EXPLORATORY ANALYSIS OF VARIANCE: EXAMINING THE ROLE OF TEACHER EDUCATION LEVEL ON EDUCATOR SENSE OF SELF-EFFICACY

by

Jonetta L. Cooper

Liberty University

A Dissertation Presented in Partial Fulfillment
Of the Requirements for the Degree
Doctor of Education

Liberty University
2022
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ABSTRACT

The purpose of this causal-comparative study was used to analyze the hypothesized differences among inclusion teachers’ sense of self efficacy (TSES) based on their highest level of degree completion (bachelor’s, master's, master's plus). In an era of educational reform, students with specific learning disabilities (SLD) continue to lag behind regular education counterparts in all schooling environments. Schools in the southwestern region of Tennessee are now servicing a growing number of SLD-diagnosed students with a paucity of research addressing teacher's impact on SLD literacy scores. Participants in the study comprised 59 English language arts (ELA) inclusion teachers in 12 public middle school settings. To address this gap in the research, data were examined using a one-way analysis of variance (ANOVA). Survey Monkey and TSES long form was used to collect demographic and professional information. Results of the one-way ANOVA revealed no statistically significant differences among inclusions teachers with different levels of education. Future recommendations for research in virtual reality (VR) and augmented reality (AR) can enhance instructional practices while building teacher's confidence to motivate students' interest in ELA achievement in all public-school learning environments.

Keywords: achievement, specific learning disabilities, virtual reality, augmented reality
Copyright Page
This dissertation is dedicated to the memory of my son Yasin Sharieff Cooper. Although he was my inspiration to pursue my doctoral degree, he was unable to see my graduation. This is for him. For my daughter Ayesha King, son Javontay McElroy, and grandchildren Kinslee James and Kayden James, I hope to influence your lives to become prosperous and enlightening to the world through your civic engagement. Joshua 1:9 asserts, "Be strong and courageous, do not be frightened, and do not be dismayed, for the Lord your God is with you wherever you go" (ESV).

To my siblings Jamile Cooper, Habakkuk Cooper, Asha Cooper, and Lamario Cooper for leading by example the purpose of chasing my dreams. 1 Thessalonians 5:18 states, "Give thanks in all circumstances; for this is the will of God and Christ Jesus for you" (ESV). Continue to hold fast to your dreams and reimagine a brighter future for the next generation. To my mother Shirley D. Cooper and father Wali Muhammad, who instilled in me in both spoken and unspoken words to seek wisdom and live among the righteous. Psalms 5:12 says, "For you bless the righteous, oh Lord; you cover him with favor as with a shield (ESV).
Acknowledgments

First, to my Liberty University professors, committee members, librarians, editors, and those who provided words of advice for their steadfast encouragement and inspiration throughout the doctoral degree and dissertation process is the reason for my success. 1Timothy 2:4 states Christ, "desires all people to be saved and to come to the knowledge of the truth" (ESV).

Second, Christ, for providing me with the opportunity to excel at the highest terminal degree for the betterment of my life and civic responsibility for others. I love education and there is nothing anybody could do about it! Proverbs 18:15 asserts, "An intelligent heart acquires knowledge, and the ear of the wise seeks knowledge" (ESV).

Lastly, thank you to the participating school system whose dedicated central office, building-level principals, and teachers for providing me with the opportunity to glean knowledge of teacher's expertise, which brought this dissertation to completion. During the COVID-19 pandemic, the district modeled how to remain a beacon of light for others to follow. 1 Corinthians 15:58 states. "My beloved brothers, be steadfast, immovable, always abounding in the work of the Lord, knowing that in the Lord your labor is not in vain" (ESV).
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List of Abbreviations

Achievement School District (ASD)
Augmented Reality (AR)
Center of Educational Reform (CER)
Charter Management Organizations (CMO)
Educational Management Organizations (EMO)
Elementary and Secondary Education Act (ESEA)
English Language Arts (ELA)
Free and Appropriate Education (FAPE)
Individuals with Disabilities Act (IDEA)
Individualized Education Plan (IEP)
Local Education Agency (LEA)
National Center for Education Evaluation and Regional Assistance (ED)
No Child Left Behind Act (NCLB)
School Improvement Grant (SIG)
Social Cognitive Theory (SCT)
Social Development Theory (SDT)
Social Learning Theory (SLT)
Specific Learning Disabilities (SLD)
Students with Disabilities (SWD)
Students with Learning Disabilities (SWLD)
Tennessee Comprehensive Assessment Program (TCAP)
Tennessee Department of Education (TDOE)
Teacher Sense of Efficacy Survey (TSES)

Value Added Models (VAMs)

Variance Inflation Factor (VIF)

Virtual Reality (VR)

Zone of Proximal Development (ZPD)
CHAPTER ONE: INTRODUCTION

Overview

The purpose of this quantitative, causal comparative study is to determine if there is a statistical difference in teacher self-efficacy levels among teachers with bachelor's degree, master's degree (e.g., MA, M, MEd), and master's plus for students with SLD. Chapter One addresses the theoretical background, problem statement, purpose statement, significance of study, research questions, and definitions. Each section clarifies the theoretical foundation of the study and the root of Chapter Two literature review. A study of inclusion teachers who service SLD subgroup is a long-standing phenomenon in social and behavioral sciences in need of further analysis.

Background

Traditional public schools' initiative to implement charter schools' proposal to innovate with limited resources and mandated additional services for students with special needs continue to place barriers on access to opportunity (Barnard-Brak, Schmidt, & Almekdash, 2018) for all students. Under the regulation of Individuals with Disabilities Act (IDEA), No Child Left Behind (NCLB), and Section 111(b)(2)(K) of the 1995 Elementary and Secondary Education Act (ESEA), students with specific learning disabilities (SLD) continue to lag behind their general education counterparts (Galvan & Galvan, 2017; Rapa, Katsiyannis, & Robin, 2018). For this study, SLD is generally defined as having foundational deficits in reading, comprehension, listening, writing, and problem-solving skills (TDOE, 2017a). In addition, SLD is one of 13 federally recognized and controversial cognitive disabilities (Cottrell & Barrett, 2017; TDOE, 2017a). Historically, exclusion from the general education curriculum and lack of collaboration among non-disabled peers perpetuated educational inequalities for minority subgroups.
Educational accountability in the past and present emphasize that public-school systems need to provide all students with a quality and equitable education. Today, SLD participates in TNReady state standardized tests alongside their non-disabled peers, which increases the need for dynamic teaching and learning models designed to keep students engaged, motivated, and highly interested in the learning process. For this reason, discovering if there is a difference in teacher self-efficacy scores among teachers with bachelor's degree, master’s degree (e.g., MA, MS, MEd), and master's plus is the focus of this research.

**TNReady for English Language Arts**

For this study, achievement in the state of Tennessee is measured by summative criterion referenced standardized tests. Tennessee value-added assessments provide district and building-level administrators with year-to-year statistical analysis of content area performance. Questar Online Testing Services administers state testing in ELA for the school district at the end of the spring semester. TNReady tests focus on student’s competency skills in written expression, conventions, reading/literature, reading/informational, and reading/vocabulary. Testing items include multiple choice, two-part multiple-choice evidence-based selected response (EBSR), multiple select, writing prompt, and editing task. Eighth-grade testing structure consists of four subparts (TDOE, 2019b) (see Table 1).
Table 1

*Eighth-Grade Testing Structure*

<table>
<thead>
<tr>
<th>Subpart I Test</th>
<th>Subpart II Test</th>
<th>Subpart III Test</th>
<th>Subpart IV Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>(85 mins.)</td>
<td>(50 mins.)</td>
<td>(50 mins.)</td>
<td>(45 mins.)</td>
</tr>
<tr>
<td>one passage set</td>
<td>two passage sets</td>
<td>two passage sets</td>
<td>one passage set</td>
</tr>
<tr>
<td>three to five passage-based items</td>
<td>five to 10 items per passage set</td>
<td>five to 10 items per passage set</td>
<td>five to 10 items per passage set</td>
</tr>
<tr>
<td>one writing prompt</td>
<td></td>
<td></td>
<td>eight to 16 editing items</td>
</tr>
</tbody>
</table>

Three tracks categorize performance levels and scale scores (e.g., Level I, Below; Level II, Approaching; Level III, On-track; Level IV, Mastered). Below performance is an indicator of intensive remedial services. Approaching status is an indicator of partial cognitive ability. On-track demonstrates comprehension of the standard and how it applies to curriculum content. Mastery demonstrates an overall understanding of course level content. Scale scores range from 200-450. The minimum performance range is 200 with the highest overall performance score of 450 (TDOE, 2019). Educational researchers often use standardized tests to study the achievement gap phenomenon (Erickson et al., 2013; Grasparil & Hernandez, 2015) (see Table 2).
Table 2

*Tested Categories, Standard, and Average Performance Range*

<table>
<thead>
<tr>
<th>Category I</th>
<th>written expression/conventions</th>
<th>25-29%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category II</td>
<td>reading/literature</td>
<td>7-9%</td>
</tr>
<tr>
<td>Category III</td>
<td>reading/informational reading/vocabulary set</td>
<td>25-30% 8-12%</td>
</tr>
</tbody>
</table>

SLD is controversial in definition and arguments regarding its ability to increase literacy achievement (Ackerman & Egalite, 2017; Cottrell & Barrett, 2018). A plethora of quantitative literature exists in the field of education, behavioral and social sciences, and psychology regarding students with disabilities (SWD) in traditional public schools (Slavin, 2013). However, little to no information exists comparing the impact inclusion teachers have on students with SLD literacy achievement. Findings from present research conducted by Cottrell and Barrett (2017) on charter school effectiveness suggested comparable rates of achievement among students with special needs. Erickson et al. (2013) meta-analytic study of elementary, middle, and high school reading and mathematics achievement findings suggested charter schools are not outperforming traditional schools. In fact, Epple et al. (2015) addressed critics' arguments, questioning charters' ability to appropriately service all student populations while charter proponents emphasized their appreciation for school choice, autonomy, and innovative specialized curriculum.

Policy makers and district leaders argue discrepancies with charters' reports of accelerated achievement among subgroups partly due to differences in traditional and charter school operational management. Although charter schools offer innovative opportunities meant to be accessible to all student membership, students with special needs are often limited in access
and support. With over 40% SLD representing student membership in urban city school systems across the United States, socioeconomic, behavioral, and cognitive disparities have incited robust competition for funding, resources, quality teachers, adequate programming, and servitude leadership (Pitre, 2014). As traditional schools strive to increase SLD literacy achievement with the development of open charter schools, controversial claims from charter critics continue to emphasize the lack of resources and supports necessary to appropriately service minority subgroups placing charter's progress with SLD literacy achievement in the same striving predicament as traditional school settings (Pannell et al., 2015). Schwenkenberg and VanderHoff (2015) created an audit trail of charters' low enrollment of SWD across school districts in the southwestern region of the United States, which further clarifies the lack of accessibility and support necessary to foster literacy gains in all public-school settings.

In a 21st-century multi-tasking society substantial research identified innovative curriculum, content knowledge, vigorous coaching, open systems of operational management, "no excuse" models, and servitude leadership as attributes of conducive learning environments (Ames, 1992; Epple et al., 2015; Vygotsky, 1978). English language arts (ELA) inclusion teachers' self-efficacy levels based on degree levels is necessary to gain further insight into whether inclusion teachers are prepared to meet rigorous goals of achievement for all subgroups (Rapa et al., 2018). The historical impact on SWD adversely affects quality and equitable education (Choi et al., 2017). A substantial amount of evidence supports charter schools' open enrollment system as a means of generating positive achievement results for students in poverty-stricken urban communities (Angrist et al., 2016). The primary focus of this study is closing the literacy achievement gap among students with SLD in traditional schools with the support of charter system environments (Pitre, 2014).
**Historical Overview**

Historically, the 1960s generated conversations around disadvantages among minority subgroups prompting legislative enactments such as ESEA, where former President Lyndon B. Johnson addressed the war on poverty. The overall aim was to increase educational effectiveness in poverty-stricken communities adversely affecting literacy achievement (Epple et al., 2015; Oberfield, 2016). Before 1975, SWD was initially prohibited from accessing general education curriculum, which further caused persistent low achievement scores; therefore, the public-school system had to rectify exclusionary practices. The proliferation of Minnesota charter schools created a widespread growth of charters across states in urban districts' high need areas to close achievement gaps (Rapa et al., 2018).

In 2001, the No Child Left Behind Act (NCLB) was meant to ensure that all students were afforded equal and equitable rights (Fagioli, 2014; Pannell et al., 2015). A push towards accountability changed principals' roles and responsibilities from supervisory to servitude instructional leadership, placing students at the core of motivational teaching and learning (Pannell et al., 2015). Past initiatives profoundly impacted students’ educational placement, classroom environment, and opportunity for achievement, by affording SWD access into the general education curriculum and pool of resources. The revision of IDEA (2004) did not come without a cost (Cottrell & Barrett, 2017). Access to inclusive learning environments fosters rigorous high standards of accountability (Carlson & Lavertu, 2018). The SWD phenomenon added to the mounting pressure for teachers to demonstrate professional and intentional content knowledge, dynamic pedagogical practices, and differentiation of instruction capable of raising academic achievement for all students (Rapa et al., 2018).
Vygotsky's (1978) social development theory (SDT) described the proximal zone as an intrinsic motivation essential to raising student achievement in ELA, math, and writing. Vygotsky's zone of proximal development is a multi-faceted issue in the field of behavioral and social sciences. The concept provides an understanding for students' inability to internalize intellectual processes deeply rooted in discriminatory exclusionary practices. In the study, Vygotsky described how students' mental capacity is indicative of language and learning acquisitions used to develop consciousness. Vygotsky further explained how learning is a habitual routine of practice where one concept expounds upon another. Children's learning is not only a step-by-step process of cognitive development, but also there is a level of maturation necessary to develop resilience. Bandura's (1986) social learning theory (SLT) and Vygotsky's proximal development explains how the concreteness of look and copy methods is a hinderance to students’ visualization of abstract theories, which paved the way for Ames' (1992), achievement goal theory (AGT). Ames further expounded on the conceptual complexity of Vygotsky's theory of developmental cycles of achievement by considering the extrinsic value of effort. Guan's (2015) AGT combined the two concepts of intrinsic and extrinsic motivation to entail realistic planning as a guide towards SWD achieving rigorous goals.

**Society-at-Large**

Charter's sustainability lies at the core of student achievement (Angrist et al., 2013). Angrist et al. (2013) argued that thriving charters around the United States use value-added approaches such as no excuse models with the potential to make gains in traditional public schools (Fagioli, 2014). The concept draws a line between effective and ineffective operational management. In fact, traditional schools located near effective charters can replicate 'best practices.' Schwenkenberg and VanderHoff's (2015) research findings on why charter schools
fail, emphasized how increasing students' standardized test scores by one standard deviation reduces failure rates by 76%. Presently, charters’ effectiveness is prompting a rise in greater possibilities of finding the most appropriate learning solution to alleviate minimal SLD achievement (Honebein & Honebein, 2015). Initiatives for charters improvement in meeting the needs of SLD focuses on a widespan of quantitative literature reviews addressing charter school management, servitude leadership, and teacher effectiveness (Erickson et al., 2013). Pitre's (2014) causal-comparative study implicated a continuance of inequitable issues primarily associated with 40% of SLD diagnosis. Over 74% of African American students come from poor backgrounds and are primary candidates for SLD diagnosis. According to *The Western Journal of Black Studies*, 40% of African Americans in the 8th grade are reading below basic. By 12th grade more than 44% of minority subgroups graduate high school with reading deficiencies further perpetuating the gap in college and career readiness (Pitre, 2014). Since traditional and charter school sectors are public schools, parents and/or guardians can apply for open enrollment availability and choose instructional preference with a perceived notion of students’ ability to increase academic outcomes given access to opportunity (Barnard-Brak et al., 2018 Choi et al., 2017).

**Theoretical Background**

Theoretical discussions are supported by scholarly evidence related to teacher's self-efficacy scores based on degree level as an unexamined predictor for increasing SLD literacy achievement (Lancaster & Bain, 2021; Yakut, 2021). Studies addressing inclusion teachers’ effectiveness in implementing 'best' inclusive practices prompts an exploratory of variance design with ANOVA analysis for this study (Ackerman & Egalite, 2017; Callaway, 2017). Students' responsiveness to mastering academic goals is embedded in the problem statement and
deeply “rooted” in the body of other studies to expand upon further research recommendations. The study aims to discover valuable information as a much-needed addition to empirical research currently available (Fagioli, 2014).

**Problem Statement**

Currently, a wide span of charters is servicing a growing number of students diagnosed with SLD. Research regarding inclusion teachers' impact on ELA [test scores] in inclusive classrooms is a scarcity (Keller-Margulis & Gischlar, 2014). Also, there is disagreement about how charter systems are responding to multi-faceted challenges with providing extensive support like striving urban poverty-stricken traditional schools (Ackerman & Egalite, 2017; Sahin et al., 2017). Budget costs often overshadow adequate funding, resources, quality professionals, programming, and services constructed to enhance instructional practices (Pannell et al., 2015).

