location. The researcher prepared and coded an office clasp envelope for each participant. The contents of each envelope included the instructions on how to complete the Teacher Sense of Efficacy Scale and what to do with the scale once completed. The participants were directed to complete the scale, and upon completion, placed the instruction pages and the completed scale back into the envelope provided by the researcher, and secure the clasp on the envelope. The researcher collected each envelope individually from each participant and placed them in a banker's box to represent each school. Each banker's box was coded with a random four-digit number that was written in the main color scheme of the school. For instance, if the main color of the school was red, the researcher coded that particular banker's box with a red marker to correspond with that particular research sites.

In addition, demographic information collected included subject taught, gender, years of experience, education level, and ethnicity (see Appendix H for demographic information collected). This information was retrieved personally by the researcher. Because no specific training is necessary for the researcher to administer the TSES, the researcher was able to personally administer surveys to all participants, collect all completed efficacy scales, and place

them in an office clasp envelope. Each envelope was coded with a letter that represented each research site and a number that represented each participant from each location.

In addition, each envelope was collected in a banker's box that was coded by a random four-digit number written in the main color of the of the school's color scheme. The researcher then secured all data collected during the research process in a locked filing cabinet located in the privacy of the researcher's home. Each banker box was coded in a way to ensure the anonymity of each school participating in the study. Identification numbers were assigned to each collected survey through a numerical coding system which will represent the identity of the participant and the corresponding school. Once all data was collected, the data was analyzed for possible linear relationships using the 24th version IBM SPSS software. The participants were then advised to email the researcher upon completion of the survey. The researcher then returned to the research site, collected the surveys, and collected all documents to be returned to the researcher in a secured envelope. Participants who agreed to participate in the study but who did not email the researcher upon completing the survey were reminded by email and phone calls to do so. If these attempts failed, the researcher returned to the research site and personally collected all research information whether the information was completed or not. Information packets that were incomplete were destroyed in a shredder. The discipline referral data was calculated against other collected data to measure the strength of the correlation between discipline referrals and the other constructs of the TSES. The researcher then took the discipline referral data and stored the results in a locked filing cabinet within the researcher's home.

The potential sample population of the district to be studied ($N=98$) did not meet the minimum requirement for a small effect size with a statistical power of .7 and an alpha level of $\alpha = .5$ is ($N>616$) (Gall et al., 2007). Therefore, a medium effect size with a statistical power of .7

and an alpha level of α = .5 (*N >66*) was selected for this study (Gall et al., 2007). Requirements for a large effect size with a statistical power of .7 and an alpha level of α = .5 is (*N>23*) (Gall et al., 2007). To ensure the minimum number of participants for the study, the researcher provided incentives for those who agreed to participate. Teachers who participated in the study received a complimentary gift bag containing various office supplies. Moreover, any participants who fully participated in the study had their names placed in a drawing for a $25 Visa gift card.

Data Analysis

Initially, a Pearson's correlation was proposed for this study. However, after testing for assumptions of the data, a Spearman's rank-order correlation, or Spearman's *rho*, was used to analyze the data based on concerns related to normality and linearity. A Pearson's *r* was initially proposed for this study's data analysis because the researcher measured the strength of relationship between the predictor variable of discipline referrals and the criterion variables of classroom management, student engagement, and instructional strategies. In addition, other researchers conducting similar studies chose to use this statistic for data. For example, Khan (2012) conducted research on the relationship between teachers' self-efficacy and students' academic achievement at secondary level and used the Pearson's *r* to calculate the strength of the relationships (Khan, 2012). Other correlational research measuring the relationship between emotional intelligence and self-efficacy with job burnout among primary school teachers used the Pearson's *r* statistic for analysis (Barari & Barari, 2015). Additional correlational research using the Pearson's (*r*) statistic measured the teacher self-efficacy levels of Oklahoma secondary agricultural education teachers and the use of interactive whiteboards in the classroom (Bunch, Robinson, & Edwards, 2012).

The Pearson's *r* becomes an inaccurate statistic when assumptions are not met. Scores should be normally distributed, free from outliers that impact the data analysis, linearly related, and have homogeneity of variances (Gall et al., 2007). Variable score distributions should meet the assumption of normality (Warner, 2013). The researcher tested for assumptions using a histogram for normality (Warner, 2013) along with P-P normality curve (Warner, 2013). To identify outliers, a box-and-whisker plot was used (Gall et al., 2007), and scatter plots were analyzed to test for linearity and homoscedasticity (Field, 2013; Warner, 2013).

After examining the assumptions tests, a determination was made to re-run the correlations using Spearman's rho, which is more appropriate when data significantly violate one or more assumptions (Field, 2013). Questions about linearity and normality (see results of assumptions testing in chapter 4 for further information and discussion) influenced this decision. Spearman's rho is a non-parametric alternative that does not require variables to meet the assumptions of the parametric Pearson's *r* correlation (Warner, 2013). The Spearman's *rho* test reorders linear data into ranks and assesses the relationship between the ranked order scores of each variable (Field, 2013; Gay & Airasian, 2003). Data analysis was calculated for each null hypothesis using the 24th version of the IBM Statistical Analysis Software Package (SPSS). The results of the calculated *p*-values of Spearman's correlation statistic determined if the researcher was able to reject or fail to reject the null hypotheses.

Summary

The Teacher Sense of Efficacy Scale was used to answer the following research question: Does a significant relationship exist between secondary teachers' self-efficacy scores, as measured by the subscales of the Teachers' Sense of Efficacy Scale of classroom management, student engagement, instructional strategies, and the number of discipline referrals they write, as

measured by school district data records? The target population for this study included all secondary teachers in a rural county-wide school district located in a southern state. A Spearman's *rho* correlation coefficients was used for data analysis to measure strength of the relationships between the predictor variable of discipline referrals and the criterion variables of classroom management, student engagement, and instructional strategies. Results of this study, presented in the next chapter, could increase the existing knowledge on teacher self-efficacy; increase teacher self-efficacy; decrease teacher attrition rates; reduce recruitment and training cost; and provide administrators with a tool for monitoring at-risk teachers.

CHAPTER FOUR: FINDINGS

Overview

The purpose of this quantitative correlational study was to determine the strength of the relationship between teacher self-efficacy and discipline referrals. Participants completed the Teachers' Sense of Efficacy Scale, which was used to measure teacher self-efficacy. A Spearman's *rho* correlation coefficient was produced to measure the strength of relationship between the predictor variables classroom management, student engagement, and instructional strategies, and the criterion variable of discipline referrals. This chapter reviews the research questions, hypotheses, and the results of this study.

Research Questions

RQ1: Is there a relationship between secondary teachers' self-efficacy measured by The Teacher Sense of Efficacy Scale and the number of discipline referrals they write as measured by school district data records?

RQ2: Is there a relationship between secondary teachers' classroom management measured by The Teacher Sense of Efficacy Scale and the number of discipline referrals they write as measured by school district data records?

RQ3: Is there a relationship between secondary teachers' student engagement measured by The Teacher Sense of Efficacy Scale and the number of discipline referrals they write as measured by school district data records?

RQ4: Is there a relationship between secondary teachers' instructional strategies measured by The Teacher Sense of Efficacy Scale and the number of discipline referrals they write as measured by school district data records?

Null Hypotheses

$H_0$1: There is no significant relationship between secondary teachers' self-efficacy scores measured by the number of discipline referrals they write, as measured by school district data records.

$H_0$2: There is no significant relationship between secondary teachers' self-efficacy scores as measured by classroom management subscale of the Teachers' Sense of Efficacy Scale and number of discipline referrals they write, as measured by school district data records.

$H_0$3: There is no significant relationship between secondary teachers' self-efficacy scores as measured by student engagement subscale of the Teachers' Sense of Efficacy Scale and number of discipline referrals they write, as measured by school district data records.

$H_0$4: There is no significant relationship between secondary teachers' self-efficacy scores as measured by instructional strategies subscale of the Teachers' Sense of Efficacy Scale and number of discipline referrals they write, as measured by school district data records.

Descriptive Statistics

Descriptive statistics were calculated for the predictor variables of student engagement, instructional strategies, classroom management and total efficacy scores. In addition, descriptive statistics were calculated for the criterion variable of discipline referrals.

Table 2

Descriptive Statistics for Predictor Variables (*N*=98)

Predictor Variable	Mean	Std. Deviation
Student Engagement	6.65	1.15
Instructional Strategies	7.63	.89
Classroom Management	7.55	.93

Total Efficacy	7.29	.86

Table 3

Descriptive Statistics for Criterion Variable (*N*=98)

Number of Referrals	
Mean	13.44
Median	8.5
Mode	0
Std. Deviation	14.65
Std. Error of Mean	1.48
Minimum	0
Maximum	61

The mean self-efficacy scores for the predictor variables Student Engagement (6.65), Instructional Strategies (7.63), and Classroom Management (7.55) were within one point of each other. This indicated the sample population had average to above average levels of self-efficacy based on a ten-point Likert scale. See Table 2 above for predictor variable mean scores.

The standard deviation for the predictor variables Student Engagement (1.15), Instructional Strategies (.89), and Classroom Management (.93) which indicated the data were closely distributed to the mean (Warner, 2013). In contrast, the standard deviation for the predictor variable was much higher, which indicated the data were not closely distributed to the mean (Warner, 2013).

It is worth noting the mode for the criterion was 0, which determined many of the participants in the population didn't write an ODR. Furthermore, the maximum of ODR's written by a participant was 61, which indicated a wide range of scores. In addition, this wide range of scores could also possibly explain the large variance and standard deviations for the data collected for the criterion variable in this study (Gall et.al, 2007). See Tables 2 and 3 above for the visual output display.

Results

The data for assumptions testing were provided by results of the TSES (Teacher Sense of Efficacy Scale) and previously collected discipline referral data. The researcher reviewed all collected data prior to and after inputting data into IBM Statistical Analysis Software Package (SPSS). Incomplete data were removed from the analysis to limit the possibility of Type I and Type II error (Warner, 2013). Assumptions testing was conducted using IBM SPSS for each hypothesis to ensure normal distribution of both the predictor and criterion variables (Warner, 2013). Histograms, normal P-P plots, scatterplots, and boxplots were conducted on both the predictor and criterion variables to ensure normality and linearity (Warner, 2013). The following figures and tables demonstrate the results of the assumptions testing for each criterion variables and the predictor variable.

Normality

As part of testing for normality of data, diagnostics were run in the form of box-and-whisker charts and scatterplots and to determine the presence of extreme outliers. See Figures 1-9 below for visual output.

Figure 1. Boxplot Student Engagement

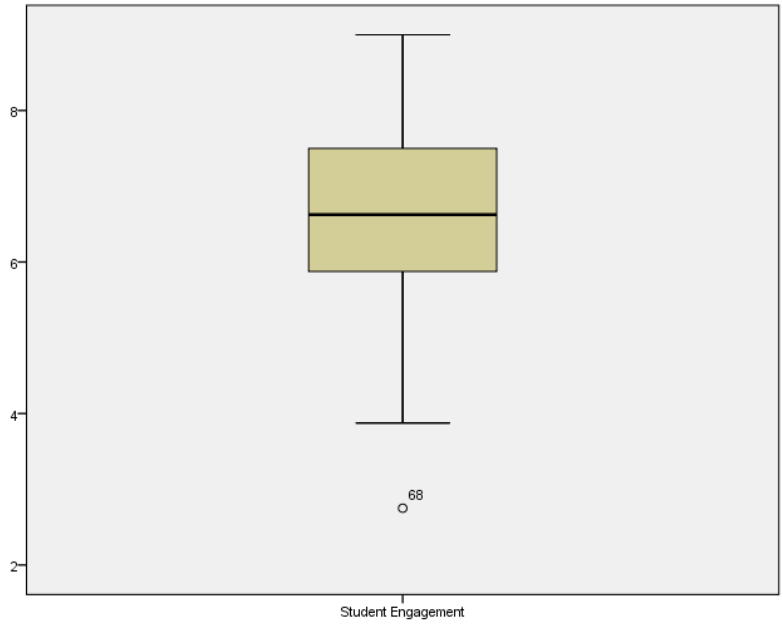


Figure 2. Boxplot of Instructional Strategies

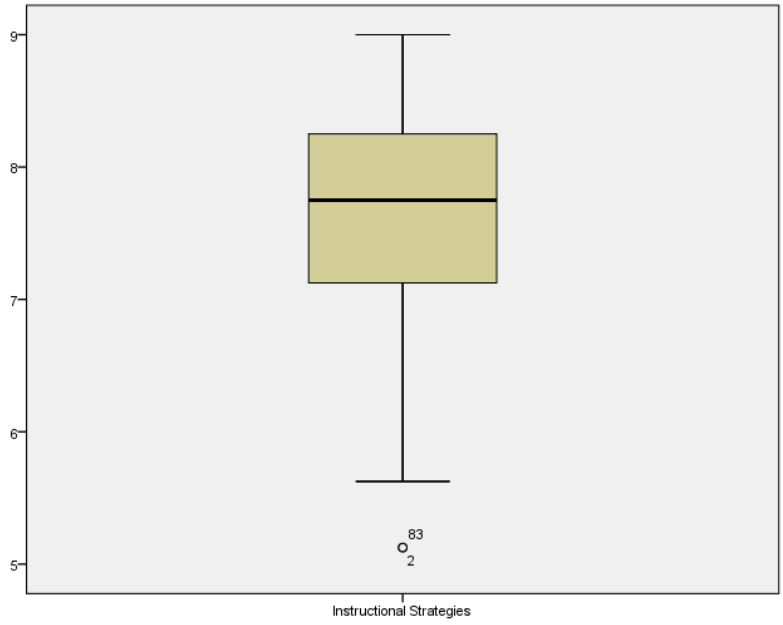


Figure 3. Boxplot of Total Efficacy

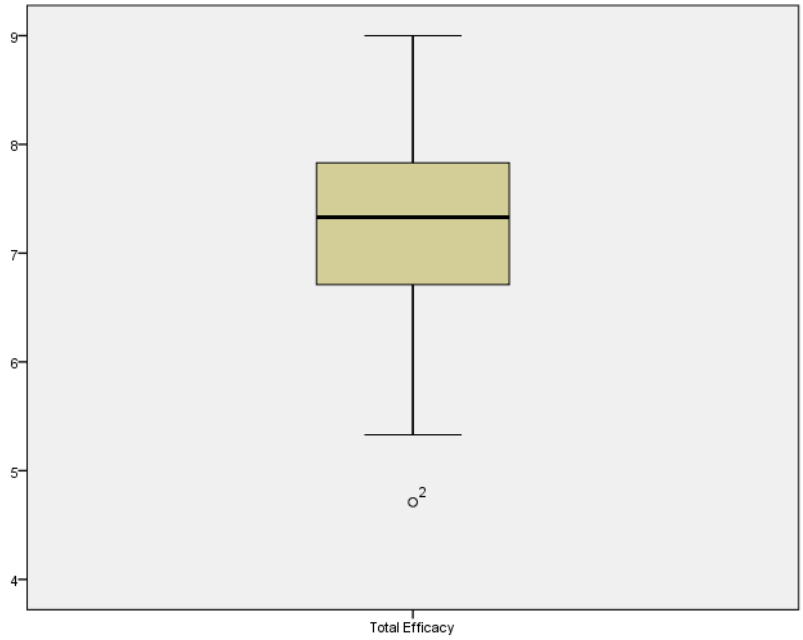


Figure 4. Boxplot of Classroom Management

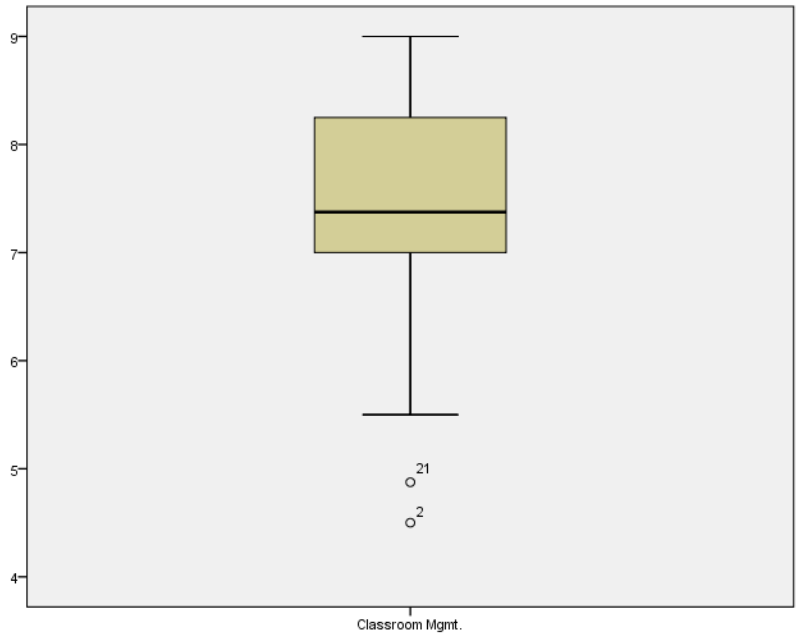


Figure 5. Boxplot of Number of Referrals

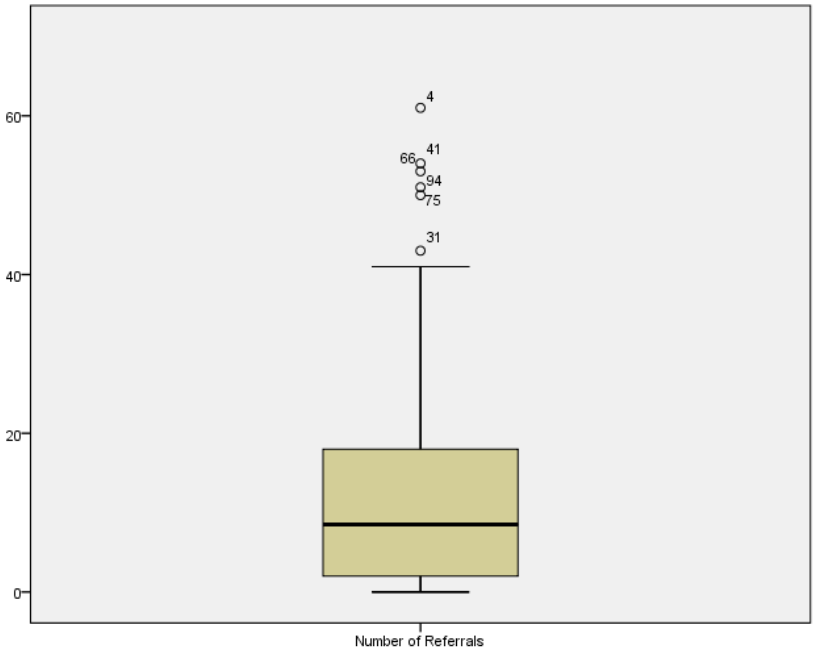


Figure 6. Scatterplot of Student Engagement

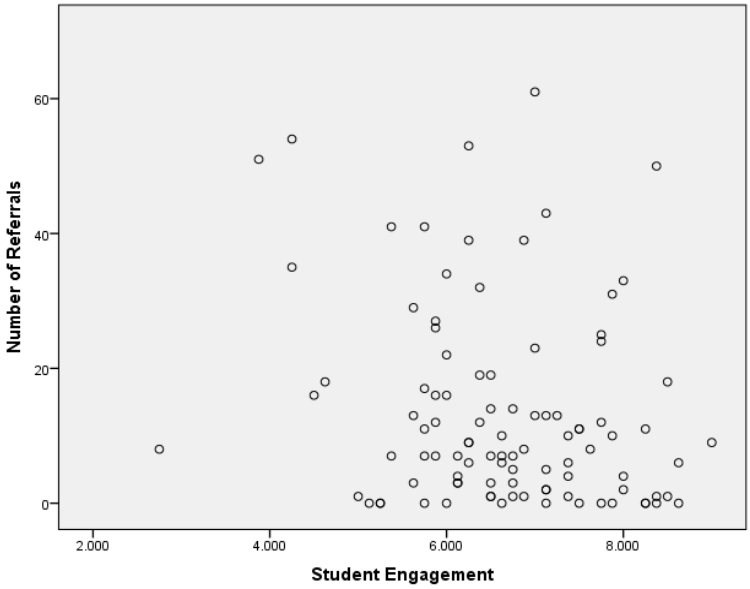


Figure 7. Scatterplot of Instructional Strategies and Number of Referrals

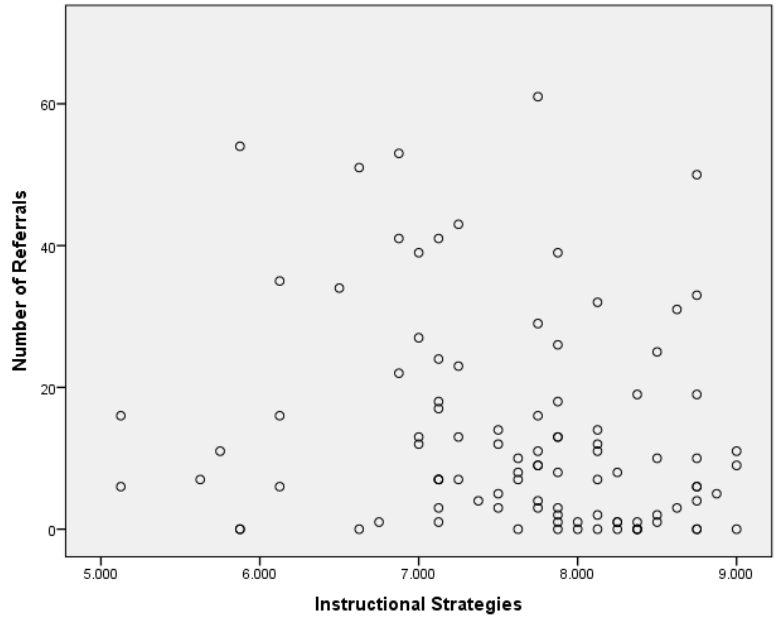


Figure 8. Scatterplot of Classroom Management and Number of Referrals

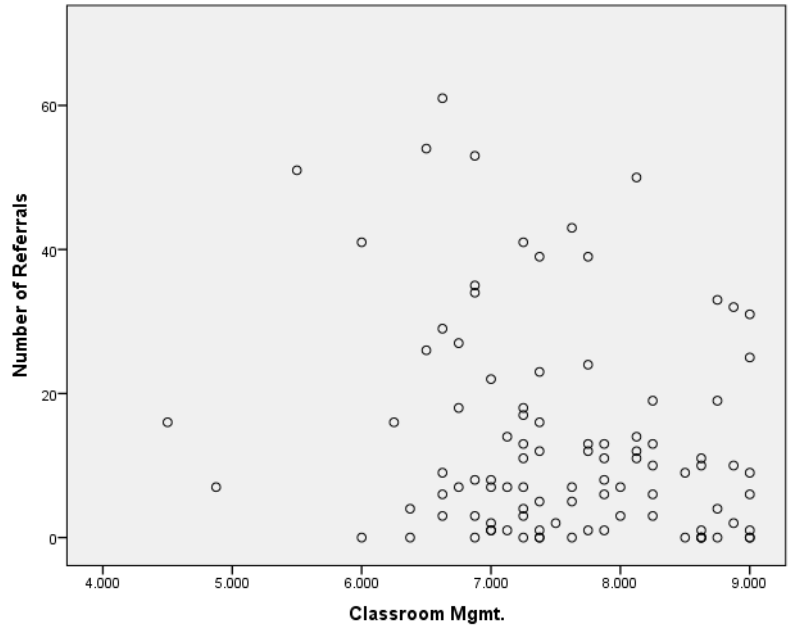
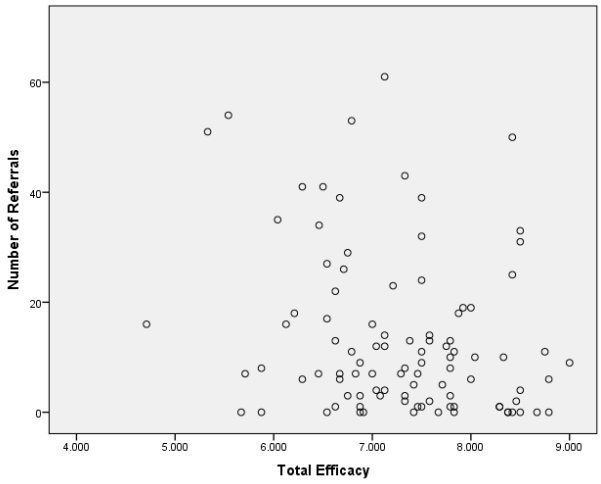


Figure 9. Scatterplot of Total Efficacy and Number of Referrals



Results of the box-and-whisker plots and scatterplot charts determined there were several outliers within the data, therefore, outliers were removed (Warner, 2013). Upon removal of extreme outliers, histogram charts were created for the predictor variables and criterion variable. See figures 10-15 below for visual output.