As all public schools strive to address minority subgroup achievement adequately, a persistent gap continues to exist for students with SLD cognitive deficits adversely impacting literacy achievement (Finn et al., 2014; Fryer, 2014, Goldman & Snow, 2015). Currently, there is no consensus of charter schools’ effectiveness across the United States because of discrepancies in heavily saturated nonexperimental methods (Ackerman & Egalite, 2017; Erickson et al., 2013). In the state of Tennessee, students diagnosed with SLD are required to participate in state standardized assessments at the end of the school year alongside their nondisabled peers; therefore, charter school systems will need to address low achievement in inclusive classroom environments (TDOE, 2018a).

Accountability for supporting educational needs is an imperative element of a student's level of success. The problem statement examines controversial outlooks on open charter schools’ achievement to better understand the problem (Choi et al., 2017; Pannell et al., 2015;
Pitre, 2014). The problem is a lack of empirical research on the difference in ELA state test scores among eighth grade inclusion teacher, certification type, sense of efficacy, and highest degree/level of school completion for students with SLD to support cognitive deficits reported in educational research, social sciences, and related studies (Fagioli, 2014; Galvan & Galvan, 2017).

**Purpose Statement**

The purpose of this quantitative, causal-comparative design is to collect, analyze, and evaluate data to determine if there is a difference in teacher self-efficacy levels among teachers with bachelor's degree, master's degree (e.g., MA, MS, MEd), and master's plus for students with SLD. It is the proper approach because the researcher seeks to compare variances between variables in a model that explains an outcome variable. Overall, the researcher seeks to know variances within the group's means. Developing a model with multiple groups requires one-way ANOVA analysis of variances (Gall et al., 2007; Rovai et al., 2013; Warner, 2013). Eighth-grade middle school teacher's self-efficacy scores will be the criterion variable. The researcher will collect data from eighth grade teacher participants in an urban county located in the southwestern corner of Tennessee in traditional middle schools. Students diagnosed with SLD are eligible to receive inclusion services between the 2021 and 2022 school year. Teacher participants hold traditional or alternative licenses and have actively taught between the 2021 and 2022 year.

Research has demonstrated the positive effect of charter schools' innovative curricula to promote ELA achievement (Angrist et al., 2016; Betts & Tang, 2014; Cowen & Creed, 2017; CREDO, 2015). Further research is beginning to demonstrate that innovative teaching and self-regulated learning may enhance the quality of education in all K-12 Socratic learning
environments by matching learners' interest (Bifulco & Buerger, 2015; Carlson & Laveru, 2018; Cheng et al., 2017). Researchers have also cited limitations of charters' ability to increase ELA standardized test scores, such as inadequate funding, resources, accessibility, and legislation mandates and its potential to interfere with traditional school funding needs (Chingos & West, 2015; Clark et al., 2015; Cohodes, 2018). Further understanding is necessary regarding charters' potential spillover effect on traditional schools nearby, especially technological advancements, specialized instruction, cognitive, and metacognitive research-based strategies that can enhance or undermine quality traditional school reformation initiatives.

With an expectation of 100% proficiency in all subgroups by 2014, the significance of the study will add to the existing body of knowledge by making a connection to similar studies involving the emergence of charter schools (Rapa et al., 2018; Sahin et al., 2017). Fagioli’s (2014) emphasis on accountability for charter schools' effectiveness will make valuable knowledge base contributions to the field of behavioral and social science both theoretically and empirically (Ames, 1992; Vygotsky, 1978). Ackerman et al. (2017) study provides pertinent information related to charter’s effectiveness in middle schools. While charter school operators can find benefit from the extensive body of knowledge, traditional public school can benefit from the spillover effect of ‘best practices’ by equalizing school system’s ability to achieve federally mandated goals to foster mastery among all minority subgroups (Carlson & Lavertu, 2018; Choi et al., 2017; Epple et al., 2015; Fagioli, 2014; Gill et al., 2016; Grasparil & Hernandez, 2015).

**Significance of the Study**

The proposed study influences public-school operators, district leaders, and policymakers to continue striving for 100% proficiency in all subgroups (Barnard-Brak et al., 2018). Teachers
will be better equipped to improve instructional practices, pedagogy, and curriculum development that meets the rigor of post-secondary college and career readiness (Honebein & Honebein, 2015). This study also contributes to a larger body of knowledge by examining how the use of innovative technology and level of expertise contribute to inclusive learning environments, influence students' motivation, engagement, and self-regulation towards achievement in all learning environments (Cordes, 2018; Dent & Koenka, 2016; Federal Education Budget Project, 2014a; Zimmerman, 1986; Zimmerman, 2001). This understanding will assist school leaders with identifying best practices for quality instruction (Eckes, 2015; ESSA, 2015). In addition, legislation can glean information from theoretically grounded research to guide practical decisions that move beyond 2-D platforms to enhance the quality of education and ultimately change the quality of lives (Federal Education Budget Project, 2014a).

The theoretical significance of this study emphasized a need for a comprehensive theoretical framework grounded in Ames (1992) AGT, Badura (1986) SLT, and Vygotsky’s (1978) SCT. Findings from the study support future researchers’ development of comprehensive plans of literacy achievement in all learning environments (Pitre, 2014). Clear and transparent representation of the findings provided value-added support for all students' academic achievement. The focus of the following research question is to determine if there is a statistically significant difference among teachers' sense of efficacy and highest degree level.

**Research Question**

The following research question was used to explore if there is a statistically significant difference in teachers’ sense of efficacy scores (TSES) and degree type. Social cultural learning theory defined the theoretical framework, research question, and data collection instruments.
RQ: Is there a statistically significant difference in teachers’ sense of efficacy scores (TSES) among eighth grade inclusion teachers with bachelor's degree, master’s degree (MA, MS, MEd), and master's plus degrees?

Definitions

1. **Achievement**- standardized assessment measured by overall mastery of content knowledge in alignment with tested content area standards (Angrist et al., 2013).

2. **Achievement gap**- a group of students’ significant progress over another (Pitre, 2014).


4. **Alternative licensure**- Teachers must go through rigorous screening, complete accelerated coursework, and continue mentoring programs (Zhang & Zeller, 2016).

5. **Augmented reality**- allow students to interact with real-world events grounded in immersive graphics, so students can better grasp abstract concepts, themes, and ideas (Karagozlu, 2018).

6. **ESEA**-Elementary and Secondary Education Act of 1965 was passed to ensure equitable and quality education for all students (TDOE, 2018a).

7. **FAPE**- The Free and Appropriate Education states students can register at any school within their zoning area with individualized education program (IEP) accommodations and modifications to provide access into the general education curriculum and available resources (TDOE, 2019b).

8. **IDEA (2004)**- Individuals with Disabilities Education Act designed to protect the rights of parents and students with disabilities (Choi et al., 2017).
9. *NCLB (2001)*- No Child Left Behind Act "All students reach levels of proficiency by the 2013-2014 academic school year" (Fagioli, 2014, p. 204).

10. *Open charter* - "Public school chartered under the auspices of a state government" (Epple et al., 2015, p. 2) defined at T.C.A. § 49-13-104. Open charter schools offer open enrollment for all state and district students according to availability (TDOEa, 2018).

11. *Specific learning disabilities* - defined as having cognitive deficits with processing verbal or nonverbal language, listening, comprehension, speech, reading fluency, writing, spelling, or problem-solving skills that adversely affect a child’s achievement. SLD diagnosis is not defined as having disabilities because of blindness, visual impairment, limited English proficiency, physical, intellectual disability (ID), emotional disturbance (ED), mental retardation, or socioeconomic disadvantages (TDOEa, 2018).

12. *Students with disabilities (SWD)*-a student with physical or cognitive deficiencies (TDOEa, 2018).

13. *Traditional school*- primary focus is on whole group instruction geared towards mastery of standards within a given content area (Epple et al., 2015; Oberfield, 2016).

14. *Virtual Reality (VR)*- virtual interactions are computer generated (Karagozlu, 2018).
CHAPTER TWO: LITERATURE REVIEW

Overview

This literature review provided a theoretical understanding of a comprehensive learning framework, its origin, and the impact of teachers' self-efficacy on ELA achievement (Ames, 1992; Bandura, 1986; Erickson et al., 2013; Kalulu et al., 2017; Vygotsky, 1978). This body of knowledge, while helpful to researchers studying TSES and ELA achievement, highlights the literature gap that exists concerning students with SLD achievement in all learning environments. Little to no studies have been conducted to explore inclusion teacher’s impact on ELA achievement. Thus, this study is necessary to provide relevant information to improve achievement among eighth grade SLD inclusion students. This quantitative study will be a much-needed addition to the empirical research currently available. Chapter Two is composed of at least four sections: (a) an overview, (b) theoretical framework (c) related literature, and (d) summary.

Theoretical Framework

Zone of Proximal Development

The role of having a theoretical framework for quantitative inquiry is to significantly influence the foundation of the research project. Inclusion teacher's impact on SLD literacy achievement is significantly founded on the accumulation of empirical knowledge (Gall et al., 2007). This literature review will examine the impact charter inclusion teachers have on ELA standardized test scores. For the purposes of this research, achievement relates to zone of proximal development (ZPD), classroom climate and culture, and teacher efficacy (Ames, 1992; Vygotsky, 1978). Educators who are equipped with the knowledge-base and confidence to effectively transmit information from abstract concepts to concrete ideas can improve students'
critical and analytical thinking skills. Vygotsky (1978), a psychologist, research in ZPD provides a breadth of knowledge on how teachers effortlessly support students’ needs yield greater academic gains. Impacting the ELA state test requires a multi-dimensional theoretical framework to better understand achievement efforts in minority subgroups with the assistance of intentional highly qualified professionals in all schooling environments.

Vygotsky (1978) research findings emphasized what a child can accomplish by their own mental abilities. The study indicates development is an intrinsic process reliant on the maturation level of the child necessary to bridge gaps between metacognitive levels of thinking and foundational skills (Vygotsky, 1978). The research describes learning as being an external characteristic of cognitive processing stimulated by experiential experiences and questions of inquiry distinct from formal classroom instruction. According to Vygotsky (1978), teachers believe when students learn one skill it enhances all others. Using researched-based strategies, students learn to apply competencies across multiple tasks or activities.

Vygotsky (1978) used a variety of studies to describe specialized skills as an essential component to academic success. For instance, spelling is a multi-dimensional linguistic framework independent of unassociated tasks. Skills are enhanced from repeated exposure to objects, events, and ideas applied to everyday life. Concrete concepts, themes, and ideas resonate from educators' ability to extend knowledge from intangible concepts to cross-curricular connections. Highly profound proponents of the research argue without intrinsic development as a prerequisite of maturation learning cannot occur. Therefore, Vygotsky's zone of proximal development (ZPD) further elaborates on theorist ideas to emphasize how educators should embrace what a child can achieve with the proper and intentional guidance of an adult at their current level of performance (Ames 1992; Vygotsky 1978). According to Vygotsky, zone of
proximal development refers to the growth span between actual and potential growth and development alongside the professional. Regurgitation or copying information is a short-term fix to mounting educational issues. SWDs should understand the skills' purpose and intricate connections to a larger body of curricular expectations. The study suggested ELA is a language acquisition necessary to increase communication within the learning community as well as servicing adults. Increasing ELA test scores for SWDs promotes the inclination to appropriately respond to challenges and meet rigorous tasks. Two-way questions of inquiry or ideas clarify misunderstanding. Students should participate in the learning process by probing for clarification, while educators should introduce new concepts in multi-dimensional platforms to bring abstract concepts into a sense of reality (Bandura, 1986; Vygotsky, 1978; Zimmerman, 2001).

Social Learning Theory

The concept of intellectual maturation as occurring in stages of social development brings into consideration Bandura's social learning theory (SLT). Like Vygotsky, Bandura (1986) addressed learning as an intrinsic value externally manifested through an individual’s wants and desires. Theorists argued that transitioning takes precedence over self-discovery (Zimmerman, 1986). Bandura et al. (1999) examined people's self-efficacy in the transitioning process and how knowledge given to a novice learner is not enough to expect proficiency of a skill. Students’ attainment of knowledge would need to undergo a more rigorous process to develop an adequate understanding of key concepts, themes, and ideas (Zimmerman, 2001). For this to occur, theories must have predictive power in determining influences on receptive behaviors (Winters, Carpenter, & Clayton, 2017a). Retention of information is observed through interactions within the environment. Therefore, Bandura's (1986) research examines a two-way causal effect in
which the environment is the influencer of the behavior and should not be treated as two separate entities. According to Guan (2015), "there are three major aspects of child development: (a) intrinsic value, (b) climate and culture, and (c) extrinsic value, which are characteristics of resilience that equals success" (p. 414).

In examining learning environments, Bandura (1986) finding revealed social learning communities heighten social competency. Response to social climate is initiated within the infrastructure. Charters' innovative methods and infrastructure can change coercive behaviors into constructive no-excuse collective communities when given the opportunity to creatively control the environment. An understanding of students' receptiveness to teaching and learning is motivated by commonalities grounded in individuals' interest, not the disability. Educators, policy makers, and district leaders can predict and control the low achievement phenomenon using self-regulatory strategies and techniques.

Children exposed to motivational climates foster resilience, an attribute of social competence (Bandura, 1986). A significant portion of SLD increases achievement with the appropriate operational management, teacher's motivational efforts (Vygotsky, 1978), and no-excuse resilience models as a value-added approach to raising ELA achievement.

Groundbreaking theorists’ studies on the academic development of children with SLD can predictively increase achievement effort (Ames, 1992; Bandura, 1986; Vygotsky, 1978). Achievement goals measure a student's motivation towards a given task or activity (Ames, 1992). Motivation is initiated by exploring the pursuit of knowledge. The measure of teachers' sense of efficacy stimulates the environment (Bandura, 1986). Comprehensively, the integration of cognitive and meta-cognitive instruction increases mastery learning in SLD (Ames, 1992; Bandura, 1986; Vygotsky, 1978).
Bandura and Vygotsky's concept of intrinsic and extrinsic development supports Ames claims of resilience equaling success. With the assistance of an intentional adult, and the use of innovative methods. SLD can apply strategies and techniques to relevant situations. To accomplish this, theorists suggest SLD should be an active participant in the learning process (Ames, 1992; Bandura, 1986). Learners who put forth an effort to master rigorous goals increase ELA test scores (Bandura, 1986; Vygotsky, 1978). Research indicates abstract concepts rely on realistic application in practice to influence concrete rationale (Ames, 1992; Vygotsky, 1978).

**Achievement Goal Theory**

The review of the literature will emphasize the effect climate and culture, self-regulation, and teachers' efficacy has on student achievement (Ames, 1992; Bandura, 1986; Vygotsky, 1978). Vygotsky's earlier studies provide an understanding of persistence in learning. Research findings emphasize there is a clear distinction between social development and motivation. The concept of motivation is subjective to the individual's predisposition to receive intrinsic improvement through teaching and learning (Ames, 1992). Students diagnosed with SLD learn in culturally, cognitively, and metacognitively driven environments. According to Ames (1992), social development is the improvement of an individual's intrinsic character to foster self-validation and achievement. Motivation is stimulated by external forces to behave within social 'norms'.

The problem of achievement gaps in ELA according to reports is an extended realization of historical connotations. ESEA (1965), FAPE (1973), NCLB (2002), and IDEA (2004) afforded SLDs the right to a decent respect, equal access, equity, equality, and quality education. The seminal study conducted by Vygotsky (1978) presents a broad theoretical framework that links dynamic tasks, activities, and practice as fundamental components of success for all students. Theorists and educational researchers’ views are based on self-regulatory actions,

Vygotsky's (1978) study suggested communication is key in the transmission of knowledge. Therefore, open discussion is a critical component of teaching and learning where students have an opportunity to present, receive, and generate new ideas. In a social context, information is perceived through individual experiences relative to their environment, exposure, and investment in the learning process. Theorists further argued that student motivation and motivational climates are two important constructs in recognizing the impact extrinsic motivation has on achievement, with an understanding of individual differences and motivational preferences (Ames, 1992). The capacity to learn is a multi-faceted concept based on adequate resources, programs, and services to undertake the complexities of educating SLDs.

More specifically, AGT focuses on a student's extrinsic effort towards a task rather than innate abilities. An extensive body of research implies effort is facilitated by teachers' interest in motivating the student to develop basic reading and writing skills (Ames, 1992; Bandura, 1996; Vygotsky, 1978) intricately connected to cross-curricular learning patterns. Therefore, educators’ sense of efficacy and knowledge base is a determining factor in students’ resilience and efforts to invest in the learning process. This concept is thoroughly explained and supported by evidence in the review of the literature. Likewise, a breadth of research suggests teachers who are given the autonomy to tailor instruction to meet students’ needs are more effective in increasing achievement (Ames, 1992; Bandura, 1986; Vygotsky, 1978).

A multi-tiered theoretical framework guided by a resilience model may close literacy gaps; thereby, increasing predictable results in ELA achievement in minority subgroups. Many influential researches on achievement, such as, Vygotskys' (1978) ZPD, Banduras' (1986) SLT,
and Ames' (1992) AGT, empirical assumptions have provided theoretical frameworks to increase motivational climates in classrooms throughout the United States (U.S.). Vygotsky’s (1978) SDT framework emphasized the importance of implementing stimulating student-centered task and activities. Vygotsky suggested collaboration and open discussions develop language acquisition. Since students learn through experiences and repeated collaborative practices, they can emulate problem-solving and decision-making skills. Bandura (1986) addresses predictive concerns with developing students’ self-efficacy, by considering the 'buy in' aspect of achievement. Children can learn in a stimulating environment; however, they must have the will to learn.

A sound theoretical framework provides educational leaders with relevant empirical information derived from past and present studies aimed to practically increase the achievement of minority subgroups. Historically, social, cognitive, and developmental theorists are responsible for contributing to empirical research on the relationships between achievement, effort, and intrinsic motivation found to be as prevalent today as it was in previous eras in education in the late 1970s, 1980's, and 1990s (Ames, 1992; Bandura, 1986; Vygotsky, 1978). The complex nature of cognitive growth is reliant on various empirical theories applied to a variety of domains in the field of behavioral and social science including education, organizations, sports, goals, interventions, and programming (Ames, 1992; Bandura, 1986; Vygotsky, 1978).

Complementary theoretical frameworks used in thriving charter schools, according to English language arts (ELA) standardized test scores, can significantly infiltrate traditional school settings in proximity (Ackerman et al., 2017; Pitre, 2014). Vygotsky's theory has received critical reviews from traditionalists who view performance over achievement (Angrist et al., 2013; Sahin et al., 2017). Theories provide a better understanding of intrinsic motives and
extrinsic forces (i.e., motivation and effort) of value-added theories that may predictively raise SLD achievement (Ames, 1992; Fagioli, 2014; Vygotsky, 1978). Value added theoretical models can help to close achievement gaps in low-performing charter and traditional schools where there are supportive systems of servitude leadership and a focus on academic excellence for all urban city youth (Waitoller & Thorius, 2015).

**Related Literature**

**Innovative Pedagogy**

In the late 1980s, England professor Ray Budde first conceptualized the idea of charters to introduce an innovative pedagogical method of teaching and learning used to increase achievement among all students (Weiner & Dougherty, 2016). Charters specialized educational curricula were strategically designed to competitively combat challenges with ELA and math low achievement across the U.S (Renzulli, Barr, & Paino, 2015; Sahin et al., 2017; Weiner & Dougherty, 2016). Achievement in charter schools is controversial; however, charter school achievement is promising for SLD minority subgroups often left behind their nondisabled counterparts (Erickson et al. 2013; Rapa et al., 2018; Renzulli et al., 2015). Studies suggested innovative initiatives lack empirical evidence to support school-wide systemic change to increase student achievement (Renzulli et al., 2015; Rapa et al., 2018). However, quantitative studies can help policy makers fully integrate socio-cultural responsive practices observed in value-added no-excuse model schools with innovative infrastructures, confident professionals, school-wide explicit reading and comprehension instruction/training, and additional interventive resources to overcome challenges with accountability and federal mandates (Boardman, Klingner, Buckley, Annamma, & Lasser, 2015; Choi et al., 2017; Wexler, Kearns, Lemons, Mitchell, Clancy, Davidson, & Wei, 2018).
The literature suggested inclusive environments alone are not an adequate solution to closing a persistent literacy achievement gap (Wexler et. al., 2018). Theorists further emphasize how traditionalist views widen the achievement gap among minority subgroups (Stein, 2015). Currently, an estimated 58% of SWD receive services in ELA, math, or both, in a general education setting (West et al., 2014). Equity in public charters can improve services for SLD (O’Neill & Rhim, 2015). Studies indicate that states with varying levels of school choice and financial support yield higher rates of literacy achievement (Cowen & Creed, 2017; Cullen et al., 2015). In a study of over 800 school districts, evidence indicated appropriately restructuring and managing financial budgets to encompass meaningful use of instructional funding will alleviate noncompliance and increase academic achievement. Currently, 61.5% of operational funding is allocated to classroom instructional resources; however, the research study suggested a 3.5% increase is necessary to provide teachers with necessary resources to focus on reading and comprehension metacognitive thinking skills and practices (Broadman et al., 2018; Cullen et al., 2015; Wexler et al., 2018; Wexler et al., 2016). The lack of resources in failing charter schools allude to a broader conceptual understanding of SLD underachievement (Schwenkenberg & VanderHoff, 2015). A comprehensive analysis of the literature will provide a thorough understanding of the phenomenon (West et al., 2016).

Charter management organizations (CMO), educational management organizations (EMO), policymakers, school districts, and building-level administrators in both charter and traditional school sectors will be able to make important decisions based on empirical evidence of effective value-added frameworks (Fagioli, 2014; Zimmer et al., 2014). A thorough review of the literature was conducted to examine open enrollment charters’ effectiveness on SLD literacy standardized achievement outcomes. Research topics identified educational reform, charter
schools’ development, financial management (e.g., accountability), legislative compliance, charter initiatives, and increasing SLD achievement as the infiltrating effect autonomy can have on mastering proficiency (Carlson & Lavertu 2018; Guan, 2015).

**Charters Historical Background**

As early as the 1970s, U.S. lawmakers began to indulge in the idea of alternative learning. By 1991, the federal government enacted a law granting permission for the establishment of the first charter. Initially, the proposal to restructure U.S. traditional schools was in response to federal mandates for accountability to assure all students are provided with a quality education (Eckes, 2015; Kose, 2015; Marshall, 2017; Milliman, 2016; National Alliance for Public Charter Schools, 2015; Pitre, 2014). According to ESEA (1965), a quality education is having highly qualified professionals who can effectively manage conducive learning environments with resources and programs to promote academic success (Choi et al., 2017; Cohodes, 2018; Fagioli, 2014; Klein, 2017; O’Neill & Rhim, 2015).

As early as 1992, St. Paul, Minnesota alternative schools responded to a vastly reported failing educational system (Abdulkadiroğlu et al., 2016; Angrist et al., 2013; Barnard-Brak et al., 2018). Charter’s resurgence is now rooted in over 44 states around the U.S., including the District of Columbia and Washington, D.C. (Education Commission of the States, 2019; Weiner & Dougherty, 2016; Renzulli et al., 2015). The reauthorization of charters sparked the ESEA movement in a race to increase achievement scores (De Luca & Wood, 2016; Renzulli et al., 2015; Winters et al., 2017a). A multitude of initiatives were launched to curb the onset of low literacy achievement in public schooling environments. Pre-K interventions, reduced classroom sizes, extended school years, staff and student incentives, boarding programs, and one-to-one use of technology, are the new copycat practices of traditional schools (Curto & Fryer, 2014). Since
states are responsible for elementary and secondary education, approving laws to alleviate failing charters noncompliance will assist school systems in meeting rigorous goals (De Luca & Wood, 2016).

Presently, charters' enrollment accounts for 5% of the public-school system (Cheng et al., 2017), with over 3 million across 7,000 schools (Chabrier et al., 2016; Weiner & Dougherty, 2016; Winters, 2015). Researchers argue that innovative infrastructures and significant enrollment gain alone does not determine rate of achievement. Instead, theorists believe metalinguistic skills are significant to students' application of metacognitive connections (De Luca & Wood, 2016; Grasparil & Hernandez, 2015). The promising efforts of CMOs address concerns with equal and equitable inclusion practices, with SWD, where low cost often takes precedence over opportunity (Bifulco & Buerger, 2015; Curto & Fryer, 2014; De Luca & Wood, 2016; Gill et al., 2016). In a study replicating experimental outcomes on nonexperimental methods, CMO reported SLD middle school standardized reading scores range from 5% to 14% (Grasparil & Hernandez, 2015). Evidence from the National seeking Educational Equity and Diversity (SEED) project reports a 17% percent growth in reading in comparison to traditional counterparts (Curto & Fryer, 2014).

Proponents suggest charters complicate public schools' attempts to correct persistent failure. Charter’s decentralization alleviates traditional approaches to teaching and learning except for minimal innovative practices (Berends, 2015; Paino et al., 2014). Past research studies suggested dynamic infrastructures cultivate intrinsic and extrinsic values of self-worth to promote perseverance (Ames, 1992; Bourgeois & Boberg, 2016; Cottrell & Barrett, 2017; Cullen et al., 2015; Guan, 2015; Vygotsky, 1978).
Operational Management

For this study, public charters are as defined by Weiner and Dougherty (2016) nonprofit alternative schools funded by the government with the legal autonomy to implement innovative curriculum and instruction (Maria, 2018; Murray et al., 2019; West, 2014). Charters' board of trustees determine administration, expenditures, and general policies (Milliman, 2016). The School Reform Act of 1995 allows CMOs to freely make decisions outside of traditional LEA governance. School systems have the autonomy to make funding, staffing, and operational management decisions to provide innovative services outside the limitations of traditional school policies and procedures (Bifulco & Buerger, 2015; Chabrier et al., 2016; Cheng et al., 2017). Charters' governance makes it difficult to generalize specific characteristics of individual charters, since organizational infrastructure can differ in levels of expenditures, professional expertise, programming, transportation, instructional resources, extra-curricular activities, special education, and intervention services (De Luca & Wood, 2016, Weiner & Dougherty, 2016). Proposed mission statements are used to obtain accreditation and gain permission to solicit information that attract parents to an alternative school of choice in hopes of matching students’ interest. Instructional plans usually entail targeted populations often found in urban low performing communities. Curriculum and instruction describe innovative goal initiatives (Renzulli et al., 2015). Like traditional schools, charters must adhere to federal mandates to provide a quality education for all students in compliance with academic standards (De Luca & Wood, 2016, TDOEa, 2018).

Online applications open in the spring for parents to match students to schools of interest (Winters et al., 2017a). District administrators process the forms with up to five categories of choices. Choices may vary between charter and traditional public schools. Central office
personnel consider seating availability and preference categories to match students. Providing categories alleviate bias among targeted neighborhoods. SWD initiatives are the highest percentage of the enrollment gap between charter and traditional schools. As public charters shift across the southwestern region of the U.S., researchers strive to analyze effective operational management to better understand low achievement in striving schools (Pannell et al., 2015; Thornton et al., 2015; Weiner & Dougherty, 2016). Findings reveal, in many cases, charters are not equipped to offset additional cost necessary to meet federal mandates, often the cause of noncompliance, low enrollment, and financial disparities endangering the vitality of innovative programming (New America Foundation, 2015; Piano et al., 2014; Weiner & Dougherty, 2016, Winters, 2015).

Charters receive funding based on a formula contingent upon student enrollment the same as traditional schools. Traditional and charter schools are eligible for up to $7000 per enrollee; however, charters often receive a significant amount less than traditional competition. Findings from a study conducted in Arizona reported funding cost per student averages approximately $7800 in comparison to a difference of $1,765 allocated to traditional school settings. In addition, charters receive an allowance of over $2,000 typically used as business investments (Weiner & Dougherty, 2016). A significant number of charter schools are in high operating cost areas where pupil expenses constitute higher financial gains. Charters solicit high achieving students with well-educated parents to lower the cost of additional services and minimal effort to promote growth. CMO's strategically target low-cost students to sustain capital gain, further perpetuating low enrollment of minority subgroups. Highly qualified professionals are solicited at low cost. Charter organizations rent in low-cost areas with high commercial rates further
suggesting charter financial responsibilities are determined by location, financial gain, and enrollment cost (Bifulco & Buerger, 2015).

The idea of comprehensive specialized programs and creating access to opportunity, according to Renzulli et al. (2015), is a fundamental component of educational reform and a predictor of charters' ability to increase academic achievement where traditional schools are lagging (Waitoller & Thorius, 2015; West, 2016; Weiner & Dougherty, 2016; Kose, 2015). Findings from a study in Arkansas reported no statistical differences between literacy achievement, but room for further exploration (Crutchfield, 2015). The problem is that ESEA requires charters to provide additional services to SWD. Financial challenges are attributed to low performing charters where funding and resources are limited (Eckes, 2015; Weiner & Dougherty, 2016). Charters' ability to pursue innovative concepts is pertinent to dispelling truths about SLDs' ability (Eckes, 2015; Finn et al., 2014; O'Neil & Rhim, 2015; Weiner & Dougherty, 2016) to catch up to their counterparts on ELA standardized test. Tailoring students' interest to cognitive and noncognitive development (De Luca & Wood, 2016; Eckes, 2015; West et al., 2016) intrinsically motivates and extrinsically engages students in the learning process (Ames, 1992; Guan, 2015; Vygotsky, 1978). Renzulli et al. (2015) 14 years of longitudinal data collection from Center of Educational Reform (CER) indicated failing charters have issues with funding and adequate facility space; thus, a reason for low test scores (Cullen et al., 2015). Research analyses indicated, if policy makers meet the needs of charter relative to the offset of cost, they would alleviate charters' challenges with federal mandates impeding innovative missions since operational management of all public schools require SLD to receive services afforded under the laws of IDEA and FAPE ((Bifulco & Buerger, 2015; O'Neil & Rhim, 2015; Yell & Christle, 2017; Zhang & Zeller, 2016).
Charter School Types

The divergence of Minnesota charter schools affords families across the U.S. equal access to school choice free of financial barriers stagnating minority subgroup’s ability to take advantage of integrative curriculum, select organizational management, diversified learning, and achievement goals (Pitre, 2014; Sahin et. el., 2017). Charters are a part of a decentralized market of accountability charged with improving the value of education by addressing students’ needs with specialized educational programming to increase student achievement as a spillover effect to traditional schools (Bifulco & Buerger, 2015; Clark et al., 2015; CREDO, 2015; Zimmer et al., 2014). Findings suggest some types of charter schools "(e.g., Knowledge is Power Program [KIPP] and other “no-excuses”) in urban disadvantaged geographical areas significantly increase students’ ELA standardized test scores (Cheng et al., 2017; Sass et al., 2016, p. 684).

A metacognitive analysis conducted in 2017 analyzed the effect no-excuse models have on charter schools' achievement. The report describes significant gains of 0.25 and 0.17 in literacy achievement (Angrist et a., 2013; Cheng et al., 2017). A larger effect size of 0.27 standard deviations was reported by KIPP, further suggesting positive gains on literacy standardized test scores (Boyd, 2014; Cohodes, 2018). Researchers also found no-excuse models have a positive effect on the 34, 984 Tennessee charter school students (Cheng et al., 2017; Cohodes, 2018; National Alliance for Public Charter Schools, 2015). Findings support alternative school’s potential to balance inequities among impoverished disadvantaged minority subgroups where low achievement consistently trends in reading and math among African American and Hispanic subgroups often diagnosed with SLD further propelling the necessity of present-day reform (Cheng et al., 2017; Choi et al., 2014, Contrell & Barrett, 2017; Crutchfield, 2015; Murray et al., 2019; Stein, 2015; Pitre, 2014). The autonomy to increase literacy gains
among groups experiencing socioeconomic disparities attract parents seeking unique development of educational skill sets provided by varying charter types (Cheng et al., 2017; Cohodes, 2018; Crutchfield, 2015; Fagioli, 2014; National Center for Education Evaluation and Regional Assistance, 2016; Rapa, et al., 2018).

**Open Enrollment**

Currently, there are more than 6,800 charters servicing over 3 million students across the U.S. (Kalulu et al., 2017; Sass et al., 2016). Forming charters in Tennessee requires diversification and are often located in urban communities (Credo, 2016, TDOEa, 2018). Charters have the option to accept or reject admittance outside of district boundaries (TDOE, 2018a). School systems have the autonomy and flexibility to make curriculum decisions outside of traditional public schools’ rules and regulations (Peterson et al., 2017). Researchers argue autonomy requires stricter governmental mandates (Bifulco & Buerger, 2015). Currently the state, and federal government, is responsible for monitoring accountability of CMO and EMO to secure the civil rights for all students to have an opportunity to achieve (Erickson et al., 2013; Pannell et al; 2017; Pitre, 2014).

In the state of Tennessee, charter organizations sign 10-year terms of agreement to occupy space, unlike traditional schools. With 60% of student membership or 60% teacher approval, a traditional school can be converted into a charter, provided parents have school choice without prejudice (TDOEa, 2018). Traditional school districts are the local education agency (LEA). Any group or organization can acquire accreditation through the local school board or achievement school district (ASD) for operation; however, no religious-based, private, or for-profit group proposals will be granted. Preference is given to institutions who service bottom 5% groups with achievement deficits in ELA and math (Cheng et al., 2017; Pitre, 2014).
Also, preference is given to charters identified as servicing free and/or reduced lunch. Tennessee Code Annotated § 49-13-106 and Tennessee Code Annotated. § 49-13-113 specify who is given enrollment preference. Opposition to open-enrollment charters report concerns around the effect on traditional school state funding with the depreciation of the housing market and the reallocation of tax revenue (Kalulu et al., 2017).

Priority primarily goes to students or siblings who attended or want to attend the school. If the school is not at capacity, it must hold a lottery for admission. Children of teachers, board members, and sponsors may also be given preference with up to 10% of student membership (Cowen & Creed, 2017). Charter schools do not have to provide transportation; however, a transportation plan must be included in the initial proposal. If a charter does decide to provide transportation, the LEA must redistribute funding to the host school to offset cost (De Luca & Wood, 2016, Renzulli et al., 2015; Weiner & Dougherty, 2016).