Figure 10. Histogram of Student Engagement

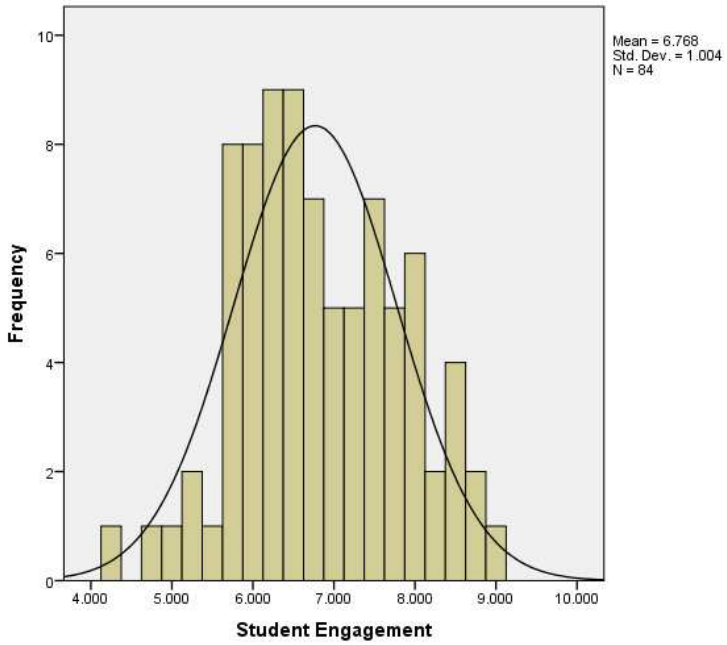


Figure 11. Histogram of Instruction Strategies

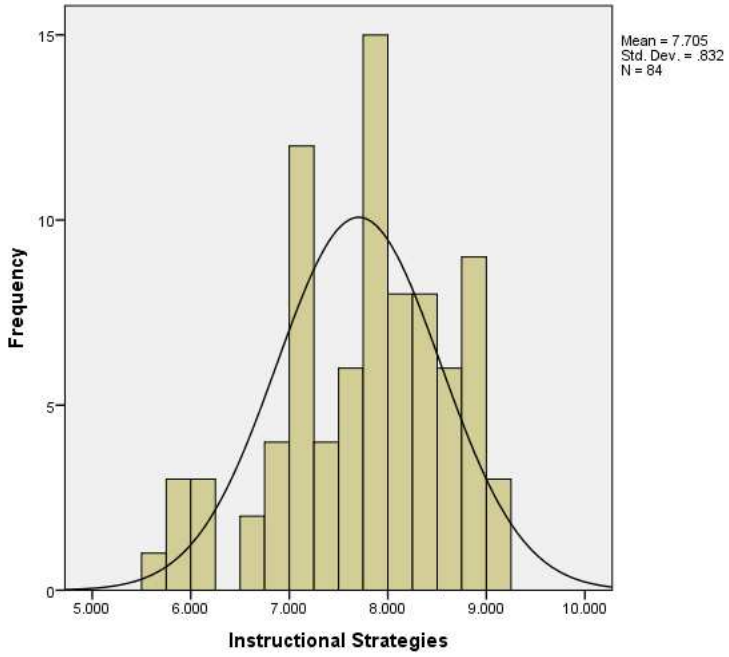


Figure 12. Histogram of Classroom Management

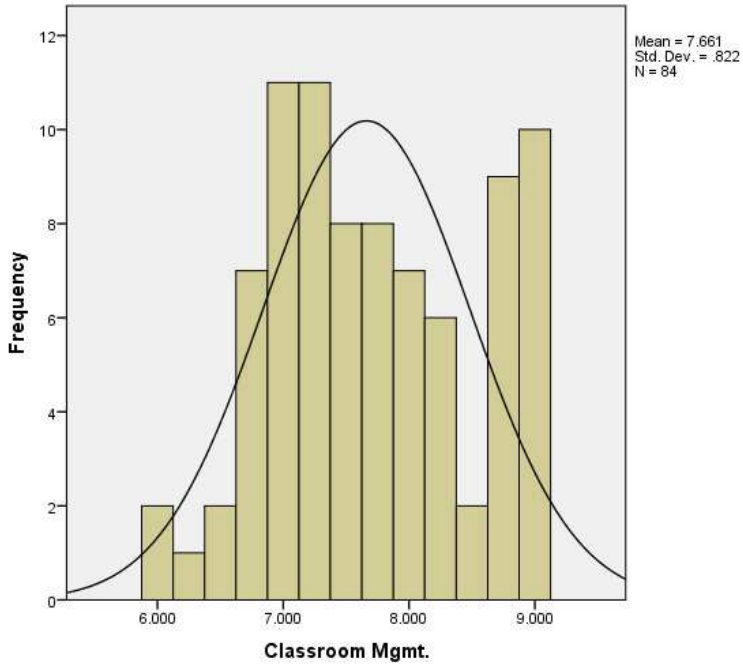


Figure 13. Histogram of Classroom Management

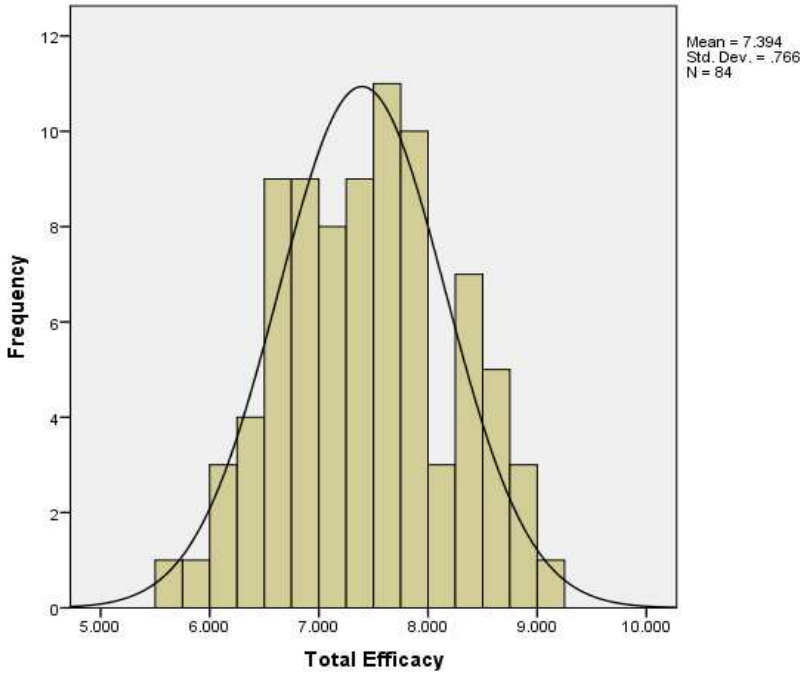
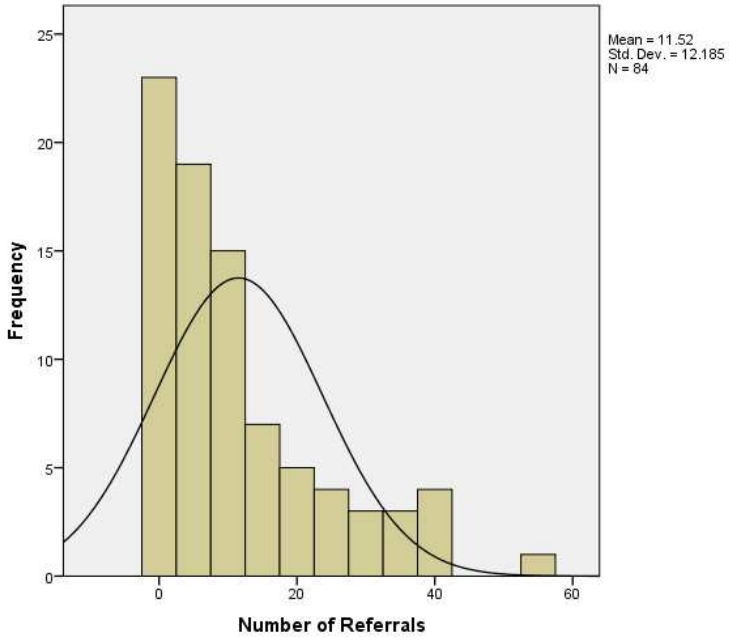


Figure 14. Histogram of Discipline Referrals



Histogram results for the predictor variables of total efficacy, student engagement, and classroom management determined the assumption of normality was met for these variables.

However, results of the histogram for the criterion variable of discipline referrals determined the data for discipline referrals were not normally distributed. Therefore, the assumption of normality was not met for the data set (Warner, 2013). In addition, the results of the P-P plot confirmed the assumption of normality to be non-tenable for this variable. See Figures 14-18 below for the visual output display.

Linearity

Scatterplots and P-P Plots were also used to assess the linear relationship between the variables. According to Warner (2013), scores on the criterion variable should be linearly related to scores on the predictor variable. In