**Lottery-based**

Charters are subscribed or unsubscribed. Ackerman and Egalite's (2017) synthesis suggested there are discrepancies in differences between oversubscribed and undersubscribed charters. Students are accepted depending on the availability of space. Once space becomes unavailable, CMOs require charters to hold a lottery. The lottery is held in a centralized location to prevent parents from submitting multiple applications throughout the district. Students’ education relies on winning an open spot (Chabrier et al., 2016). Research studies showed students who win an open spot have a greater opportunity at raising achievement (Abdulkadiroğlu et al., 2016; Chabrier et al., 2016; Zimmer & Engberg, 2016). If students are not accepted, parents are subjected to less attractive options for school choice (Murray et al., 2019). Students in oversubscribed charters often lack eligibility requirements for free or reduced-
price lunch, do not require special education services, or English as a second language (ESL)/English language learners (ELL) service (Clark et al., 2015). In a study of Boston charters without lotteries, reports indicated the proliferation of approximately 1,100 charter schools with 43.6 percent enrollment within a four-year span (Abdulkadiroğlu, et al., 2016). Further research indicated extensive studies regarding lotteries can promote achievement gains of impoverished disadvantaged subgroups by 0.4 standard deviations.

**Pros and Cons**

Since its emergence, enrollment in charter schools across the U.S has increased between 2000 and 2017 (NCES, 2019; U.S. Department of Education, 2016). Autonomy can have a positive impact on traditional schools’ performance (Kalulu et al., 2017) when parents and students are provided with satisfactory educational choice effectively matched with student interest (Cheng, Trivitt, & Wolf, 2016; Kisida & Wolf, 2015). The autonomy of innovative curriculum and instruction (Oberfield, 2016) cater to a parent’s expectation of academic achievement, climate, culture, and equality (Maria, 2018; Murray, 2019). Students are pre-exposed to skills relevant to future career choice, as well as college and career readiness (Angrist et al., 2016).

Thriving charter schools have committed to no-excuse approaches to redevelop traditional views of effectiveness (Cheng et al., 2017; Erickson et al., 2013). Innovativeness requires a change in organizational infrastructure (Honebein & Honebein, 2015; Nichols-Barrer et al., 2016). Access to charters is not sufficient when resources and services are not readily available (Cullen et al., 2015). Poverty-stricken communities can benefit from school choice in enrollment; however, admittance boundaries further perpetuate low achievement among subgroups with some CMOs having the power to deny, accept, or rescind accreditation as a
primary factor for special needs subgroups from gaining access (Angrist et al., 2016; Cheng et al., 2017; Curto & Fryer, 2014; Klein, 2017; Kose, 2015; Marshall, 2017; Milliman, 2016; Miron, 2014; Whitehurst et al., 2016).

Meta-analysis research indicated urban charters increase achievement scores by a third standard among minority subgroups facing socioeconomic disparities (Klein, 2017; Pitre, 2014; Winters et al., 2017) as seen in oversubscribed Boston charter schools offering potential effects on SWD (Angrist et al., 2016). Tailored career choices are designed to provide experiential, cognitive, and metacognitive learning experiences aligned with prerequisites in K-12 classroom environments (Broadman et al., 2015; Honebein & Honebein, 2015; Milliman, 2016; Murray et al., 2019; Stein, 2015; Wexler et al., 2018). Educational paths are aligned with the skills and competencies necessary for college, career, and socioeconomic competence making students better equipped to persevere through rigorous academic challenges (West et al., 2014).

**Educational Effectiveness**

Alternative educational solutions are sweeping across the U.S. to address federal, state, and district expectations of achievement for all students (Weiner & Dougherty, 2016). There are various types of charters contributing to educational reform. Analyzing similarities and differences in thriving charter schools can help to successfully predict positive outcomes in ELA (Milliman, 2016). NCLB, IDEA 2004, ESSA, and Free and Appropriate Public Education (FAPE) are responsible for enforcing academic accountability in traditional and charter school sectors. Since academic and federal compliance can determine charters' authorization, it is important to identify the adverse effect the lack of funding has on services provided to students with individualized education plans (Clark et. al., 2015).
According to the Education Commission (2019), Tennessee charters do not have to adopt the districts' curriculum; however, they are encouraged to adopt national standards in alignment with ESEAs' idea of providing a quality education for all students (Weiner & Dougherty, 2016). In addition, charters, like traditional schools, require teacher certification to ensure highly qualified instructors are the guides of teaching and learning in the classroom. Urban school districts and school leaders can motivate teacher self-efficacy, reexamine challenges with racial sorting, extend discussion on policies related to autonomy, and systemically attain resources necessary to raise SLD student achievement (Herrmann et al., 2014; O'Neill & Rhim, 2015; Rapa et al., 2018; Ritter et al., 2016; Stein, 2015; Waitoller & Thorius, 2015; West et al., 2014). Characteristics of achievement can be attributed to modeled actions carried out through professional duties with the ability to elevate student performance within reasonable increments until mastery of the goal is met ((Ames, 1992; Bandura, 1986; Gius, 2016; Gleason, 2016; Grigg & Bormans, 2014; Herrmann et al., 2017; Vygotsky, 1978; West et al., 2014)). Standards of accountability in an era of educational reform has caused a significant shift in teaching and learning to competitively engage students inside and outside the classroom (West et al., 2014). Charters' innovative programs can diversify the advancement of technical and business markets (Renzulli et al., 2015).

Counteractions against inequities and inequalities among school age students during the mid 60s and seventies warrant an analysis of why charters fail, outlook on survival, and long-term effects on enhancing the quality of life with future earnings (Sass et al., 2016; Schwenkenberg & VanderHoff, 2015). Theorist consideration towards how the brain works, social development, and self-efficacy are the catalyst for creating various avenues of educational
opportunities and increasing student achievement (Dent & Koenka, 2016; Eckes, 2015; Epple et al., 2015).

**Legislative Compliance**

Initiatives to improve charters' effectiveness in meeting the needs of SLD focuses on an accumulation of quantitative literature reviews addressing organizational management as explored in Milliman (2016) analysis of traditional vs. charter school’s deficient educational outcomes. According to Milliman (2016), deficient is defined as having a four-year track of either improving in alignment with district systemic academic standards of achievement or allowing students transferability to attend higher performing schools. "Low performing schools that do not shut down after a four-year period are noncompliant" (p. 73).

Educational scholars have frequently expressed concern over charter segregated recruitment measures to marginalize SWD who require additional funding to increase educational opportunities (Eckes, 2015). An analysis of Arizona market share was used to gain a greater insight into 13.3% of U.S. influence on low performing schools for which district and policy makers has some control over (Milliman, 2016; Peterson et al., 2017). The analysis examined standardized test score achievement across grade levels to determine the extent or rate of improvement in traditional and charter school types (Milliman, 2016). Since SLDs require supplemental services, such as an individualized learning plan (IEP) and response to intervention (RTI), both federally mandated, educational stakeholders must adopt district level policies and procedures to incorporate the cost of technological programming and professional development to ensure teachers can effectively provide students with the tools they need to succeed. Research suggested that educational improvements accrue when CMOs share resources, services, and supports lacking in schools that service SWD ((Barnard-Brak et al., 2018; Choi et al., 2017...
Oberfield, 2016; Thornton et al., 2015). Charters experiencing low enrollment because of the lack of accessibility, often become carbon copies of traditional school setting (Renzulli et al., 2015).

Additional Services

Students diagnosed with SLD receive supplemental services addressed in an IEP to accommodate deficits in ELA and/or math content areas (Winters, 2015). Inclusion services consist of a certified SPED and core teacher in ELA and math classrooms. Goals are tailored to the student's current level of performance (Vygotsky, 1978). In traditional and school settings, SLD access curriculum and instruction alongside nondisabled peers except for RTI intervention services, is provided in a resource setting. RTI services determine SLD special education eligibility pertinent to compliance. Charter schools qualify for intervention under the state's ESEA waiver (TDOEa, 2018). With students expected to test alongside nondisabled peers on ELA TNReady standardized assessments, higher standards for quality education and innovation are necessary to meet the rigor of standardized assessments (TDOEb, 2019).

Winters (2015) conducted a study in Denver with student-led data to understand a significant 10% gap in students who attend charter versus traditional schools to account for controversial discrepancies in charter achievement. The purpose was to understand and clarify instances of failed charters in comparison to a more predictive scope of thriving charters who offer sustainable effects traditional schools can benefit from when comprehensive theories are applied (Ackerman et al., 2017; Choi et al., 2017).

Managing Funds

Guis's (2016) research critically examined the influence job satisfaction and competency had on developing positive work climates consistent with Ames' (1992) analysis of school
organizational structures. Funding used to cultivate efforts of positive engagement among teachers and students are implemented in charters' most effective schools (West et al., 2014). The study described teachers’ responsibility and accountability as being flexible, transparent, reflective, and creative (Choi et al., 2017). Research studies emphasized the need for educational leaders to examine charter schools’ effectiveness in reading, writing, and math to foster positive expected spillover effects into traditional public-school systems (Choi et al., 2017; Cordes, 2018, Eppele et al., 2015). Equitable classroom environments provide equal access to resources and services that engage students in the learning process (Choi et al., 2017; Maria, 2018).

Research studies provide consistent evidence of teacher's self-efficacy and the influence it has on teacher's job performance in fostering positive achievement outcomes (Bandura et al, 1999; Callaway, 2017; Colson et al., 2017; Guis, 2016). Herrmann et al. and National Center for Education Evaluation and Regional Assistance (ED) (2014) research studies suggested that teachers in low-performing schools apply 'best practices' supported by school improvement grants (Carlson & Lavertu, 2018; Curto & Fryer, 2014). Statistically, effective teachers showed a greater satisfaction in public schools where flexible pedagogical methods of teaching and greater parental involvement were apparent (Cordes, 2018; Eppele et al., 2015).

**Academic Effectiveness**

In the state of Tennessee alone, out of 1,693 public schools, approximately 250 traditional schools are low performing. Charter schools account for 48 public schools with 11.76% students in six schools performing below expectations (Weiner & Dougherty, 2016). Milliman (2016) and Choi et al. (2017) asserts, U.S charter schools’ effectiveness is a complex system of accountability. On average across the U.S, 68% of eighth grade students have acquired basic reading skills with 53% of students scoring below grade level on state standardized tests.
Study reports indicated only 26% of students are reported to have met proficiency or mastered skills (Boardman et al., 2015).

Further, studies indicate there is a relationship between governmental agency’s role and responsibility in closing the achievement gap (Callaway, 2017). By increasing co-teachers' participation in classroom instruction with evidence-based strategies used during whole and small group discussion, students will receive the help and motivation they need to be successful (Boardman et al., 2015; Callaway, 2017; Wexler et al., 2018). Read aloud strategies observed in many traditional classroom environments to accommodate SLD literacy deficits is efficient, but not effective enough to increase literacy skills necessary to apply to complex text, nor cognitive and metacognitive thinking (Boardman et al., 2015; Wexler, et al., 2018; Reed et al., 2015). Varying co-teaching models can increase students' effort and teachers' ability to enhance the climate and culture of collaborative learning communities (Boardman et al., 2015; Carlson & Lavertu, 2018; Choi et al., 2017; Cohodes, 2018). It is essential for all schooling environments to provide marginalized groups access to specialized skill sets, varies analytical and critical thinking strategies, and best co-teaching practices where co-teachers take a more prominent role in implementing specific strategies throughout lessons creating opportunities for all students to learn (Boardman et al., 2015; Herrmann et al., 2017; West et al., 2014).

Consequently, funding disparities result in adverse effects on charters’ ability to hire highly qualified SPED teachers; thus, low ELA test scores (Klein, 2017). Statistical outcomes in Iowa reported effective outcomes with an overall 0.05 improvement of performance in elementary (Kalulu et al., 2017). In Southern California, Rapa et al. (2018) analyzed (N=53,733) participants' math and ELA achievement scores. Students had either a 504 plan or an IEP. Findings revealed that low value-added schools performed below basic at 32%, whereas high
value-added schools were raised by 35%. Boardman et al. (2015) addressed reading difficulties with the use of effective collaborative reading strategies (CSR) to combat deficiencies intricately connected to Ames (1992), Bandura (1986), and Vygotsky (1978) theories addressing socio-cultural, evidence-based strategies used in value-added schools. There is mounting concern whether achieving proficiency for minority subgroups with IEPs is plausible in charters without extensive support (Winters, 2015). However, innovative explicit instruction is plausible especially in all K-12 schools where school leaders encourage core teachers to work more effectively and intentionally with co-teachers, instead of employing back seat roles to offering specialized support (Boardman et al., 2015; Wexler et al., 2018).

School improvement grant (SIG) programs report positive effects on student achievement in alignment with effective school leadership (Zimmer et al., 2014) who take into consideration the various factors in overcoming the rigor of TNReady standardized assessments (Carlson & Lavertu, 2018). For instance, Maria (2018) conducted research to examine online instructional environments' impact on students with special needs and how effective charters were at addressing achievement concerns. Intentional use of technology in the general education setting can increase analytical and critical thinking skills in a generation far removed from traditional instructional practices under the guidance of knowledgeable professionals. Extensive studies suggest videography, interactive organizers, pictures/artifacts, visual mnemonics, objective summarization, visualization, main idea/theme identification instruction, and think aloud questioning strategies (Maria, 2018) improve SWD reading comprehension (Honebein & Honebein, 2015; Solis et al., 2014). However, Karagozlu (2018) suggested moving beyond traditional strategies to introduce new technological resources to foster “out of class activities” in an augmented virtual world.
Although charters' effectiveness on standardized state tests has been examined, long-term effects of open enrollment charters have on college and career readiness requires further study. Findings from previous research conducted by Sass et al. (2016) suggested charter school graduates enroll in college and are better equipped to earn higher salaries in comparison to traditional schools. Increasing student skills and overall competencies to meet the needs of community’s help charters to gain legitimacy and maintain accreditation (Paino et al., 2014).

**Legitimacy in Achievement**

Self-regulated learning mirrors KIPP's no-excuse model drawn from social cognitive theory emphasizing students as responsible agents of behaviors and professionals modeling of expectations (Cheng et al., 2017; Davis & Heller, 2015). Although self-regulated learning is widely accepted, educators continue to have difficulty with transforming theoretical conceptualizations into practical implementation, whereas educators motivate behaviors reflective of intrinsic and extrinsic resilience. According to Dent and Koenka (2016), self-regulated learners are defined as individuals who can effectively engage in the learning process using strategies and techniques to support mastery of academic skills. Students can choose what strategies best apply to activities, tasks, and/or assessment types.

SLD achievement in public school settings consists of 10 major components: (a) unpacking of standards, (b) scaffold introduction, (c) pre teach vocabulary, (d) text dependent questions, (e) use of question stems, (f) guided practice, (g) independent practice, (h) periodic checks for understanding, (i) closure, and (j) summary of key, thoughts, themes, and ideas (Thornton et al., 2015). Thornton et al. (2015) suggested, conducive learning environments are reliant on the effectiveness of modeling inclusive practices, no-excuse models, and innovativeness often limited in the general education classroom. Maria (2018) described
essential components of learning as explicit instruction, metacognitive strategies, and cooperative learning within flexible grouping settings. Studies suggested motivation determines behavior adversely affecting time on tasks (Ames, 1992; Bandura, 1986; Dent & Koenka, 2016; Guan, 2015; Vygotsky, 1978). Therefore, highly qualified professionals should encourage perseverance through difficult tasks with engaging use of technology that moves beyond flat platforms. Students should be exposed to innovative learning opportunities in an era of technological advances (Maria, 2018).

Implementing Reform Initiatives

During the 2015-16 school year, Tennessee standardized assessment system went through a major overhaul. Tennessee Comprehensive Assessment Program (TCAP) assessments changed to Common Core, a more rigorous means of measuring student performance (U.S Department of Education, 2014). Currently, sixth through eighth grade middle school students are administered TNReady assessments, a hybrid of previous TCAP standardized assessments. Educational shifts in assessment types competitively prompted school leaders to take a greater responsibility for operational management, professional developments, and funding opportunities to develop inclusive and innovative practices seen in effective charter schools. SPED teachers who modify instruction, differentiate tasks and activities, scaffold lessons, provide additional resources, and use repetitive strategies offer SLDs full access into the general education curriculum (Chen et al., 2016; Choi et al., 2017; Sahin et al., 2017).

Federal and state policymakers in the U.S have sought to better differentiate the performance of K-12 teachers by enacting more rigorous evaluation policies. Sarah, Pogodzinski, Mayrowetz, Superfine, and Umpstead's (2018) study investigated whether charter policies/procedures were working as intended, exploring whether funding deficits, governance,
or district mandates are negatively or positively associated with educational outcomes (Winters et al., 2017b). In a larger predictive context of charters' effectiveness, policymakers were seeking to align evaluation policies with current research to encourage positive motivational climates necessary to increase self-regulation in children (Dobbie & Fryer, 2015; Guan, 2015). District leaders can benefit from district-level systemic changes to address 21st century building level needs and supports (Choi et al., 2017; Cordes, 2018; Cowen & Creed, 2017; Curto & Fryer, 2014). A revision of policies governing charters is necessary to allow schools to use the flexibility (Peterson et al., 2017) granted to them to improve innovative endeavors and enhance the quality of education (Dobbie & Fryer, 2015). Developing teacher quality in charter schools will result in improved student performance; however, this success may come at a cost of 'attrition' due to minimum value placed on knowledge-based content training for SPED teachers (Choi et al., 2017; Clark et al., 2015; Colson, Sparks, Berridge, Frimming, & Willis, 2017).