addition, a straight line is thought to best describe the relationship between two variables (Gall et al., 2007). Furthermore, when two variables have a strong linear relationship, researchers can determine the values of y change as the values of x increase (Warner, 2013). See Figures 14-18 below for the visual output display.

Figure 15. P-P Plot of Student Engagement

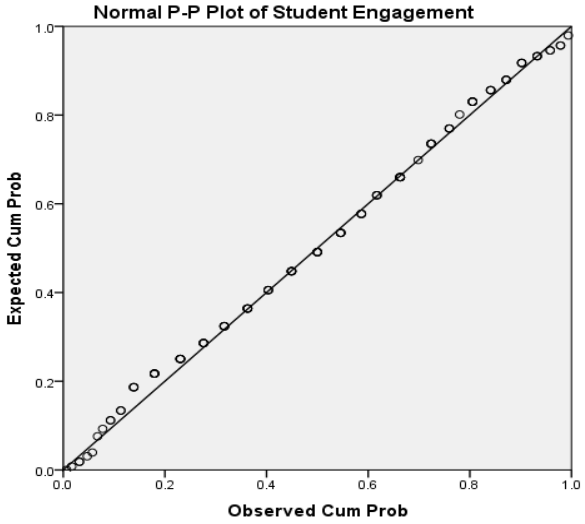


Figure 16. P-P Plot of Instructional Strategies

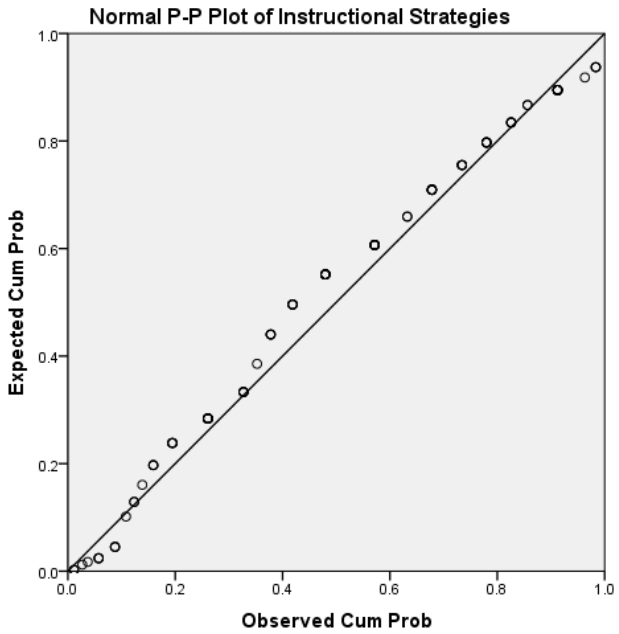


Figure 17. P-P Plot of Classroom Management

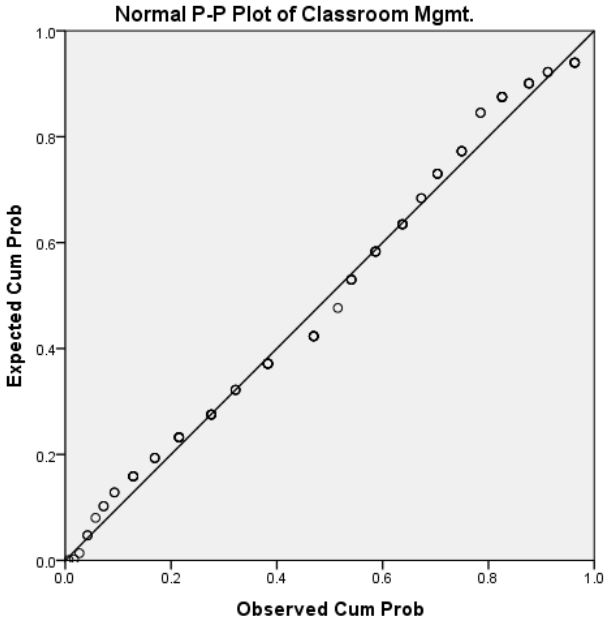


Figure 18. P-P Plot of Student Engagement

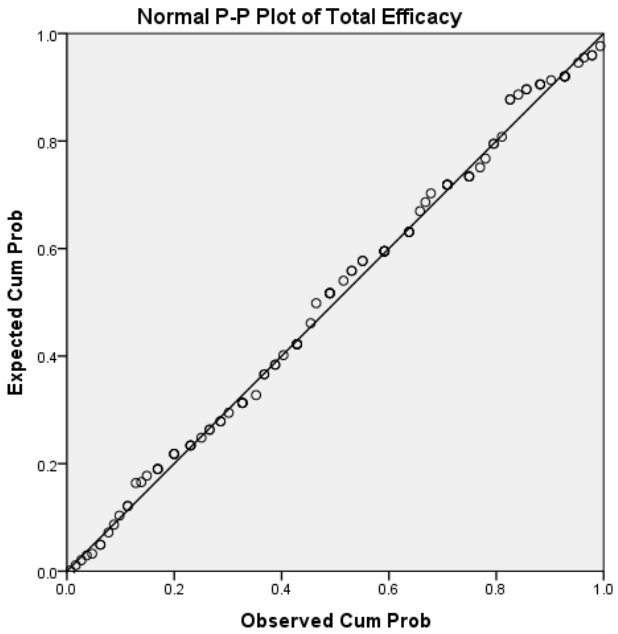
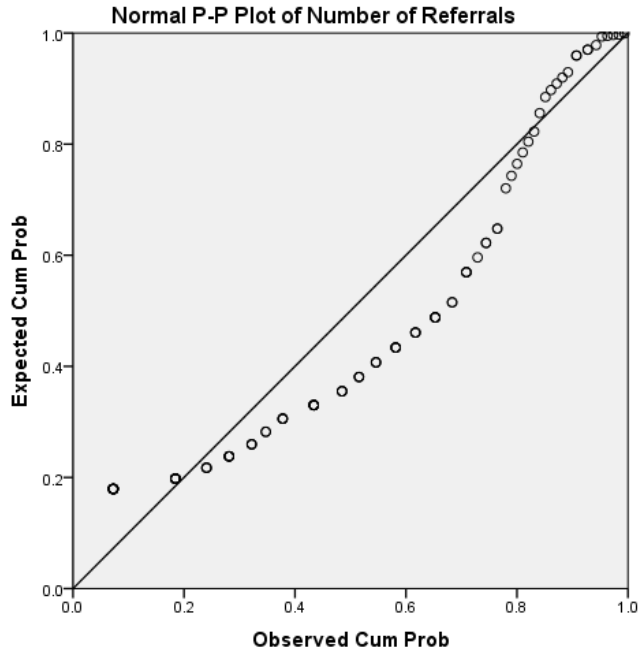


Figure 19. P-P Plot of Number of Referrals



Two variables appeared to be problematic with this assumptions test: instructional strategies and discipline referrals. These variables showed curvilinear relationships. These

curvilinear relationships, combined with the violations of normality for two of the variables, one of which was the criterion variable, influenced the data analysis decision to not conduct a Pearson's *r* correlation. Therefore, a Spearman's *rho* correlational analysis was found to be appropriate for this data set (Warner, 2013).

Warner (2013) stated that Spearman's *rho* is a non-parametric correlation that can be used to assess the strength of relationship between two ordinal variables when problems such as outliers and extremely non-normally distributed data are evaluated. In addition, Spearman's *rho* can be used when tests of normality and linearity have been violated and the researcher finds it necessary to account for non-normal distributions (Warner, 2013). Non-parametric statistics do not require the data to meet the same assumption testing requirements as parametric statistics (Warner, 2013). Warner states that non-parametric tests convert scores to ranks, which prevent outliers from having an impact on test results. Furthermore, the results of the Spearman's *rho* have been found to be equivalent to that of a Pearson's *r* correlation (Warner, 2013).

The Bonferroni procedure was used in this study to limit Type I errors (Warner, 2013). Warner (2013) stated the Bonferroni procedure is appropriate when the researcher conducts several different significance tests. Therefore, the researcher determined the use of a Bonferroni procedure was beneficial for this study.

Null Hypothesis One

$H_0$1: There is no significant relationship between secondary teachers' self-efficacy scores measured by the number of discipline referrals they write, as measured by school district data records.

Because the assumptions of normality and linearity were violated, a Spearman's *rho* was conducted to analyze the data. Spearman's *rho* was performed to determine the relationship

strength between the predictor variable teacher self-efficacy and the number of discipline referrals they write (the criterion variable). Secondary teachers (*N*=98) from a rural school district from a southern state participated in the study. Teacher self-efficacy levels were determined by scores from the Teacher Sense of Efficacy Scale (TSES), which is a self-report Likert type scale. Discipline referral data were obtained from previously collected school district data.

Results of the scatterplot in Figure 8 between the criterion variable of discipline referrals and the predictor variable of total efficacy suggests a weak negative relationship between the predictor variable and each criterion variable (Warner, 2013). A weak negative linear relationship indicated that as teacher self-efficacy increased, the number of referrals written slightly decreased.

The relationship between secondary teachers' self-efficacy scores and discipline referrals was not significant [$p(96) = .238$, $p > .0125$]. The first null hypothesis was accepted.

Null Hypothesis Two

$H_0$2: There is no significant relationship between secondary teachers' classroom management self-efficacy scores as measured by classroom management subscale of the Teachers' Sense of Efficacy Scale and number of discipline referrals they write, as measured by school district data records.

A Spearman's *rho* was performed to determine the level of the relationship between the predictor variable of classroom management efficacy and the number of discipline referrals they write. Secondary teachers (*N*=98) from a rural school district from a southern state participated in the study. Teacher self-efficacy levels were determined by scores from the Teacher Sense of Efficacy Scale (TSES), which is a self-report Likert type scale. Discipline referral data was

obtained from previously collected school district data.

Results of the scatterplot in Figure 9 between the criterion variable of discipline referrals and the predictor variable of classroom management efficacy suggested there was a weak negative linear relationship between the predictor variable and each criterion variable (Warner, 2013). A weak negative linear relationship indicated that as classroom management efficacy increased, the number of referrals written slightly decreased.

The relationship between classroom management and discipline referrals was not significant [p(96) = .-179, p > .0125]. The second null hypothesis was accepted.

Null Hypothesis Three

$H_0$3: There is no significant relationship between secondary teachers' self-efficacy scores as measured by student engagement subscale of the Teachers' Sense of Efficacy Scale and number of discipline referrals they write, as measured by school district data records.

A Spearman's *rho* correlation was performed to determine the level of the relationship between the predictor variable of teacher student engagement and the number of discipline referrals they write. Secondary teachers (*N*=98) from a rural school district from a southern state participated in the study. Teacher self-efficacy levels were determined by scores from the Teacher Sense of Efficacy Scale (TSES), which is a self-report Likert type scale. Discipline referral data were obtained from previously collected school district data.

Results of the scatterplot in Figure 6 between the criterion variable of discipline referrals and the predictor variable of student engagement efficacy suggested there was a weak negative linear relationship between the predictor variable and each criterion variable (Warner, 2013). A weak negative linear relationship would indicate that as teacher classroom management efficacy levels increase, the number of referrals written would slightly decrease.

The relationship between student engagement and discipline referrals was not significant [p(96) = .-208, p > .0125]. The third null hypothesis was accepted.

Null Hypothesis Four

$H_0$4: There is no significant relationship between secondary teachers' self-efficacy scores as measured by instructional strategies subscale of the Teachers' Sense of Efficacy Scale and number of discipline referrals they write, as measured by school district data records.

A Spearman's *rho* correlation was performed to determine the level of the relationship between the predictor variable of student engagement self-efficacy and the number of discipline referrals they write. Secondary teachers (*N*=98) from a rural school district from a southern state participated in the study. Teacher self-efficacy levels were determined by scores from the Teacher Sense of Efficacy Scale (TSES), which is a self-report Likert type scale. Discipline referral data was obtained from previously collected school district data.

Results of the scatterplot in Figure 7 between the criterion variable of discipline referrals and the predictor variable of instructional strategies efficacy suggested there was a weak negative linear relationship between the predictor variable and each criterion variable (Warner, 2013). A weak negative linear relationship would indicate that as student engagement self-efficacy increases, the number of referrals written would slightly decrease.

The relationship between instructional strategies and discipline referrals was not significant [p(96) = .-256, p > .0125]. The fourth null hypothesis was not accepted.

CHAPTER FIVE: DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

Discussion

The purpose of this quantitative correlational study was to determine if a relationship existed between teacher self-efficacy and student discipline referrals. Spearman's *rho* correlation analyses were conducted to assess the hypothesized relationship between the criterion variable of discipline referrals and the predictor variables classroom management, student engagement, and instructional strategies. The criterion variable in this study was discipline referrals, which was measured in relationship to three predictor variables: student engagement, instructional strategies, and classroom management. Criterion variable data consisted of collected discipline referral records of participants from the participating school district. Data on predictor variables were measured by participant responses on the Teachers' Sense of Efficacy Scale, which include the three subscales that will serve as the predictor variables for this study, and also measure teacher self-efficacy. The target population for this study included ($N = 98$) secondary teachers in a rural school district located in a southern state. The participants in this study were determined using convenience sampling. The null hypotheses for this study are listed below.

Null Hypothesis

$H_0$1: There is no significant relationship between secondary teachers' self-efficacy scores measured by the number of discipline referrals they write, as measured by school district data records.

$H_0$2: There is no significant relationship between secondary teachers' self-efficacy scores as measured by classroom management subscale of the Teachers' Sense of Efficacy Scale and number of discipline referrals they write, as measured by school district data records.

$H_0$3: There is no significant relationship between secondary teachers' self-efficacy scores as measured by student engagement subscale of the Teachers' Sense of Efficacy Scale and number of discipline referrals they write, as measured by school district data records.

$H_0$4: There is no significant relationship between secondary teachers' self-efficacy scores as measured by instructional strategies subscale of the Teachers' Sense of Efficacy Scale and number of discipline referrals they write, as measured by school district data records.

Results of all assumption testing conducted for the criterion variable of discipline referrals indicated the assumptions of normality and linearity were not met for the criterion variable. Given the violation of assumptions with the referral variable, a Spearman's *rho* was also conducted for each hypotheses to determine if the violations of assumptions might have an impact on the validity and reliability of the statistical results. The Spearman's *rho* is used when tests of normality and linearity have been violated and the researcher finds it necessary to remove outliers to account for non-normal distributions (Warner, 2013).

Research has suggested possible explanations for the criterion variable of discipline referral data to be non-normally distributed when used in research. Clonan (2007) stated that possible issues with the use of office discipline referrals as a data source are the potential for teacher bias on student behavior, differences in teacher behavior tolerance, and a lack of objective data related to behavior. Teachers may be reluctant to write discipline referrals for at least three reasons: (a) when school administrators perceive the use of discipline referrals as an indicator of poor teaching; (b) if administrators rely on the discipline referral data to determine the success of discipline plans; (c) and if lower discipline referral data are emphasized for reporting purposes (Kern & Manz, 2004). Therefore, teacher reluctance in writing referrals

could be a possible explanation for the high numbers of teachers who wrote very few discipline referrals.

Another problem with discipline referrals may be teacher bias. Teacher bias may be described as the disproportionate use of discipline referrals with students from culturally diverse backgrounds and special education eligibility (McIntosh et al., 2009). Students from minority races and ethnicities, such as African American and Native American, often receive higher rates of discipline referrals than students from other races or ethnicities (Krezmien, Leone, & Achilles, 2006). In addition, African Americans appear to face twice the risk of out-of-school suspension than other races, and African American students' risk for suspension is almost three times as great as White students (Skiba, Horner, Chung, Rausch, May, & Tobin, 2011). Furthermore, teachers who have more minorities in their classes may be found to write more referrals. Therefore, student demographics could provide one possible explanation for the higher numbers of referrals teachers wrote in this study. Other factors could be at play, too, which is why further research will be recommended later that focuses on causal factors and narrative, qualitative data focusing on the lived experiences of students and faculty.

Research Questions

RQ1: Is there a relationship between secondary teachers' self-efficacy measured by The Teacher Sense of Efficacy Scale and the number of discipline referrals they write as measured by school district data records?

RQ2: Is there a relationship between secondary teachers' classroom management measured by The Teacher Sense of Efficacy Scale and the number of discipline referrals they write as measured by school district data records?

RQ3: Is there a relationship between secondary teachers' student engagement measured by The Teacher Sense of Efficacy Scale and the number of discipline referrals they write as measured by school district data records?

RQ4: Is there a relationship between secondary teachers' instructional measured by The Teacher Sense of Efficacy Scale and the number of discipline referrals they write as measured by school district data records?

Research question one was asked to determine if there was a relationship between secondary teachers' total self-efficacy levels measured by The Teacher Sense of Efficacy Scale and the number of discipline referrals they write as measured by school district data records. A weak negative linear relationship did indicate that as teacher self-efficacy increases, the number of referrals written would slightly decrease. However, the Spearman's *rho* results indicated a relationship that was not statistically significant.

These results would be consistent with the findings of Mojavezi & Tamiz, (2012), who stated that teachers possessing higher teacher self-efficacy levels are more likely to motivate and encourage students and form more positive relationships with students. Studies have also determined that teachers who possess high teacher self-efficacy are more apt to handle student misbehaviors and maintain an orderly class (Aloe et al., 2013). Furthermore, teachers who possess a high sense of teacher self-efficacy devote more class time to academics and focus less on discipline (Onafowora, 2005). Therefore, results of this study would indicate teachers with higher self-efficacy levels would be less likely to write discipline referrals on their students.