Charters' long-term effect on SLD college and career readiness support individuals, communities, and society at-large the ability to sustain the quality of life as a positive reformation to traditional schools (Epple et al., 2015; Fryer, 2014). Findings show upon graduation students show multi-faceted competencies requiring self-initiated motivation and perseverance. Intrinsic and extrinsic values are life skills necessary to combat the challenges of a striving educational system and inequitable economy. Evidence from studies showed positive effects on literacy test scores when teacher efficacy precedes the broader outcome on student achievement (Dent & Koenka, 2016; Sass et al., 2016). Like traditional schools, charters must implement interventions for SLD to support academic achievement (Wexler et al., 2015). Weiner and Dougherty (2016) suggested further investigation of underperforming charters to alleviate unintended consequences.
Summary

Across the U.S., SLD continue to lag behind their nondisabled counterparts in ELA performance (Clark et al., 2015; Erickson et al., 2013) further substantiating a need for charters' new method of innovative teaching and learning to spill over into traditional disadvantaged urban communities across 44 states (Bourgeois & Boberg, 2016). Educational reform is founded on the principles of equity and equality (Angrist et al., 2013). Under the laws of IDEA, ADA, ESEA (2015), NCLB, and FAPE, all public-school systems are required to provide a free and appropriate quality education for all students (Choi et al., 2017; Cordes, 2018; Weiner & Dougherty, 2016). In the fall of 2016, 14 charter schools existed in the state of Tennessee (NCES, 2015). In 2019, over 30 charters were populated in the school district. With a 40% SLD achievement gap in reading and/or math (TDOE, 2018), open charters' high-stake investment in public education, according to Barnard-Brak et al. (2018), is to provide alternative innovative curriculum and instructional solutions to alleviate low-achievement persistent in traditional schools.

Charters decentralized governance brings with it some debilitating drawbacks, such as insufficient funding, lack of accessibility, resources, quality teachers, and services necessary for charters to compete with traditional school sectors (Barnard-Brak et al., 2018). Decentralization gives charters the power to develop a unique infrastructure outside of traditional school regulations (Klein, 2017). Charter schools' innovative solution to teaching and learning has the potential to increase ELA achievement among subgroups by minimizing diagnosis of SLD with access and exposure to school choice and interest matching (Callaway, 2017; Cohodes, 2018; Cordes, 2018; Cottrell & Barrett, 2017; De Luca & Wood, 2016; Dobbie & Fryer, 2015).
Every Students Succeeds Act (2015) legislation is necessary to increase SLD English language arts standardized test scores (Wexler et al., 2018). Minority subgroups face socioeconomic adversities inside and outside public-school systems. Research studies indicated limited resources create inequitable opportunities and segregated learning environments. Operational management, teacher and student efficacy, all work to create motivational learning environments with collaborative learning strategies initiated to engage students’ interest in specialized skills. By focusing on mastery of skills, SLD can increase student achievement. Researchers dispel truths about SLD inability to stay focused, to think critically and analytically (Cowen & Creed, 2017). This study offers an extensive theoretical, historical, and present review of the literature to help educators further understand the relationships between achievement gaps and effective teaching for SLDs (Choi, et al., 2017). The complexity of raising SLD achievement is grounded in educators' roles, responsibilities, mentorship, pedagogy, reflection, engagement, and preparation of 'best' teaching practices in mastery learning environments (Throndsen & Turmo, 2013).

The multidimensional theoretical framework helps to clarify roles and responsibilities of organizational management, teacher effectiveness, and mastery of academic goals. An organic shift from traditional direct instruction to the implementation of charter's innovative models of teaching and learning to change public schools' district, school leaders’ infrastructure, and perception of pedagogical practices. State and district leaders’ high expectations for rigor, student-centered engagement, self-generated questioning, clear and concise feedback, cultural engagement, classroom management, and inclusive climate and culture, is necessary to develop cognitive and metacognitive reading, writing, and mathematics skills (Cordes, 2018). Policy
makers favor accountability measures that are based on value-added models as the most reliable means of measuring school's equal and equitable access to opportunity (Swanson et al., 2015).

In an era of accountability, students diagnosed with SLD are held to the same expectations of achievement as nondisabled peers on state standardized tests regardless of their current level of performance (Swanson et al., 2017; TDOE, 2018a; TDOE, 2019b). Educational disparities among minority subgroups are deeply rooted in educational reform and accumulation of quantitative research. Policy makers, CMOs, district, and school leaders will need to equip themselves with adequate funding, servitude leadership, knowledge-based professionals with a sense of efficacy, programming, and services to motivate achievement to support traditional school settings (Carlson & Lavertu, 2018; Colson et al., 2017, Cordes, 2018). Current research indicates, charters' autonomy and accountability in raising achievement among SLD must exploit and accept the notion of motivational climates to foster hope, self-worth, and resilience before students can 'buy into' the learning process (Ames, 1992; Bandura, 1986; Guan, 2015; Klein, 2017; Vygotsky, 1978).

According to Klein (2017), the synthesis of the literature, although quantitatively inconclusive, addresses the central phenomenon of open enrollment charters' adaptation of autonomy and innovativeness to effectively foster ELA achievement for minority subgroups (O'Neill & Rhim, 2015; West et al., 2014, West et al., 2016). Effective charter schools view autonomy as quality, diversity, flexibility, and accountability (Carlson & Lavertu, 2018; Marshall, 2017; Milliman, 2016; Oberfield, 2016). Value-added models such as, KIPP and Promise Academy, enact no-excuse models as a reliable source in predicting student achievement (Fagioli, 2014; Tuttle et al., 2015). Charters’ effective practices can inform policy makers on how to better address the needs of unique learners who bring with them interrelated
socioeconomic internal and external factors of disparities unrelated to public school systems (Federal Education Budget Project, 2014; McKenna et al., 2015; Pitre, 2014). SLDs have an educational right to fully receive a quality education in an inclusive classroom environment among nondisabled peers. Effective charters use equity-based practices deeply rooted in theories relative to social, cognitive, and motivational development known to increase learning outcomes (Finn et al., 2014; Fryer, 2014). Accountability and autonomy opened doors for SLD to partake in innovative pedagogical methods of teaching and learning when given access to opportunity (Cowen & Creed, 2017).

For the purposes of clarifying effective charter schools as models for a spillover effect into traditional schools, KIPP and Promise Academy are pillars of value-added models. KIPP services over approximately 60,000 students within urban communities (Cheng et al., 2017). The adaptation of no-excuse models is used to curtail behavioral issues. Parents and students sign a pledge of order, excellence, and respect in the educational process. Traditional and charter schools combined will be able to offer all students an opportunity to increase ELA performance on standardized tests with conducive learning environments facilitated by highly qualified professionals who use various learning techniques to accomplish mastery goals.

Complementary theoretical frameworks consider holistic views of effectiveness in educating a child. Intrinsic motivation is defined as a sense of enjoyment related to successful outcomes (Guan, 2015). Conceptually, researchers that studied intrinsic motives, and extrinsic forces (i.e., motivation and effort) align value-added theories to raise achievement in reading, writing, and mathematics (Ames, 1992; Fagioli, 2014; Vygotsky, 1978). Technology, engineering, science, and the arts are some of the specialties offered by open enrollment schools capable of achieving rigorous goals. Lotteries foster hope in parents who want the exposure of
experiential learning experiences to increase impoverished disadvantaged students' academic, social, and emotional competencies; thereby, changing their quality of life (Chabrier et al., 2016; Peterson et al., 2017; Choi et al., 2017).

An exploratory analysis of inclusion teachers' sense of classroom management and academic effectiveness with SLD's achievement, provide educational leaders with areas of refinement to organizational infrastructure when developing viable plans for achievement, programming, policies/procedures, accessibility, resources, funding, and cost of federal compliance (Clark et al., 2015). Teachers' confidence levels authentically influence students' decision-making and investment in the learning process. Intentional teachers develop striving student's confidence levels to motivate and initiate critical and analytical thinking. Sharing information across districts between teachers knowledgeable of innovative technology can open doors for all students' extended exploration of curriculum content.

A synthesis of recent literature revealed parents' support school choice for its idea of innovativeness (Mead et al., 2015; Peterson et al., 2017; Pitre, 2014). However, issues with legislative compliance, accountability, and lack of resources continue to stagnate initiatives capable of increasing SLD literacy achievement in all learning environments. Chapter Three is composed of at least eight sections: (a) an overview, (b) design, (c) research question, (d) hypothesis, (e) participants and setting, (f) instrumentation, (g) procedures, (h) and data analysis. An exploratory design will develop the problem to provide a clear and concise investigation of new ideas relative to teacher’s confidence levels. The researcher will glean further insight into how well teachers can do from the research question against the dependent variable TSES scores and independent variables bachelor's, master's, or master's plus degrees.
CHAPTER THREE: METHODS

Overview

The purpose of this quantitative, causal-comparative study is to enable an analysis of means between Grade 8 inclusion teachers degree level and TSES levels as measured by Teacher Sense of Efficacy long form to determine if there is a significant statistical difference among the means of a larger population making the design rigorous, structurally valid, and reliable in comparing means of multiple groups (Warner, 2013). The benefit of positive and effective teacher efficacy is student motivation, perseverance, and resilience towards academic achievement (Colson et al., 2017). Chapter Three addresses the research design, research questions, participants, setting, instrumentation, procedures, and data analysis.

Design

The researcher used causal-comparative design for this study because it mirrors the research question to determine the means between multiple variables without breaching ethical obligations to participants in the implementation of this study. The design helped the researcher gain theoretical, historical, and social knowledge about the phenomenon. Quantitative approaches to data collection, analysis, and syntheses help to better understand the findings (Warner, 2013). The researcher explored patterns between means. It is the proper approach, because the researcher seeks to compare variances between variables in a model that explains an outcome variable. Overall, the researcher seeks to know variances within the group's means.

Building a model with multiple groups requires one-way ANOVA analysis of variances (Gall et al., 2007; Rovai et al., 2013; Warner, 2013). The corresponding null hypothesis is found in the problem statement and supported in the research to compare means among variables. A one-way ANOVA design with analysis of variances was selected because the researcher seeks to
test the statistically significant differences based on justifiable independent variables and a relevant outcome variable suggested from empirical, theoretical, and practical research (Gall et al., 2007; Rovai et al., 2013; Warner, 2013). For this study, the dependent variable is the TSES scores of Grade 8 inclusion teachers. The TSES long form is a questionnaire designed to help researchers comprehend issues that impede teachers' ability to effectively implement activities, increase skill level, and enhance acquired knowledge. The independent variable was teacher's degree level of completion, the design is most appropriate for the study because it statistically compares the means among the independent and the dependent variable. Degree level of completion was measured by bachelor's, master's, and master's plus. Teacher Sense of Efficacy Survey (TSES) helped to clarify practical difficulties impeding teachers' ability to increase students' achievement (Ames, 1992; Cottrell & Barrett, 2017; Vygotsky, 1978). The researcher did not influence the independent variables (Gall et al., 2007; Rovai et al., 2013).

**Research Question**

The following research question was designed to support the study:

RQ: Is there a statistically significant difference in teachers’ sense of efficacy scores (TSES) among eighth grade inclusion teachers with bachelor's degree, master’s degree (MA, MS, MEd), and master's plus degrees?

**Hypothesis**

The null hypothesis for this study was:

Ho: There is no statistically significant difference in teachers’ sense of efficacy scores among (TSES) eighth grade inclusion teachers with bachelor's degree, master’s degree (MA, MS, MEd), and master's plus degrees.
Participants and Setting

This section describes the population of teachers who participated in the study.

Participants taught in urban middle school Grade 8 inclusion classes where two teachers are responsible for the implementation of ELA assignments and activities aligned with the curriculum with SLDs. This section outlines sampling techniques, sample size, and concludes with a thorough description of the setting.

Population

For this study, participants were drawn from a convenience sample consisting of 59 middle school SPED and regular education inclusion teachers from 15 urban public schools located in southwestern Tennessee who taught ELA courses during the spring semester of the 2021-2022 school year. The urban school district is in a low to middle income community serving inside a city located in Tennessee. Secondary SPED and GEN Ed teachers were approximately 18-65 (e.g., 18-24; 25-35; 35-44; 44-55; over 65) years of age. Nineteen special education teachers (n = 19) and 40 (n = 40) regular education participants completed a demographic survey to determine each teacher’s level of degree completion. Degree completion is described as having a bachelor's, master's, or master's plus. Participants sampled exceeded the required minimum of 51 for a three-group, one-way ANOVA when assuming a large effect size with statistical power of 0.70 at the 0.05 alpha level. A sample of at least twice as many, and much of educational research, especially online, yields at least a 30% response rate, so initially targeting 100 participants was the goal. Also, n = 59 is based on Warner's (2013) formula of \( N > 59 + k \), where \( k = 3 \) of independent variables (Gall et al., 2007, p. 145; Warner's, 2013).
Participants

For the study, the number of participants sampled was 59 which exceeded the required minimum when assuming large effect size. According to Gall et al. (2007), 51 teacher participants is the required minimum for a one-way ANOVA with three groups when assuming a large effect size with statistical power of .7 at the .05 alpha level. The sample came from fifteen middle schools in the district. Within each school, teachers were selected from two inclusion ELA classes. The ELA inclusion classes taught reading, writing, grammar/mechanics, comprehension, listening, critical, and analytical thinking skill coursework.

Fifteen administrators were contacted to request consent to conduct the study. The 2021-2022 year's demographic data and TSES long form was combined (n = 59) and emailed to yield a total of at least (n = 59) teacher participants. The sample size consisted of 59 teachers who identified as 39.56% (8) Caucasian, 76.27% (45) as African American, 6.78% (4) as Hispanic, 3.39% (2) as Native American or American Indian, and 1.69% (1) as other within the eighth-grade classes. The sample consisted of 23.73% (14) males and 71.19% (42) female inclusion teachers combined. At least 5.17% (3) teachers were age 18-24, 20.69% (12) were age 25-35, 34.48% (20) were 35-44 of age, 37.93% (22) were 44-55 of age, and 1.72% (1) were over 65 years of age. Participants were predominantly African American, with English as the primary language. See Table 3 for the teacher population general demographics.
Table 3

2021-2022 Teacher Population General Demographics-Traditional School Teacher Participants

<table>
<thead>
<tr>
<th>Gender</th>
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<tbody>
<tr>
<td>Male</td>
<td>23.73%</td>
</tr>
<tr>
<td>Female</td>
<td>71.19%</td>
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<tr>
<td>Per not to say</td>
<td>5.08%</td>
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<tr>
<th>Median Age</th>
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<tbody>
<tr>
<td>18-24 years old</td>
<td>5.17%</td>
</tr>
<tr>
<td>25-34 years old</td>
<td>20.69%</td>
</tr>
<tr>
<td>35-44 years old</td>
<td>34.48%</td>
</tr>
<tr>
<td>44-55 years old</td>
<td>37.93%</td>
</tr>
<tr>
<td>Over 65</td>
<td>1.72%</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>African American</td>
<td>79%</td>
</tr>
<tr>
<td>White</td>
<td>7.5%</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>13.5%</td>
</tr>
<tr>
<td>Non-White</td>
<td>1.7%</td>
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</table>

<table>
<thead>
<tr>
<th>Teacher Certification Type</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Special Education</td>
<td>31.03%</td>
</tr>
<tr>
<td>Regular Education</td>
<td>68.97%</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Highest Degree Level Completed</th>
<th></th>
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<tbody>
<tr>
<td>Bachelor’s Degree (e.g., BA, BS)</td>
<td>25.42%</td>
</tr>
<tr>
<td>Master's Degree (e.g., MA, MS, MEd)</td>
<td>42.37%</td>
</tr>
<tr>
<td>Master's Plus</td>
<td>33.90%</td>
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<tr>
<th>Grade Level</th>
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<tr>
<td>8</td>
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</table>

Setting

The research focused primarily on SPED and general education inclusion classes to better understand circumstances that may impede a teachers' ability to create and implement school activities with difficult to teach students. The researcher excluded general education classes in the study because SWDs do not attend those classes. Also, there is only one teacher who teaches ELA in a regular education setting. Insight from regular and special education teachers combined will help to determine the needs of each teacher and how the participating school district and
building level principals can better assist with managing the stresses of motivating and educating difficult to teach students. Special education teachers rely on the support of co-teachers to increase SPED and students' internal motivation fostering accountability to effectively produce positive achievement outcomes (Conley & You, 2017). Special education teachers should be active participants in the educational process. The lack of teaming between co-teachers reduces self-efficacy that can negatively impact student achievement and job performance (Conley & You, 2017). For this study, the requirement for a co-taught class is for students to have an IEP or score basic or below basic on state standardized test which is considered Tier III and striving in need of special education services. The average public school SWD who receive special education services is 36.8% in the state of Tennessee (see Table 4 for general demographics).