Dibapile (2012) stated that teachers who are not confident might create problems that are related to classroom management and discipline, which can lead to low teacher self-efficacy. Bruce et al. (2010) stated teachers who possess lower levels of teacher self-efficacy might believe that circumstances in the classroom are beyond their control. Even though self-efficacy

levels have been related to classroom management and discipline issues, the results of this study indicated discipline referrals could only explain a few the changes in teacher self-efficacy levels. Therefore, the researcher failed to reject the null hypothesis based on the results of the Spearman's *rho.*

Research question two was asked to determine if there was a relationship between secondary teachers' classroom management measured by The Teacher Sense of Efficacy Scale and the number of discipline referrals they write as measured by school district data records. A weak negative linear relationship indicated that as classroom management self-efficacy increases, the number of referrals written would only slightly decrease. Also, the correlation between classroom management teacher self-efficacy levels and discipline referrals was not statistically significant when measured by the Spearman's *rho*.

One explanation for the results of this question is that positive intervention strategies are targeting teacher behavior as a means of improving student outcomes and student conduct (Flannery, Fenning, Kato, & McIntosh, 2014). Research has determined that punitive disciplinary measures are linked to poor outcomes for students and that high schools need discipline practices that improve long-term student outcomes (Fenning et.al, 2012). Furthermore, Positive Behavioral Interventions and Supports (PBIS) have demonstrated school-level impacts on student office discipline referrals, suspensions, behavior problems, and school climate (Pas, Cash, O'Brennan, Debnam, & Bradshaw, 2015).

Another explanation for the results of this question would be that schools are making an effort to reduce dropout rates. Almost one-third of all public secondary students in the United States each year drop out of school (Fall & Roberts, 2012). Students who did not complete high school are more likely to be unemployed, receive welfare recipients and make less money on

average than their peers who completed high school (Freeman, & Simonsen, 2015). High school dropouts are also more likely to suffer from depression, join gangs, and serve time in jail (Freeman, & Simonsen, 2015).

Prior research also supports this explanation. Spilt, Koomen, & Thijs (2011) stated that teachers and students both benefit from positive student behavior, positive classroom environments and that properly managed classrooms improve teacher job performance, job satisfaction, and work attitude. Furthermore, students in well-managed classrooms are engaged, achieve more academically, have fewer behavioral issues, and receive more instructional time (Marquez et.al, 2016). Therefore, the researcher failed to reject the null hypothesis based on the results of the Spearman's *rho.*

Research question three was asked to determine if there was a relationship between secondary teachers' student engagement measured by The Teacher Sense of Efficacy Scale and the number of discipline referrals they write as measured by school district data records. A negative linear relationship was determined between the predictor variable of student engagement and the criterion variable discipline referrals. However, the strength of the relationship was determined to be weak. The correlation between student engagement efficacy levels and discipline referrals was also determined not to be statistically significant when using the Spearman's *rho*.

Teachers with high self-efficacy consider themselves important and their curriculum meaningful, which motivates students to attend class, and show interest in lessons (Martin et al., 2012). In fact, studies have mentioned that higher levels of teacher self-efficacy are connected to higher levels of student engagement (Van Uden et al., 2013). Teacher efficacy beliefs in student engagement can also influence a teacher's approach to instruction and can have an impact on the

professional accomplishments of a teacher (Martin et al., 2012). Furthermore, teachers with strong efficacy beliefs use teaching practices that support student engagement, while teachers with lower student engagement efficacy levels reject responsibility for poor engagement and fail to make adjustments to instruction (Bobis, Way, Anderson, & Martin, 2016).

Previous research has indicated there is a relationship between student engagement and student behavior. Students who are engaged behaviorally, cognitively, and emotionally in school are less likely to engage in delinquent activities (Corso, Bundick, Quaglia, & Haywood, 2013). In addition, positive engagement with students can increase behavioral engagement during academic instruction, provide learning opportunities, and promote student participation (Gregory et.al, 2014). Furthermore, other research has established a link between student engagement in learning that directly influences student behavior and academic achievement (Sullivan, Johnson, Owens, & Conway, 2014). Results of this study, and prior research on student engagement, would indicate that teachers with higher levels of student engagement self-efficacy would be less likely to have student discipline problems, or write discipline referrals. Therefore, the researcher failed to reject the null hypothesis based on the results of the Spearman's *rho.*

Research question four was asked to determine if there was a relationship between secondary teachers' instructional strategies measured by The Teacher Sense of Efficacy Scale and the number of discipline referrals they write as measured by school district data records. Results suggested there was a slight curvilinear relationship between the predictor variable of instructional strategies efficacy and the criterion variable of discipline referrals. A slight curvilinear relationship would indicate that as teacher self-efficacy increases, the number of referrals written would slightly decrease up to a certain point, then both variables would begin to increase (Warner, 2013). The Spearman's *rho* correlation between instructional strategies

efficacy levels and discipline referrals indicated a statistically significant relationship. However, the strength of the relationship between discipline referrals and instructional strategy efficacy was determined to be weak.

A Curvilinear relationship between discipline referrals and instructional strategies may be explained by previous research. Research has determined that well-planned lessons and instructional approaches prevented off-task behaviors and disruptive student behavior (Martin et al., 2012). Highly efficacious teachers have confidence in their teaching ability and are more willing to implement and use innovative instructional practices (Shoulders & Krei, 2015). Furthermore, a teacher's level of efficacy has been found to influence the type of practices used to deliver instruction (Rubie-Davies, Flint, & McDonald, 2012).

Educational research has determined struggling students have difficulty connecting new concepts with previously learned material when instruction begins with complex teaching examples (Clarke, Doabler, Nelson, & Shanley, 2015). Student difficulties connecting to previously learned materials may be an explanation as to why the numbers of discipline referrals may increase as a teacher's efficacy increases in instructional strategies. Moreover, instructional strategies that foster higher student engagement were often challenging for some teachers to employ (Shoulders & Krei, 2015). Teacher challenges implementing instructional strategies may also explain why discipline referrals would increase as instructional strategy efficacy decreases. Furthermore, busy teachers are pressed for time to research adequate and reliable instructional strategies for classroom use (Lewis, Baker, Bueno Watts, & Lang, 2014). The use of inappropriate instructional strategies may also lead to inappropriate behavior in the classroom. Therefore, the researcher failed to reject the null hypothesis based on the results of the Spearman's *rho*.

Implications

Previous research has determined that teacher efficacy predicts teacher burnout and that educators with a low sense of efficacy are also more likely to leave the teaching profession (Brouwers & Tomic, 2000). By increasing retention rates amongst teachers, money and valuable resources could be redirected to other financial issues plaguing education (Synar & Maiden, 2012). Therefore, one the purposes of this study was to determine if discipline referrals could be considered a robust construct to predict low teacher efficacy levels. Other related purposes of this study included increasing the existing knowledge on teacher self-efficacy, discovering a possible solution to decrease teacher attrition rates, and provide administrators with a tool for monitoring at-risk teachers.

The current study determined the strength of the relationship between discipline referrals and teacher self-efficacy to be statistically non-significant. The results, in part, can be explained due to the non-normal and non-linear nature of the date, perhaps because of the convenience sample used. Even if a Pearson's *r* correlation had been the test used to determine whether the data answered the research questions, the low shared variance between the variables was noteworthy.

The first and most obvious implication is that human behavior is a complex, multi-faceted phenomenon that appears not easily reduced to a few variables. The results of this study indicate that school administrators may want to consider looking at discipline referral data to help understand the multi-faceted nature of problem behavior within their school building. This is supported by McIntosh et al. (2009) who stated that discipline referral data can be used to help indicate the behavioral climate of schools. These data need to be mined for all possible relationships.

The second implication of this study determined that up to a certain point, referral levels lowered as teacher efficacy levels for instructional strategies increased, then both levels increased. This curvilinear relationship between the discipline referrals and instructional strategies was statistically significant. This would indicate that referral data may be able to predict a teacher's efficacy levels to implement instructional strategies.

Therefore, school administrators should ensure teachers are using and properly implementing appropriate instructional strategies for their students. Furthermore, school administrators should also ensure teachers are adjusting instructional strategies to meet the needs of all students. This implication was supported by research from Thomas & Green (2015) who stated that the use of instructional strategies in the classroom has a great impact on student achievement; therefore, teachers must be thorough when determining which instructional strategies to use and which strategies will advance their students. Additional research suggests students' learning experiences are affected, positively or negatively, by the way in which they are taught and engaged in the learning process (Wilson, Rieg, & Brewer, 2013).

The third implication determined from this study was that referral data cannot be considered a robust construct to predict teacher self-efficacy levels or identify at-risk teachers. It has been argued in previous research that teacher self-efficacy measures remain theoretical and may be invalid when used to improve teacher education and development (Chesnut & Burley, 2015). This study provided similar results to compare to previous research.

The fourth implication of this study determined that discipline referral data is highly complex, can be somewhat subjective in nature, and may be influenced by a student's history of behavior problems (Pas et al., 2011). Characteristics of the teacher, such as having advanced training, may also influence students' receipt of ODRs (Pas et.al, 2011). Research has also

determined teacher attrition rates have been related to ineffective classroom management (Unal & Unal, 2013). However, results of this study did not determine a strong relationship between discipline referrals and classroom management teacher self-efficacy. Therefore, discipline referrals cannot be linked to teacher attrition.

Conclusions

The research questions in this study examined if a relationship existed between the criterion variable of discipline referrals and the predictor variables total teacher self-efficacy, the predictor variables classroom management, student engagement, and instructional strategies. Tschannen-Moran, & Hoy (2001) stated that measuring teacher self-efficacy has been difficult. For example, past research in teacher self-efficacy has relied heavily on measuring teacher confidence without taking into consideration that teacher self-efficacy may vary for different skill sets (Sivri & Balcı, 2015). This study sought to determine if a relationship between discipline referrals and teacher self-efficacy exist.

Research on teacher self-efficacy has continued to increase over the years; however, it has been argued that self-efficacy measures remain theoretical and may be invalid when used to improve teacher education and development (Chesnut & Burley, 2015). This gap in the current literature allowed me to "stand on the shoulders" of Dr. Anita Woolfolk Hoy and expand the current research on teacher self-efficacy by determining if a correlation exist between discipline referrals and teacher self-efficacy levels.