**Table 4**  
*General Demographics: Urban County School District in Southwestern Tennessee*

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American</td>
<td>77%</td>
</tr>
<tr>
<td>White</td>
<td>7.5%</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>13.5%</td>
</tr>
<tr>
<td>Non-White</td>
<td>1.7%</td>
</tr>
</tbody>
</table>

| District's School-Age Students Receive Free or Reduced Lunch | 55.9% |

| Traditional and Charter Schools SWD Receiving Special Education Services Combined | 36.8% |

| Median Household Income | $49,563 |

**Instrumentation**

This study used a Survey Monkey survey and TSES long form (See Appendix A-B for instrument) to collect demographic and professional information. Permission to use the TSES
long form was granted by the participating school district (See Appendix C). Demographic and TSES information were combined. TSES measured teachers impact on student achievement, difficult students, and motivation (Tschannen-Moran et al. (2001). Teacher participants' demographics aligns with eighth grade SLD inclusion students' demographics. The information collected was used to determine is there a statistical difference in teachers' TSES among inclusion teachers with bachelor's degree, master's degree, and master plus.

**Teacher Sense of Efficacy (Long Form)**

The purpose of the TSES long form is to determine the difference in teachers' licensure type and influence on student achievement. TSES long form measures three subscales: efficacy for student engagement, efficacy for instructional strategies, and efficacy for classroom management. Like Tschannen-Moran et al. (2001), who researched the Rand measure and applied Guskey’s responsibility for student achievement, the form was used to compare the effects of external influences on naturally occurring phenomena. TSES was created by Tschannen-Moran, Woolfolk Hoy, and the Ohio State University (2001). The long form was also used in previous studies to look at the relationship between teacher and student engagement in high school students using TSES and CRTT combined (Atiles et al., 2012; Callaway, 2017; Colson et al., 2017). For the purposes of this study, TSES was used to establish validity and reliability of information. Reliability and validity of the TSES long form instrument highest score is 0.90; engagement 0.81; instruction 0.86; and management 0.86 with moderate to high reliability gauged by Cronbach Alpha scores (Rovai et al., 2013; Warner, 2013). TSES has "adequate construct validity, reliability, and factor analysis to support scoring of subscales and a total score" with a Cronbach’s alpha coefficient of internal consistency of 0.98 for the total scale (Atiles et al., 2012, p. 71; Rovai et al., 2013; Warner, 2013).
The short form measures 12 items for efficacy in student engagement with items 2, 3, 4, and 11; efficacy for instructional strategies with items 5, 9, 10, 12; and efficacy for classroom management with items 1, 6, 7, and 8. The 24-item long-form was used to measure efficacy for student engagement with items 1, 2, 4, 6, 9, 12, 14, 22; efficacy for instructional strategies with items 7, 10, 11, 17, 18, 20, 23, 24, and efficacy for classroom management with items 3, 5, 8, 13, 15, 16, 19, 21.

The responses were on a nine-point Likert scale to measure the following: Nothing = 1, Very Little = 2/3, Some Influence = 4/5, Quite A Lot = 6/7, and A Great Deal = 8/9. Subscales were computed and unweighted at 0.94 according to each factor. The 24 items were multiplied by one and then by nine to obtain a minimum range of 24, meaning teachers have very little influence on achievement and 216 at the highest level of influence on student achievement. A survey link was emailed to study participants. The TSES form and demographic data was combined.

**Demographic Information**

Five pieces of demographic information were collected: (a) gender, (b) age, (c) ethnicity, (d) certification type, (e) and highest degree/level of school completion. The independent variables (e.g., highest degree/level of school completion) measured the dependent variable TSES. The consent form was embedded in the survey and attached to the email. The survey took approximately five to 10 minutes to complete. Survey Monkey and Statistical package for the social science (SPSS) software was used to score the data.

**Procedures**

Phase I of the research was to attain written permission from the school district found in the appendices (see Appendix C for consent form) and Institutional Review Board [IRB] (see
Appendix D for application form). Once permission was granted, the researcher advanced with the research. A remote data collection plan was used given the restrictions of Coronavirus disease (COVID-19). Next, teachers were emailed to provide information about the research and allow participants to ask questions for clarity. Follow-up emails to initial contact were sent within three days. Consent forms were disseminated to teachers within a two-week period. If there was a low initial response rate, email as a friendly reminder was resent and a copy of the letter was attached to ensure participants received the information and could access it.

Participants' information was anonymous. All school data was coded with limited access. A strict protocol was used to maintain confidentiality in the collection and storage of data, as stated in phase II.

Phase II of the research consisted of SurveyMonkey demographics. The survey took an estimated two-minutes to complete. Survey Monkey is an online service that can sufficiently facilitate data collection. The user had the option to upgrade services to include a larger volume of responses. An advantage to SurveyMonkey’s Qualtrics is its capability to download directly into the SPSS statistical analysis software program. Each variable was labeled before downloading into SPSS to reduce the disadvantage of having to reference each question from the original profile. The survey was electronically disseminated via email to collect 2021-2022 demographic data responses from inclusion teacher participants. Five pieces of demographic information were collected: (a) gender, (b) age, (c) ethnicity, (d) certification type, (e) and highest degree/level of school completion (see Appendix A for demographic and personal information form). Demographic surveys are often used in numerous studies to collect widespread demographic data. SurveyMonkey’s hardware maintains a documented vulnerability management program, which includes periodic scans, identification, and remediation of security
vulnerabilities on computer network services to prevent breach of information (Bourgeois, et al. 2016, McIntyre & Society for Research on Educational Effectiveness [SREE], 2014; SurveyMonkey, 2019). For the purposes of this study, the survey was anonymous.

According to Schaefer and Dillman (1998), it is important to create user friendly surveys participants can readily understand, easily access, and follow according to level of difficulty. In addition, questions of inquiry will be formatted to alleviate participants' need to revisit the same topic sporadically throughout the survey (Loomis, 2018). To increase the level of participants, follow-up surveys were sent within a two-week timeframe (Converse et al., 2008; Dillman, 2007; Sala & Lynn, 2009).

Demographic information was downloaded into the SPSS statistical software program to sort and organize the data for interpretation. Each variable was labeled to manage analysis. The actual survey was sent to research participants through the Internet with an anticipation of a two-week turnaround. Otherwise, a follow-up friendly reminder was sent via email (Dillman, 2007; Sala & Lynn, 2009). The following steps were taken to ensure confidentiality: first, prior to collecting data, participants received an anonymous survey to complete online. The TSES and demographic were combined and stored on a password-locked computer. Lastly, data was stored on a password-locked computer. Information will be discarded after three years (Gall et al., 2007; Rovai et al; 2013; Tschannen-Moran et al., 2001; Warner, 2013). Results of the study will be disseminated to the participating school district upon request. There is no plan to report the results to other audiences outside of participating school districts and Liberty University. Educator's demographics matched the demographics of students, school type, and teacher certification type. The outcome variable was collected in such a way that the independent variables are valid and reliable in the model for the dependent variable.
Data Analysis

A one-way ANOVA was chosen for this study because the statistical analysis can determine if there is a significant difference between the means of two or more variables in multiple groups (Gall et al., 2007). An ANOVA was conducted for the one hypothesis (Warner, 2013). More specifically, an ANOVA analysis can explore the differences between the means such as degree level and TSES scores, the deviation between and among degree levels, and overall mean (Gall et al., 2007; Warner, 2013). The exploratory analysis was used to compare the mean of eighth grade inclusion teacher's TSES scores for each participant group with the TSES scores used as the independent variable. In a similar study, TSES scores was used to determine educators’ discourse and communication sustainability in education (Colson et al., 2017). Demographic data was collected to determine degree level. The researcher used the study data analysis to determine if there were any statistically significant differences between eighth inclusion teachers’ TSES scores and degree level (bachelors, masters, and master’s plus). The data was thoroughly inspected to ensure no inaccuracies existed. A box-and-whisker plot for the three groups was used to look for extreme outliers (Warner, 2013).

SPSS statistic software was used to conduct a Kolmogorov-Smirnov test of normality. An assumption made by one-way ANOVA is the observation reflects a smaller sample of a larger population with a normal distribution. An F test was conducted to determine normality of distribution (Gall et al., 2007; Warner, 2013). Also, the researcher reported the p-value with the Levene's test of equality of error variance to compare the three groups and check for level of significance (Gall et al., 2007). In addition, descriptive statistics were based on the standard deviation (SD) and overall mean of the dependent and independent variables. Alpha was conducted as $p > .05$ with a 95% confidence level to determine the maximum significant mean
differences if any that exist between the groups (Rovai et al., 2013, Warner, 2013). Since the ANOVA compared the three groups simultaneously in a single analysis, type one error was controlled (Warner, 2013). Results of Alpha level was calculated as $F (2, 56) = 1.13, p = .329$. Partial eta square equaled ($\eta^2_{\text{part}} = .039$). (Gall et al., 2007). An Eta-square analysis was conducted to determine the effect size. Overall results were used to determine maximum statistical differences between eighth grade inclusion teachers TSES scores and level of education. Chapter Four provides an overview of the findings and report on results.
CHAPTER FOUR: FINDINGS

Overview

The purpose of this study was to determine if there was a significant difference in teachers’ sense of efficacy scores (TSES) among eighth grade inclusion teachers according to degree level: bachelor's, master’s (MA, MS, MEd), and master's plus who taught in eighth grade inclusion classroom settings. The independent variable was degree level, and the dependent variable was TSES scores. A one-way Analysis of Variance (ANOVA) was used to test the hypothesis. This Findings Section includes the research question, null hypothesis, data screening, descriptive statistics, assumption testing, and results. A summary of results

Research Question

The researcher composed the following research question to guide the study:

RQ: Is there a statistically significant difference in teachers’ sense of efficacy scores (TSES) among eighth grade inclusion teachers with bachelor's degree, master’s degree (MA, MS, MEd), and master's plus degrees?

Null Hypothesis

The null hypothesis for this study was:

H₀: There is no statistically significant difference in teachers’ sense of efficacy scores among (TSES) eighth grade inclusion teachers with bachelor's degree, master’s degree (MA, MS, MEd), and master's plus degrees.

Data Screening

Data screening was conducted on each group’s dependent variable. The researcher sorted the data on each variable and scanned for inconsistencies. No data errors or inconsistencies were
identified. Box and whiskers plots were used to detect outliers on each dependent variable. No outliers were identified. See Figure 1 for box and whisker plots.

**Figure 1**

*Box and Whisker Plots*

---

**Descriptive Statistics**

Descriptive statistics were obtained on the dependent variable for each group. The sample consisted of 59 participants. Scores on the Teacher Sense of Efficacy long form can range from 1 to 9. A high score of 9 means that how much a teacher can do is a great deal whereas a low score one means that how much a teacher can do is nothing. Descriptive statistics can be found in Table 5.
Table 5

*Descriptive Statistics*

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>SE</th>
<th>95% Confidence Interval for Mean Lower Bound</th>
<th>95% Confidence Interval for Mean Upper Bound</th>
<th>Minimum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor's Degree</td>
<td>14</td>
<td>8.0119</td>
<td>.81575</td>
<td>.21802</td>
<td>7.5409</td>
<td>8.4829</td>
<td>6.42</td>
</tr>
<tr>
<td>Master's Degree</td>
<td>25</td>
<td>7.5567</td>
<td>.79375</td>
<td>.15875</td>
<td>7.2290</td>
<td>7.8843</td>
<td>6.00</td>
</tr>
<tr>
<td>Master's Plus</td>
<td>20</td>
<td>7.6833</td>
<td>1.09177</td>
<td>.24413</td>
<td>7.1724</td>
<td>8.1943</td>
<td>5.50</td>
</tr>
<tr>
<td>Total</td>
<td>59</td>
<td>7.7076</td>
<td>.91253</td>
<td>.11880</td>
<td>7.4698</td>
<td>7.9454</td>
<td>5.50</td>
</tr>
</tbody>
</table>

*Assumptions Testing*

**Assumption of Normality**

The ANOVA requires that the assumption of normality be met. Normality was examined using Kolmogorov-Smirnov. The assumption of normality was met. See Table 6 for Test of Normality.

**Table 6**

*T tests of Normality*

<table>
<thead>
<tr>
<th>Degree Level</th>
<th>Kolmogorov-Smirnov&lt;sup&gt;a&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistic</td>
</tr>
<tr>
<td>TSES Bachelor's Degree</td>
<td>.146</td>
</tr>
<tr>
<td>Master's Degree</td>
<td>.112</td>
</tr>
<tr>
<td>Master's Plus&lt;sup&gt;c&lt;/sup&gt;</td>
<td>.174</td>
</tr>
</tbody>
</table>

<sup>a</sup> This is a lower bound of the true significance.

<sup>c</sup> Lilliefors Correction
Assumption of Homogeneity of Variance

The ANOVA requires that the assumption of homogeneity of variance be met. The assumption of homogeneity of variance was examined using the Levene’s test where \( p = .31 \). The data showed a normal distribution showing the assumption of normality was met. See Table 7 for Levene's test of Equality of Error Variance.

Table 7

*Levene's Test of Equality of Error Variances*

<table>
<thead>
<tr>
<th>Levene Statistic</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Based on Mean</td>
<td>1.182</td>
<td>2</td>
<td>56</td>
</tr>
<tr>
<td>Based on Median</td>
<td>.867</td>
<td>2</td>
<td>56</td>
</tr>
<tr>
<td>Based on Median and with adjusted df</td>
<td>.867</td>
<td>2</td>
<td>49.665</td>
</tr>
<tr>
<td>Based on trimmed mean</td>
<td>.994</td>
<td>2</td>
<td>56</td>
</tr>
</tbody>
</table>

Tests the null hypothesis that the error of variance of the dependent variable is equal across groups.

a. Dependent variable: Degree Level

b. Design: Intercept + TSES

Results

A one-way ANOVA was run to determine if there was a significant difference in TSES scores among eighth grade inclusion teachers with bachelor's, master’s (MA, MS, MEd), and master's plus degrees. The independent variable was degree level, and the dependent variable was TSES confidence levels. The researcher failed to reject the null hypothesis at the 95% confidence level where \( F (2, 56) = 1.13, p = .329 \). Partial eta square equaled \( \eta^2_{\text{part}} = .039 \). The effect size was small. There was no statistical difference in teacher sense of efficacy towards
student achievement. See Table 8 for Test of Between-Subjects Effects. Because the researcher failed to reject the null hypothesis, no post hoc analysis was required or analyzed.

**Table 8**

*Test of Between-Subjects*

<table>
<thead>
<tr>
<th></th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1.878</td>
<td>2</td>
<td>.939</td>
<td>1.133</td>
<td>.329</td>
</tr>
<tr>
<td>Within Groups</td>
<td>46.419</td>
<td>56</td>
<td>.829</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>48.297</td>
<td>58</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER FIVE: CONCLUSIONS

Overview

This exploratory causal-comparative study was designed to determine if there was a statistically significant difference that existed in TSES scores among eighth grade inclusion teachers with bachelor's, master's (MA, MS, MEd), and master's plus degrees who taught in public school settings located in southwest Tennessee. Inclusion teacher participants from 15 public school settings were selected to participate in the study. Chapter Five provides a summary of discussion, results, implications, and study limitations, in addition to recommendations for future research.

Discussion

The purpose of this study was to determine if statistically significant differences existed in inclusion teacher’s degree level (bachelors, masters, and master's plus) and TSES scale scores. TSES scores and level of education completion demographics were used from Grade 8 ELA inclusion teachers in one participating school district were used to test the hypothesis and data on 59 eighth grade TSES scores. Bandura's (1971) research on SWD found that "if human behavior was to accelerate, more stringent requirements would need to be applied in evaluating the adequacy of explanatory system" (p. 2). The independent variables were TSES scores. The dependent variables were bachelors, masters, and master plus degrees.

The researcher rejected the null hypothesis, which asked if there is a statistically significant difference in teachers’ sense of efficacy scores among (TSES) Grade 8 inclusion teachers with bachelor's degree, master’s degree (MA, MS, MEd), and master's plus degrees. A one-way ANOVA was conducted, and the findings suggested there were no statistically significant difference in teachers’ sense of efficacy scores among (TSES) Grade 8 inclusion
teachers with bachelor's degree, master’s degree (MA, MS, MEd), and master's plus degrees: 
\( F(2, 56) = 1.33; \ p = .33; \ \text{partial } n^2 = .039. \) The alpha level was set to 0.05, anything less indicates 
a significant difference (Warner, 2013). The average mean scores of Grade 8 teachers with a 
bachelors (\( M= 8.0119 \)), were higher than teachers with a master's (\( M=7.5567 \)) and master's plus 
(\( M=7.6833 \)). A post analysis was not conducted because the three groups in the factor did not 
show a significant difference.