Results of the research in this study were mixed based on the results of the Spearman's *rho*. In addition, a Bonferroni corrected alpha level was used to test for significance. The correction was beneficial for this study because of the added risk of Type I and Type II errors due to the skewed data collected for the criterion variable of discipline referrals (Warner, 2013).

However, the more conservative alpha levels used with this correction also caused a loss of statistical power, which contributed to most of the results being statistically insignificant (Field, 2013).

The Spearman's *rho* correlation between instructional strategies self-efficacy levels and discipline referrals was statistically significant. However, all other correlations run for each hypothesis proved to be statistically insignificant. Results of the study did determine there were linear relationships that would indicate discipline referrals do have some influence on teacher self-efficacy levels. However, the relationships found were considered weak. Therefore, the researcher failed to reject all the null hypothesis for all test based on the results of the Spearman's *rho.*

In summary, the results of this research failed to determine any strong relationship between discipline referrals and teacher self-efficacy levels. Also, the results of this study failed to support any suggestion that discipline referrals could be considered a robust construct to possibly predict low teacher self-efficacy. In addition, the results also failed to support any possibility of discipline referrals as a robust construct for identifying teachers who are at-risk for leaving the field of education.

Limitations

There were several limitations to this study. First, the sample used in this study was drawn from a restricted population, selected out of convenience (for reasons related to resources and access to student and teacher data). The participants included in this study were determined using a convenience sample because data on potential participants were located close to where the researcher resides and the data on discipline referrals has previously been collected (Gall et

al., 2007). Convenience samples are prone to non-response bias and do not allow for error-free appraisal of attitudes, beliefs, and experiences of participants (Gall et al., 2007).

The lack of resources was also a limitation for this study. Therefore, the researcher chose to conduct correlational study instead of an experimental design. Correlations do not establish a causal relationship between variables and experiments provide the strongest results (Gall et al., 2007). An experimental design would have allowed more accurate, more compelling, and more robust analysis of teacher self-efficacy much further than a correlational design did.

Teacher experience levels were also a limitation to this study. Teacher experience levels of the sample population ranged between one and 32 years (South Carolina Department of Education, 2016). The age of teacher participants also ranged from 26 to 63 years (South Carolina Department of Education, 2016). This wide range in teacher experience could have had an effect teacher self-efficacy levels and discipline referral levels. A less diverse participant sample may have contributed to a more robust study.

The use or ordinal-level data to capture the complexity of human behavior, and then treating those data as interval-level and linear was also a limitation. The use ordinal data re-scaled and treated as interval level and sufficient for parametric tests is an issue not likely to be solved anytime soon (Gay & Airasian, 2003; Harwell & Gatti, 2001). However, it was clear from this study that normality and linearity were not able to be confirmed.

Recommendations for Future Research

Upon review and reflection of the results of this study, there are a five recommendations that could be used to enhance this research. The first recommendation would be to use a larger sample size, which may have provided more normally distributed data for the criterion variable of discipline referrals. The second recommendation is also concerned with the population from

which to draw the sample. Including only pre-service teachers would be both beneficial to advancing the study of teacher self-efficacy and the problem of teacher retention.

The third recommendation for future research would be to change the study from a correlational design to an experimental design. Correlations do not prove a causal relationship between variables and experiments provide the strongest results (Gall et al., 2007). The researcher believes using a control-group design would allow research on discipline referrals and teacher self-efficacy to advance much further. The researcher would recommend providing a control group who received additional training in classroom management to be compared to a group who received no additional training. In addition, the use of a more sophisticated statistical measure, such as an ANCOVA, would provide more statistically significant results (Gall et al., 2007).

A fourth recommendation would be to implement data collection processes which account for differences in discipline referral data. The type of discipline referral, or offense committed by the student, may have an effect on a teacher's self-efficacy. For example, a teacher may be writing students up many times for a simple offense such as a tardy. A referral for a tardy may not fully represent the environment of the classroom, or the teacher's ability to control behavior. The number of referrals may be high for that particular teacher; however, that teacher may still maintain a high level of self-efficacy. Therefore, different types of discipline referrals may affect teacher self-efficacy differently. Moreover, accounting for the different discipline offenses could advance the research on discipline referrals.

Moreover, rescaling the instrument to include more measured data points might help to correct the issues involved with using what is ordinal-type data to conduct parametric statistical analysis. Finding a way to measure the influence of teachers on discipline referrals should still

be the goal for future researchers, to include finding ways to use linear measures better fit for parametric statistical analysis.

Finally, given the complexity of human behavior and student motivations, the fifth recommendation would be to include mixed-method or qualitative research to determine student, faculty, and administrator lived experiences with the phenomenon of discipline referrals. If this study showed anything, it was that the number of referrals writing cannot be reduced to just a few variables

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APPENDICES

Appendix A

April 28, 2016

[redacted]
EDU 919 Professor
Liberty University
1971 University Blvd
Lynchburg, Va. 24515

Dear [redacted]

As a graduate student in the Education Department at Liberty University, I am conducting research as part of the requirements for a Doctoral degree. The title of my research project is Teacher self-efficacy and the relationship between student discipline referrals and the purpose of my research is to determine if there is a strong relationship between teacher self-efficacy and discipline referrals.

I am writing to request your permission to conduct my research in your school district, which is located in rural school district in a southern state.

Participants will be asked to complete the Teacher Sense of Efficacy scale and provide consent to the researcher to obtain discipline referral data. The data will be used to determine if there is a strong relationship between teacher self-efficacy and discipline referrals. Participants will be presented with informed consent information prior to participating. Taking part in this study is completely voluntary, and participants are welcome to discontinue participation at any time.

Thank you for considering my request. If you choose to grant permission, please provide a signed statement on approved letterhead indicating your approval.

Sincerely,

Brice Laughter
Business Education Instructor

Appendix B

March 28, 2017

Dear District Principal,

As a doctoral student in the Education Department at Liberty University, I am conducting research as part of the requirements for a Doctoral degree.

I am writing to request your permission to conduct my research within your school Participants will be asked to complete the Teacher Sense of Efficacy scale and provide consent to the researcher to obtain discipline referral data.

The data will be used to determine if there is a strong relationship between teacher self-efficacy and discipline referrals. Participants will be presented with informed consent information prior to participating. Taking part in this study is completely voluntary, and participants are welcome to discontinue participation at any time.

Thank you for considering my request. If you choose to grant permission, please provide a signed statement on approved letterhead indicating your approval.

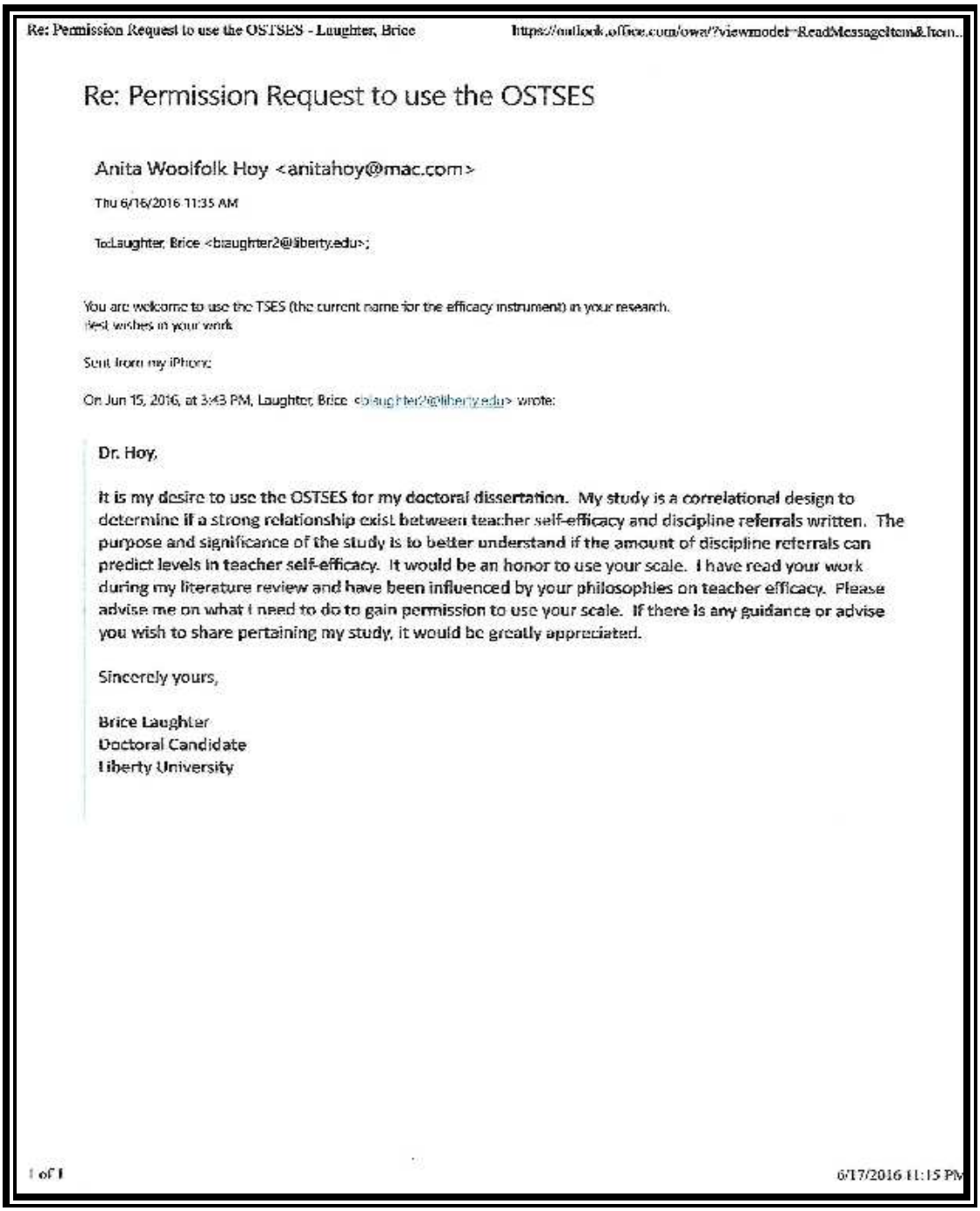
Please sign below if you consent

_____

Sincerely,

Brice Laughter
Business Education Instructor

Appendix C



Re: Permission Request to use the OSTSES - Laughter, Brice https://outlook.office.com/owa/?viewmodel=ReadMessageItem&Item...

Re: Permission Request to use the OSTSES

Anita Woolfolk Hoy <anitahoy@mac.com>

Thu 6/16/2016 11:35 AM

To:Laughter, Brice <blaughter2@liberty.edu>;

You are welcome to use the TSES (the current name for the efficacy instrument) in your research.
Best wishes in your work

Sent from my iPhone

On Jun 15, 2016, at 3:43 PM, Laughter, Brice <blaughter2@liberty.edu> wrote:

> Dr. Hoy,
>
> It is my desire to use the OSTSES for my doctoral dissertation. My study is a correlational design to determine if a strong relationship exist between teacher self-efficacy and discipline referrals written. The purpose and significance of the study is to better understand if the amount of discipline referrals can predict levels in teacher self-efficacy. It would be an honor to use your scale. I have read your work during my literature review and have been influenced by your philosophies on teacher efficacy. Please advise me on what I need to do to gain permission to use your scale. If there is any guidance or advise you wish to share pertaining my study, it would be greatly appreciated.
>
> Sincerely yours,
>
> Brice Laughter
> Doctoral Candidate
> Liberty University

1 of 1 6/17/2016 11:15 PM

Appendix D

Teachers' Sense of Efficacy Scale[1] (long form)

Teacher Beliefs Directions: This questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate your opinion about each of the statements below. Your answers are confidential.	How much can you do? Nothing		Very Little		Some Influence		Quite A Bit		A Great Deal
1. How much can you do to get through to the most difficult students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2. How much can you do to help your students think critically?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
3. How much can you do to control disruptive behavior in the classroom?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
4. How much can you do to motivate students who show low interest in school work?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
5. To what extent can you make your expectations clear about student behavior?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
6. How much can you do to get students to believe they can do well in school work?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
7. How well can you respond to difficult questions from your students ?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
8. How well can you establish routines to keep activities running smoothly?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
9. How much can you do to help your students value learning?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
10. How much can you gauge student comprehension of what you have taught?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
11. To what extent can you craft good questions for your students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
12. How much can you do to foster student creativity?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
13. How much can you do to get children to follow classroom rules?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
14. How much can you do to improve the understanding of a student who is failing?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
15. How much can you do to calm a student who is disruptive or noisy?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
16. How well can you establish a classroom management system with each group of students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
17. How much can you do to adjust your lessons to the proper level for individual students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
18. How much can you use a variety of assessment strategies?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
19. How well can you keep a few problem students form ruining an entire lesson?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
20. To what extent can you provide an alternative explanation or example when students are confused?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
21. How well can you respond to defiant students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
22. How much can you assist families in helping their children do well in school?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
23. How well can you implement alternative strategies in your classroom?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
24. How well can you provide appropriate challenges for very capable students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

Appendix E

Directions for Scoring the Teachers' Sense of Efficacy Scale[1]

Developers: Megan Tschannen-Moran, College of William and Mary
Anita Woolfolk Hoy, the Ohio State University.

Construct Validity

For information the construct validity of the Teachers' Sense of Teacher efficacy Scale, see:

> Tschannen-Moran, M., & Woolfolk Hoy, A. (2001). Teacher efficacy: Capturing and elusive construct. *Teaching and Teacher Education, 17*, 783-805.

Factor Analysis

It is important to conduct a factor analysis to determine how your participants respond to the questions. We have consistently found three moderately correlated factors: *Efficacy in Student Engagement, Efficacy in Instructional Practices*, and *Efficacy in Classroom Management*, but at times the make up of the scales varies slightly. With preservice teachers we recommend that the full 24-item scale (or 12-item short form) be used, because the factor structure often is less distinct for these respondents.

Subscale Scores

To determine the *Efficacy in Student Engagement, Efficacy in Instructional Practices*, and *Efficacy in Classroom Management* subscale scores, we compute unweighted means of the items that load on each factor. Generally these groupings are:

Long Form

Efficacy in Student Engagement:	Items 1, 2, 4, 6, 9, 12, 14, 22
Efficacy in Instructional Strategies:	Items 7, 10, 11, 17, 18, 20, 23, 24
Efficacy in Classroom Management:	Items 3, 5, 8, 13, 15, 16, 19, 21

Short Form

Efficacy in Student Engagement:	Items 2, 3, 4, 11
Efficacy in Instructional Strategies:	Items 5, 9, 10, 12
Efficacy in Classroom Management:	Items 1, 6, 7, 8

Appendix F

Consent Form

You have been invited to participate in a study to be conducted at _____School. Your participation in this study will be on a volunteer basis and is not associated with the School District. Furthermore, your involvement decision will not have any influence on your current/future professional standing.

Withdrawal from study:
As a volunteer participant, you are not obligated to continue participating in this study. At any time, you may terminate your involvement.

Purpose of the study:
The purpose of this correlational study is to determine the relationship between teacher self-efficacy and student discipline referrals

Confidentiality:
All information collected during the research process will be kept confidential. The reporting of the results of the study will be presented in a way as to not identify you. The data collected will be kept in a secured file cabinet that the researcher only has a key to.

Risks and benefits:
Risk to participate in the study will be no more than an average day at work. Benefits of the study will be added training in classroom management techniques and a more in-depth understanding of how classroom management techniques impact students.

Compensation:
You will be provided with a small token of appreciation and be entered into drawing for a gift card upon successful completion of participation in the study.

Research Activities for Subjects:
If you agree to participate in this study, you will be asked to complete the Teacher Sense of Efficacy Scale and consent to release information pertaining to student discipline referrals written.

Questions:
If you have any questions concerning this study, please contact me at your convenience at (864)-230-6154. My email address is laughtere@bcsdschools.net.
I agree to participate in the study.

Your signature: _____

Date: _____

Your name (printed):_____

Appendix G

DEMOGRAPHIC INFORMATION FORM

1. Gender: _____
2. Ethnicity: _____
3. Number of years teaching experience: _____
4. Highest education degree obtained: _____
5. Subject taught: _____

Appendix H

Narrative of Conversation to Potential Participants

Introduction

Good Morning/Afternoon,

My name is Brice Laughter and I'm currently a doctoral candidate in the Education Department at Liberty University. I am conducting research as part of the requirements for a Doctoral degree.

The title of my research project is Teacher self-efficacy and the relationship between student discipline referrals. The purpose of my research is to determine if there is a strong relationship between teacher self-efficacy and discipline referrals.

I'm here today to explain the details of my study and invite you to participate. Your principal has given me permission to conduct research for this study at _____School. Your participation in this study will be on a volunteer basis and is not associated with the School District. Furthermore, your involvement decision will not have any influence on your current/future professional standing.

Purpose of the study:

The purpose of this correlational study is to determine the relationship between teacher self-efficacy and student discipline referrals. Teacher self-efficacy is a teacher's belief in their ability to perform the required task of a professional educator.

Research Activities for Subjects:

If you agree to participate in this study, you will be asked to complete the Teacher Sense of Efficacy Scale and consent to release information pertaining to student discipline referrals written.

Risks and benefits:

Risk to participate in the study will be no more than an average day at work. Benefits of the study will be added training in classroom management techniques and a more in-depth understanding of how classroom management techniques impact students.

Confidentiality:

All information collected during the research process will be kept confidential. The reporting of the results of the study will be presented in a way as to not identify you. The data collected will be kept locked in a secured file cabinet that the researcher only has a key to.

Withdrawal from study:

As a volunteer participant, you are not obligated to continue participating in this study. At any time, you may terminate your involvement.

Compensation:

You will be provided with a small token of appreciation and be entered into drawing for a gift card upon successful completion of participation in the study.

Questions:

If you have any questions concerning this study you may ask me now, or you may contact me at your convenience at (864)-230-6154. My email address bricelaughter@att.net.

Appendix I

The Liberty University Institutional Review Board has approved this document for use from 4/26/2017 to 4/25/2018 Protocol # 2826.042617

CONSENT FORM

THE RELATIONSHIP BETWEEN TEACHER SELF-EFFICACY LEVELS AND THE NUMBER OF STUDENT DISCIPLINE REFERRALS TEACHERS WRITE

Brice Laughter
Liberty University
School of Education

You are invited to be in a research study of teacher self-efficacy levels and how they are correlated with discipline referrals. You were selected as a possible participant because you meet the requirement of being a secondary teacher. Please read this form and ask any questions you may have before agreeing to be in the study.

Brice Laughter, a doctoral candidate in the School of Education at Liberty University, is conducting this study.

Background Information: The purpose of this study is to determine if there is a relationship between secondary teachers' self-efficacy and the number of discipline referrals they write.

Procedures: If you agree to be in this study, I would ask you to do the following things:

1. All participants will be asked to complete the Teacher Sense of Efficacy Scale. The Teacher Sense of Efficacy Scale is a 24-question Likert-type scale survey which will be completed on paper with pencil. This task should take an estimated 15 minutes to complete.
2. Participants will be asked to fill out a demographic questionnaire consisting of five (5) questions: gender, ethnicity, number of years of teaching experience, highest degree obtained, and subject taught. This task should take an estimated 5 minutes to complete.

Risks and Benefits of Participation: The risks involved in this study are minimal, which means they are equal to the risks you would encounter in everyday life. Participants should not expect to receive a direct benefit from taking part in this study. Benefits to society include expanding educational research on teacher self-efficacy, possibly finding a way to reduce the problem of teacher attrition and the cost associated with this problem, and potentially discovering a construct that can help measure and identify teachers who are at-risk for low teacher self-efficacy.

Compensation: Participants will be compensated for participating in this study. Gift bags and a raffle ticket for a $25.00 gift card will be provided to participants as an incentive and compensation to participate in the study.

Confidentiality: The records of this study will be kept private. In any sort of report I might publish, I will not include any information that will make it possible to identify a subject. Research records will be stored securely, and only the researcher will have access to the records. I may share the data I collect from you for use in future research studies or with other researchers; if I share the data that I collect about you, I will remove any information that could identify you, if applicable, before I share the data.

Surveys will be confidential and collected by the researcher in an office clasp envelope, which will be coded to ensure the privacy for each participant. Referral data will be collected in a