For this study, \( \alpha=0.05 \) with three analyses (\( k=3 \)) results showed there were no statistically 
significant in differences in Grade 8 inclusion teacher's degree level with \( p=.33 \). The researcher 
used the equation \( F (2, 56) = 1.13, p = .329. \) Results suggest degree level does not affect 
teacher's sense of efficacy. TSES based on mean was (\( M=1.182 \)). Results concluded degree 
completion level had no significant effect on self-efficacy among Grade 8 inclusion teachers.
The use of innovative technology may influence student motivation, collaborative efforts, and 
behavioral management among SLD students to increase student achievement throughout the 
school year and state standardized test.

VR and AR technology as an integrated influencer of intrinsic motivation can increase 
students' active participation and cognitive receptiveness towards abstract to concrete learning. 
Since the research findings did not show a statistically significant difference in teachers'
confidence levels, it is imperative to seek alternative pathways to foster buy-in to the learning 
process (Kun-Hung et al., 2022). In a technologically driven society, SWDs benefit from visual 
effects that allow them to live within the moment. Declining interest in education is a cause and 
effect of teacher motivation, design, and delivery of lessons (Cheng, 2017; Cohodes et al., 2018; 
Coward & Creed, 2017; Guan, 2015; Fagioli, 2014; Faragozlu, 2018; Finn et al., 2014; Moran & Woodall, 2019). Tailoring classroom environments to align with students' current interest
supports the challenges teachers are experiencing with difficult to teach students. Incorporating VR and AG technology can help to close the gap in ELA standardized test scores with teaching SWDs (Bauer et al., 2021; Faragozlu, 2018; Kun-Hung et al. 2022; McGovern et al., 2020).

Kun-Hung et al. (2022) studies featured multi-user interactions and communication networks to support K-12 education. The analysis found learners can make greater connections to curriculum standards through simulated experiences. Hands-on interactions allow students to participate in the learning process by exploring and investigating ideas interwoven in topics based on themes. Kun-Hung et al. (2022) studies indicate VR applications that include "learning domains, learning content, and design elements" (p. 171) foster higher achievement scores. VR and AG applications combined create immersive experiences to promote interest in content. Research suggests implementing simulated learning environments in education is a collective idea in need of further exploration to increase achievement (Bauer et al., 2021; McGovern et al., 2020).

Some research studies agree the implementation of AR and VR would have a positive effect on the field of education. However, affordability would need to be assessed on a district level to ensure all students are able to benefit from its advantages (Kun-Hung et al., 2022). Previous studies on SWDs learning indicate a need to evoke student interest with teacher confidence as a major factor of increasing students' performance (Ames, 1992; Bandura, 1986; Bandura et al., 1999; Vygotsky, 1978). The primary focus of this study is to determine the collective level of confidence of teachers to provide additional educational supports and practices capable of reforming education for all students in all learning environments (Bauer et al., 2021; Kun-Hung et al., 2022).
Findings from previous research suggest benefits of implementing VR into the learning environment also has enjoyable effects on learner’s perception of abstract ideas (Bauer et al., 2021; Kun-Hung et al., 2022). Widely used in gaming, healthcare, tourism, and marketing, VR can effectively enhance communication and collaboration skills (Bauer et al., 2021; McGovern et al., 2020). College and career ready goals prepare SWDS for a multi-tasking society and the demands of everyday life. Extensive studies exist on the context of learners need to use technology to present information in secondary school (Bauer et al., 2021; McGovern et al., 2020). Bauer et al., (2021) research on VR results emphasize the importance for the field of education to format resources provided in curriculum to align with current learning objectives.

A new approach to curriculum, lessons, and delivery can increase responsiveness with the use of VR hardware that increase participation in the learning process and foster motivation to collaborate with peers (Bauer et al., 2021; Faragozlu, 2018; Kun-Hung et al., 2022). Teachers’ ability to create seamless use of VR hardware such as Oculus Quest, Oculus Rift, or HTC Vive can impact interest while increasing understandability (Bauer et al., 2021). Since the accumulation of knowledge depends on transferability, studies show simulated context enhances comprehension of complex text. Exposure to a variety of modalities differentiates instruction and caters to various learning styles (Bauer et al., 2021).

Varying visual environments increase learning outcomes and achievement scores (Bauer et al., 2021). However, some technological advancements are offered in STEM programs but are not available to all students. The use of traditional strategies and techniques drafted in the curriculum and delivered by teachers are still necessary but in need of reformation to assist district leaders, building level principals, teachers, and students with meeting rigorous goals (Cheng, 2017; Cohodes et al., 2018; Coward & Creed, 2017; Guan, 2015; Faragozlu, 2018;
Fagioli, 2014; Finn et al., 2014; Moran & Woodall, 2019). Studies show learners comprehend at a higher rate with exposure from visual, auditory, kinesthetic, and logical reasoning perspectives while collaborating among peers (Ames, 1992; Bandura, 1986; Bandura et al., 1999; Bauer et al., 2021, Kun-Hung et al., 2022; Vygotsky, 1978, McGovern et al., 2020).

Minority subgroups' academic achievement in all learning environments depend on the diversification of innovative teaching methods to reduce behavioral issues that impede teachers' ability to appropriately deliver lessons (Ames, 1992; Bandura, 1986; Bandura et al., 1999; Bauer et al., 2021, Kun-Hung et al., 2022; Vygotsky, 1978, McGovern et al., 2020). Self-efficacy and collaboration among teachers and students increase confidence levels to achieve academically as a disciplinarian of study rather than based on degree level or cognitive ability (Guan, 2015; Faragozlu, 2018; Fagioli, 2014; Kun-Hung et al., 2022).

**Implications**

The study results add to a larger body of knowledge on inclusion teachers' confidence levels to create a depth-to-complexity learning environment that afford all students opportunities to achieve (Cheng, 2017; Cohodes et al., 2018; Coward & Creed, 2017; Guan, 2015; Faragozlu, 2018; Fagioli, 2014; Finn et al., 2014; Moran & Woodall, 2019). The result of the current study indicated there were no statistically significant differences in inclusion teachers' TSES scores and degree levels (e.g., bachelors, master's, and master's plus).

According to Lin and Yu-Ju (2015) investigative research, English teachers’ professional development should adequately focus on technological advancements in the use of VR and AR as value-added tools to enhance instructional practices (Faragozlu, 2018; Kun-Hung et al., 2022). In fact, integrated learning environments were observed as having a high impact on student engagement, behavioral management, and achievement. Lin and Yu-Ju (2015), comprehensive
approach provides an in-depth visualization of instruction to increase competency levels. According to Karagozlu's (2018) quantitative study of 147 seventh grade students, the use of AR and VR was found as a beneficial tool to engage difficult to teach students. Karagozlu (2018) studied the use of AR as an instructional tool to accelerate instructional methods and techniques suggested to significantly increase students' comprehension and problem-solving skills.

ELA achievement on state standardized tests relies on students' ability to reimagine (Solis et al., 2014; Swanson et al., 2015; Swanson et al., 2017; Thornton et al., 2015). For this reason, district leaders must take a different instructional approach to provide in the moment learning experiences (Fagioli, 2014; Faragozlu, 2018; Kalulu et al., 2017; Lin & Yu-Ju, 2015). As a result, the study can encourage district administrators, building-level principals, teachers, students, and stakeholders to invest in enhanced instructional practices with the use of immersive technology. An instructional shift can increase ELA achievement where students are able to manage the rigor of concepts, themes, ideas, tasks, and activities that require critical/analytical noticing’s and connections (Faragozlu, 2018; Moran & Woodall, 2019; O’Neill & Rhim, 2015; Parrillo, 2015; Pitre, 2014; Ritter et al., 2016; Sass et al., 2016; Setren, 2015; Solis et al., 2014; Swanson et al., 2017).

Limitations

Limitations to the study include the onset of a worldwide pandemic. The Coronavirus (COVID-19) pandemic prompted a district internal and external research moratorium. Also affected by the spread of the virus was the participating school district's inability to release 2018-19 TNReady test scores for eighth-grade students. Moreover, TSES scores of charter middle school teachers and students' standardized test scores could prove fundamental to federal, state, and district leaders’ reformation of teaching and learning practices. It is difficult to imply charter
schools have a positive trickle-down effect on students' overall achievement if no comparison between charter and traditional school SLD literacy achievement can be used to determine an effective value-added approach toward instructional practices capable of increasing achievement for minority subgroups in all learning environments. The results of the study were also possibly affected by the sample size, the lack of an experimental design, and the non-random nature of the study’s sample. Assessing additional variables in a model that considered the role of certification type on teachers sense of self-efficacy would possibly alter the results.

**Recommendations for Future Research**

Based on the results from the study, the researcher suggests future research to increase students' academic, social, and emotional performance on state standardized test. The introduction introducing exploratory AR technology will increase comprehensive critical thinking, problem-solving, and collaboration by combining real-world events with abstract objects to foster interest (Faragozlu, 2018; Lin & Yu-Ju, 2015; Moran & Woodall, 2019):

- Replicate the current study using a multiple-regression analysis of charter/traditional schools' state standardized test scores on SLD literacy achievement, teacher's degree level, and licensure type to determine a statistical difference.
- Conduct a study to determine if charter school SLD minority subgroups outperform traditional school SLD on ELA state standardized test.
- Further investigate literacy explanatory practices and inclusion teachers’ confidence levels.
- Expand research on VR and AR technological advancements and their potential effect on explanatory instructional practices to increase literacy achievement.
• Expand district leaders’ financial resources to support advanced explanatory instructional practices by increasing educators' self-efficacy, classroom management, and pedagogy.
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studies of adolescents with reading disabilities and poor reading comprehension.


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http://dx.doi:10.1086/681920


http://dx.doi:10.1080/10573569.2014.910718


http://dx.doi:10.1080/10573569.2015.1072068


http://dx.doi.org/10.1016/0361-476X(86)90027-5


http://dx.doi:10.2307/educfinapoli.9.1.59
1. I have read the consent form attached to the participant’s email. I affirm I am 18 years or older and understand that by answering the following questions, responses will be included in the data set.
- Agree
- Disagree

2. What is your gender?
- Male
- Female
- Prefer not to say
- Other (please specify)

3. What is your age?
- 18-24 years old
- 25-34 years old
- 35-44 years old
- 45-55 years old
- Over 55
4. What is your ethnicity?

- White
- Hispanic or Latino
- Black or African American
  - Native American or American Indian
  - Asian/Pacific Islander
- Other (please specify)

5. What is your certification type?

- Special education
- Regular education

6. What is your highest degree/level of school?

- Bachelor's degree (e.g., BA)
- Master's degree (e.g., MA, MEd)
- Master's Plus
### APPENDIX B: Teachers' Sense of Efficacy Scale (log form)

**Teachers' Sense of Efficacy Scale**

**Teacher Beliefs**

| 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 falling? | (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 from 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 C: ADULT CONSENT FORM TO PARTICIPATE IN A RESEARCH STUDY

Researcher’s Name(s): Jonetta L. Cooper

Project Number: I

Project Title: EXPLORATORY ANALYSIS OF VARIANCE: EXAMINING THE ROLE OF TEACHER EDUCATION LEVEL ON EDUCATOR’S SENSE OF SELF-EFFICACY

INTRODUCTION

This consent may contain words that you do not understand. Please ask the investigator or the study staff to explain any words or information that you do not clearly understand.

You are being asked to participate in a research study. An exploratory analysis of variances study can determine (Gall et al., 2007) if there is a statistical difference in Teacher’s Sense of Efficacy (TSES) scores among highest level of degree completion (e.g., bachelors, master's, master's plus) (Gall et al., 2007) on SLD academic achievement. When you are invited to participate in research, you have the right to be informed about the study procedures so that you can decide whether you want to consent to participation. This form may contain words that you do not know. Please ask the researcher to explain any words or information that you do not understand.

You have the right to know what you will be asked to do so that you can decide whether to be in the study. Your participation is voluntary. You do not have to be in the study if you do not want to. You may refuse to be in the study, and nothing will happen. If you do not want to continue to be in the study, you may stop at any time without penalty or loss of benefits to which you are otherwise entitled.
You may withdraw from the research and procedures at any time.

WHY IS THIS STUDY BEING DONE?

The purpose of this of a one-way ANOVA with exploratory analysis of variances study to determine (Gall et al., 2007) if there is a statistical difference in Teacher's Sense of Efficacy (TSES) scores among highest level of degree completion (e.g., bachelors, master's, master's plus) (Gall et al., 2007). Teacher level of confidence in raising student achievement can influence motivation, engagement, and self-regulation (AMES, 1992; Bandura, 1986; Vygotsky, 1978).

HOW MANY PEOPLE WILL BE IN THE STUDY?

About 59 people will take part in this study at this institution.

WHAT AM I BEING ASKED TO DO?

You are being asked for permission to collect, analyze, synthesize, and record data from teachers’ demographics using Survey Monkey. A Teacher Sense of Efficacy will be used to determine (Gall et al., 2007) if there is a statistical difference in Teacher's Sense of Efficacy (TSES) scores among highest level of degree completion (e.g., bachelors, master's, master's plus). Teacher level of confidence in raising student achievement can influence motivation, engagement, and self-regulation (AMES, 1992; Bandura, 1986; Vygotsky, 1978).

HOW LONG WILL I BE IN THE STUDY?

This study will take approximately six months to a year to complete. You can stop participating at any time without penalty.

WHAT ARE THE BENEFITS OF BEING IN THE STUDY?

The study provides an extensive body of knowledge (Erickson et al., 2013; Sahin et al., 2017; Ackerman & Egalite, 2017) to help policy makers, school systems, district leaders, and principals determine if there is a statistical difference in TSES scores among highest degree
completion (e.g., bachelors, masters, master's plus) in raising English language arts achievement for students with Specific Learning Disabilities (SLD) to quantitatively address variability in teacher’s confidence levels.

Grounded in the Social Science, interactions are logically observable and measurable. Educational researchers aim to explore and determine inclusion teacher’s confidence levels in motivating, engaging, and creating positive climate and culture (Gall et al., 2007). Teachers’ confidence levels are used to make further decisions in pedagogy, curriculum/instruction, a (1978) Social Development theory based on intrinsic motivation and Ames (1992) Achievement Goal theory an added-value model to inform school systems in how to better facilitate the needs and services of SLD in ELA.

**WHAT ARE THE RISKS OF BEING IN THE STUDY?**

Student test scores will be used. No child participants will directly be involved in this study. Also, this is a nonexperimental study; therefore, preexisting archived documents will be used without any manipulation of participants. With permission, teacher's demographics will be collected voluntarily. There are no foreseeable risks or discomforts to participants.

**WHAT ARE THE COSTS OF BEING IN THE STUDY?**

There is no cost to you.

**WHAT OTHER OPTIONS ARE THERE?**

You have the option of not participating in this study and will not be penalized for your decision.

**CONFIDENTIALITY**

Information produced by this study will be stored in the investigator’s file and identified by a code number only. The code key connecting your name to specific information about you will be kept in a separate, secure location. Information contained in participants records may not be
given to anyone unaffiliated with the study in a form that could identify the school district without your written consent, except as required by law.

**WILL I BE COMPENSATED FOR PARTICIPATING IN THE STUDY?**

You will receive no payment for taking part in this study.

**WHAT IF I AM INJURED?**

No injury to human participants is foreseeable because the study is nonexperimental, without treatment, or manipulation.

**WHAT ARE MY RIGHTS AS A PARTICIPANT?**

Participation in this study is voluntary. You do not have to participate in this study.

You will also be informed of any new information discovered during this study that might influence your health, welfare, or willingness to be in this study.

The IRB and committee, an independent group of experts, will be reviewing the data from this research throughout the study. We will tell you about the new information from this or other studies that may affect your health, welfare, or willingness to continue participation in this study.

**WHO DO I CONTACT IF I HAVE QUESTIONS, CONCERNS, OR COMPLAINTS?**

Please contact [Jonetta Cooper] if you have questions about the research. Additionally, you may ask questions, voice concerns or complaints to the research team.

**WHOM DO I CALL IF I HAVE QUESTIONS OR PROBLEMS?**

If you have any questions regarding your rights as a participant in this research and/or concerns about the study, or if you feel under any pressure to enroll or to continue to participate in this study, you may contact the Liberty University Institutional Review Board (which is a group of people who review the research studies to protect participants’ rights) at irb@liberty.edu.
You may ask more questions about the study at any time. For questions about the study or a research-related injury, contact Jonetta cooper at _______.

A copy of this Informed Consent form will be given to you before you participate in the research.

SIGNATURES

I have read this consent form and my questions have been answered. My signature below means that I do want to be in the study. I know that I can remove myself from the study at any time without any problems.

_________________________________________  ____________
Subject  Date

_________________________________________  ____________
Legal Guardian/Advocate/Witness (if required) *  Date

_________________________________________  ____
Additional Signature (if required) (identify relationship to subject) *  Date

*The presence and signature of an impartial witness is required during the entire informed consent discussion if the subject or subject’s legally authorized representative is unable to read.

**The "Additional Signature" line may be used for the second parent’s signature, if required.

This line may also be used for any other signature which is required as per federal, state, local, sponsor and/or any other entity requirements.
“If required” means that the signature line is signed only if it is required as per federal, state, local, sponsor and/or any other entity requirements.
APPENDIX D: APPLICATION FOR THE USE OF HUMAN RESEARCH PARTICIPANTS

IRB APPLICATION #: (To be assigned by the IRB)

I. APPLICATION INSTRUCTIONS

1. Complete each section of this form, using the gray form fields (use the tab key).
2. If you have questions, hover over the blue (?), or refer to the IRB Application Instructions for additional clarification.
4. Email the completed application, with the following supporting documents (as separate word documents) to irb@liberty.edu:
   a. Consent Forms, Permission Letters, Recruitment Materials
   b. Surveys, Questionnaires, Interview Questions, Focus Group Questions
5. If you plan on using a specific Liberty University department or population for your study, you will need to obtain permission from the appropriate department chair/dean. Submit documentation of permission (email or letter) to the IRB along with this application and check the indicated box below verifying that you have done so.
6. Submit one signed copy of the signature page (available on the IRB website) to any of the following:
   a. Email: As a scanned document to irb@liberty.edu
   b. Fax: 434-522-0506
c. Mail: IRB 1971 University Blvd. Lynchburg, VA 24515

d. In Person: Green Hall, Suite 1887

7. Once received, applications are processed on a first-come, first-served basis.

8. Preliminary review may take up to 3 weeks.

9. Most applications will require 3 sets of revisions.

10. The entire process may take between 1 and 2 months.

11. We cannot accept applications in formats other than Microsoft Word. Please do not send us One Drive files, Pdfs, Google Docs, or Html applications.

Note: Applications and supporting documents with the following problems will be returned immediately for revisions:

1. Grammar, spelling, or punctuation errors

2. Lack of professionalism

3. Lack of consistency or clarity

4. Incomplete applications

**Failure to minimize these errors will cause delays in your processing time**
II. BASIC PROTOCOL INFORMATION

1. STUDY/THESIS/DISSERTATION TITLE (?

Title: EXPLORATORY ANALYSIS OF VARIANCES: EXAMINING THE ROLE OF TEACHER EDUCATION LEVEL ON EDUCATOR'S SENSE OF SELF-EFFICACY

2. PRINCIPAL INVESTIGATOR & PROTOCOL INFORMATION (?

Principal Investigator (person conducting the research): Jonetta L. Cooper

Professional Title (student, professor, etc.): student

School/Department (School of Education, LUCOM, etc.): Liberty University School of Education

Personal Mailing Address: [Redacted]

Phone: [Redacted]  LU Email: [Redacted]

Check all that apply:

- Faculty
- Online Graduate Student
- Staff
- Residential Undergraduate Student
- Residential Graduate Student
- Online Undergraduate Student

This research is for:

- Class Project
- Master’s Thesis
- Scholarly Project (DNP)
- Doctoral Dissertation
- Faculty Research
- Other:

If applicable, indicate whether you have defended and passed your dissertation proposal:
No (Provide your defense date):

Yes (Proceed to Associated Personnel Information)

3. ASSOCIATED PERSONNEL INFORMATION (?)

<table>
<thead>
<tr>
<th>Co-Researcher(s):</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>School/Department:</td>
<td></td>
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<tr>
<td>Phone:</td>
<td>LU/Other Email:</td>
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</table>

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<thead>
<tr>
<th>Faculty Advisor/Chair/Mentor(s):</th>
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<tbody>
<tr>
<td>School/Department:</td>
<td></td>
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<tr>
<td>Phone:</td>
<td>LU/Other Email:</td>
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</table>

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<tr>
<th>Non-Key Personnel (Reader, Assistant, etc.):</th>
<th></th>
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<tbody>
<tr>
<td>School/Department:</td>
<td></td>
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<tr>
<td>Phone:</td>
<td>LU/Other Email:</td>
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</table>

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<tr>
<th>Consultant(s) (required for Ed.D Candidates):</th>
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</thead>
<tbody>
<tr>
<td>School/Department:</td>
<td></td>
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<tr>
<td>Phone:</td>
<td>LU/Other Email:</td>
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</tbody>
</table>

4. USE OF LIBERTY UNIVERSITY PARTICIPANTS (?)

Do you intend to use LU students, staff, or faculty as participants OR LU students, staff, or faculty data in your study?

No (Proceed to Funding Source)

Yes (Complete the section below)

<table>
<thead>
<tr>
<th># of Participants/Data Sets:</th>
<th>Department:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class(es)/Year(s):</td>
<td>Department Chair:</td>
</tr>
<tr>
<td>-------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td></td>
<td>I obtained permission from the Department Chair and attached proof to this application.</td>
</tr>
</tbody>
</table>

*Note: You must submit the original Chair signature or emailed documentation to the IRB for verification*
5. FUNDING SOURCE

Is your research funded?

No *(Proceed to Study Dates)*

Yes *(Complete the section below)*

Grant Name/Funding Source:

Funding Period (Month & Year):

Grant Number:

6. STUDY DATES

When will you perform your study? *(Approximate dates for collection/analysis)*:

Start: Finish:

7. COMPLETION OF REQUIRED CITI RESEARCH ETHICS TRAINING

List Course Name(s) *(School of Education, Psychology/Counseling, etc.)*:

Date(s) of Completion:

III. OTHER STUDY MATERIALS AND CONSIDERATIONS

8. STUDY MATERIALS LIST

Please indicate whether your proposed study will include any of the following:

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recording/photography of participants <em>(voice, video, or images)</em>?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participant compensation <em>(gift cards, meals, extra credit, etc.)</em>?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advertising for participants <em>(flyers, TV/Radio advertisements)</em>?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
More than minimal psychological stress?  Yes  No

Confidential material (questionnaires, surveys, interviews, test scores, etc.)?  Yes  No

extra costs to the participants (tests, hospitalization, etc.)?  Yes  No

The inclusion of pregnant women (for medical studies)?  Yes  No

**More than minimal risk?**  Yes  No

Alcohol consumption?  Yes  No

Waiver of the informed consent document?  Yes  No

Protected Health Information (from health practitioners/institutions)?  Yes  No

VO₂ Max Exercise?  Yes  No

Please indicate whether your proposed study will include the use of blood:

**Use of blood?**  Yes  No

Total amount of blood:

Blood draws over time period (days):

**Please indicate whether your proposed study will include any of the following materials:**

The use of rDNA or biohazardous material?  Yes  No

The use of human tissue or cell lines?  Yes  No

Fluids that could mask the presence of blood (including urine/feces)?  Yes  No

Use of radiation or radioisotopes?  Yes  No

*Minimal risk is defined as “the probability and magnitude of harm or discomfort anticipated in the research are not greater in and of themselves than those ordinarily encountered in everyday life or during the performance of routine physical or physiological examinations or tests. [45 CFR 46.102(i)]. If you are unsure if your study qualifies as minimal risk, contact the IR*
9. INVESTIGATIONAL METHODS

Please indicate whether your proposed study will include any of the following:

The use of an Investigational New Drug (IND) or an Approved Drug for an Unapproved Use?

- No
- Yes (Provide the drug name, IND number, and company):

The use of an Investigational Medical Device or an Approved Medical Device for an Unapproved Use?

- No
- Yes (Provide the device name, IDE number, and company):

IV. PURPOSE

10. PURPOSE OF RESEARCH

Write an original, brief, non-technical description of the purpose of your research.

Include in your description your research hypothesis/question, a narrative that explains the major constructs of your study, and how the data will advance your research hypothesis or question. This section should be easy to read for someone not familiar with your academic discipline:

V. PARTICIPANT INCLUSION/EXCLUSION CRITERIA

11. STUDY POPULATION

Provide the inclusion criteria for the participant population (gender, age range, ethnic background, health status, occupation, employer, etc.):
<table>
<thead>
<tr>
<th>Provide a rationale for selecting the above population:</th>
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<tbody>
<tr>
<td>Are you related to any of your participants?</td>
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<tr>
<td>No</td>
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<tr>
<td>Yes (Explain):</td>
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<tr>
<td>If applicable, indicate who will be excluded from your study population (e.g., persons under 18 years of age):</td>
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<tr>
<td>If applicable, provide rationale for involving any special populations (e.g., children, ethnic groups, mentally disabled, low socio-economic status, prisoners):</td>
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</table>
Provide the maximum number of participants you plan to enroll for each participant population and justify the sample size (You will not be approved to enroll a number greater than the number listed. If at a later time it becomes apparent that you need to increase your sample size, submit a Change in Protocol Form and wait for approval to proceed):

**ANSWER THE FOLLOWING QUESTION ONLY IF YOU ARE CONDUCTING A PROTOCOL WITH NIH, FEDERAL, OR STATE FUNDING:**

Researchers sometimes believe their particular project is not appropriate for certain types of participants. These may include, for example, women, minorities, and children. If you believe your project should not include one or more of these groups, please provide your justification for their exclusion. Your justification will be reviewed according to the applicable NIH, federal, or state guidelines:

### 12. TYPES OF PARTICIPANTS

**Who will be the focus of your study? (Check all that apply)**

<table>
<thead>
<tr>
<th>Normal Participants (Age 18-65)</th>
<th>Pregnant Women</th>
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<tbody>
<tr>
<td>Minors (Under Age 18)</td>
<td>Fetuses</td>
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<tr>
<td>Over Age 65</td>
<td>Cognitively Disabled</td>
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<tr>
<td>University Students</td>
<td>Physically Disabled</td>
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<tr>
<td>Active-Duty Military Personnel</td>
<td>Participants Incapable of Giving Consent</td>
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<tr>
<td>Discharged/Retired Military Personnel</td>
<td>Prisoners or Institutional Individuals</td>
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<tr>
<td>Inpatients</td>
<td>Specific Ethnic/Racial Group(s)</td>
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<tr>
<td>Outpatients</td>
<td>Other potentially elevated risk</td>
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</table>
VI. RECRUITMENT OF PARTICIPANTS

13. CONTACTING PARTICIPANTS (?)

Describe in detail how you will contact participants regarding this study:

*Note: Please submit all letters, emails, flyers, advertisements, or social media posts you plan to use to recruit participants for your study. If you will contact participants verbally, please provide a script that outlines what you plan to say to potential participants. Submit these items as separate Word documents to irb@liberty.edu.*

14. LOCATION OF RECRUITMENT (?)

Describe the location, setting, and timing of recruitment:
15. SCREENING PROCEDURES

Describe any screening procedures you will use when recruiting your participants (i.e., screening survey, database query, etc.):

16. RELATIONSHIPS

Does the researcher have a position of grading or professional authority over the participants (e.g., is the researcher the participants’ teacher or principal)?

No (Proceed to Procedures)

Yes (Explain what safeguards are in place to reduce the likelihood of compromising the integrity of the research, e.g., addressing the conflicts in the consent process and/or emphasizing the pre-existing relationship will not be impacted by participation in the research.):

VII. RESEARCH PROCEDURES

17. PROCEDURES

Write an original, non-technical, step by step, description of what your participants will be asked to do during your study and data collection process. If you have multiple participant groups, (ex: parents, teachers, and students) please specify which group you are asking to complete which task(s). You do not need to list signing/reading consent as a step.

<p>| Step/Task/Procedure | Time | Participant Group(s) |</p>
<table>
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<tr>
<th></th>
<th>(Appro x.)</th>
<th>(All, Group A, Group B, etc.)</th>
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<td>8.</td>
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Note: Please submit all instruments, surveys, interview questions or outlines, observation checklists, etc. that you plan to use for your study. Submit these items as separate Word documents to irb@liberty.edu.

### 18. STUDY LOCATION (2)

Please describe the location(s) in which the study will be conducted. Be specific

*(include city, state, school/district, clinic, etc.):*

### VIII. DATA ANALYSIS

#### 19. NUMBER OF PARTICIPANTS/DATA SETS (2)

Estimate the number of participants to be enrolled or data sets to be collected:
20. ANALYSIS METHODS (?)

Describe how the data will be analyzed and what will be done with the data and the resulting analysis, including any plans for future publication or presentation:

### IX. PARENTAL/GUARDIAN CONSENT

21. PARENTAL/GUARDIAN CONSENT REQUIREMENTS (?)

<table>
<thead>
<tr>
<th>Does your study require parental/guardian consent? (If your participants are under 18, parental/guardian consent is required in most cases.)</th>
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<tbody>
<tr>
<td>No (Proceed to Child Assent)</td>
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<tr>
<td>Yes (Answer the following question)</td>
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<tr>
<th>Does your study entail greater than minimal risk without the potential for benefits to the participant?</th>
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<tbody>
<tr>
<td>No</td>
</tr>
<tr>
<td>Yes (Consent of both parents is required)</td>
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</table>

### X. ASSENT FROM CHILDREN

22. CHILD ASSENT (?)

<table>
<thead>
<tr>
<th>Is assent required for your study? (Assent is required unless the child is not capable due to age, psychological state, or sedation OR the research holds out the prospect of a direct benefit that is only available within the context of the research.)</th>
</tr>
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<tbody>
<tr>
<td>No (Proceed to Consent Procedures)</td>
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<td>Yes</td>
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</table>

Note: If the parental consent process (full or part) is waived (See XIII below) assent may be also. See the IRB’s
### XI. PROCESS OF OBTAINING INFORMED CONSENT

#### 23. CONSENT PROCEDURES

Describe in detail *how and when* you will provide consent information (*If applicable, include how you will obtain consent from participants and/or parents/guardians and/or child assent): 

### XII. USE OF DECEPTION

#### 24. DECEPTION

- **Are there any aspects of the study kept secret from the participants** (*e.g., the full purpose of the study*)?
  - [ ] No
  - [ ] Yes *(describe the deception involved and the debriefing procedures)*:

- **Is deception used in the study procedures**?
  - [ ] No
  - [ ] Yes *(describe the deception involved and the debriefing procedures)*:

*Note: Submit a post-experiment debriefing statement and consent form offering participants the option of having their data destroyed. A debriefing template is available on our [website](#).*
XIII. WAIVER OR MODIFICATION FOR REQUIRED ELEMENTS IN THE
INFORMED CONSENT PROCESS

25. WAIVER OF INFORMED CONSENT ELEMENTS (3)

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<tr>
<td>A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Does the research pose no more than minimal risk to participants (i.e., no more risk than that of everyday activities)?

- No, the study is greater than minimal risk.
- Yes, the study is minimal risk.

Will the waiver have no adverse effects on participant rights and welfare?

- No, the waiver will have adverse effects on participant rights and welfare.
- Yes, the waiver will not adversely affect participant rights and welfare.

Would the research be impracticable without the waiver?

- No, there are other ways of performing the research without the waiver.
- Yes, not having a waiver would make the study unrealistic. (Explain):

Will participant debriefing occur (i.e., will the true purpose and/or deceptive procedures used in the study be reported to participants at a later date)?

- No, participants will not be debriefed.
- Yes, participants will be debriefed.

Note: A waiver or modification of some or all of the required elements of informed consent is sometimes used in research involving deception, archival data, or minimal risk procedures.

XIV. WAIVER OF SIGNED INFORMED CONSENT DOCUMENT

[ ]
[ ]
[ ]
### 26. WAIVER OF SIGNED CONSENT *(?) NA*

<table>
<thead>
<tr>
<th>Question</th>
<th>Option 1</th>
<th>Option 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Would a signed consent form be the only record linking the participant to the research?</td>
<td><strong>No</strong>, there are other records/study questions linking the participants to the study.</td>
<td><strong>Yes</strong>, only the signed form would link the participant to the study.</td>
</tr>
<tr>
<td>Does a breach of confidentiality constitute the principal risk to participants?</td>
<td><strong>No</strong>, there are other risks involved greater than a breach of confidentiality.</td>
<td><strong>Yes</strong>, the main risk is a breach of confidentiality.</td>
</tr>
<tr>
<td>Does the research pose no more than minimal risk to participants <em>(i.e., no more risk than that of everyday activities)</em>?</td>
<td><strong>No</strong>, the study is greater than minimal risk.</td>
<td><strong>Yes</strong>, the study is minimal risk.</td>
</tr>
<tr>
<td>Does the research include any activities that would require signed consent in a non-research context <em>(e.g., liability waivers)</em>?</td>
<td><strong>No</strong>, there are not any study related activities that would normally require signed consent</td>
<td><strong>Yes</strong>, there are study related activities that would normally require signed consent</td>
</tr>
<tr>
<td>Will you provide the participants with a written statement about the research <em>(i.e., an information sheet that contains all of the elements of an informed consent form but without the signature lines)</em>?</td>
<td><strong>No</strong>, participants will not receive written information about the research.</td>
<td><strong>Yes</strong>, participants will receive written information about the research.</td>
</tr>
</tbody>
</table>

**Note:** A waiver of signed consent is sometimes used in anonymous surveys or research involving secondary data. This does not eliminate the need for a consent document, but it eliminates the need to obtain participant signatures.
### XV. CHECKLIST OF INFORMED CONSENT/ASSENT

#### 27. STATEMENT (?)

Submit a copy of all informed consent/assent documents as separate Word documents with your application. [Informed consent/assent templates](#) are available on our website.

Additional information regarding consent is also available on our website.

### XVI. PARTICIPANT PRIVACY AND CONFIDENTIALITY

#### 28. PRIVACY (?)

Describe what steps you will take to protect the privacy of your participants (e.g., If you plan to interview participants, will you conduct your interviews in a setting where others cannot easily overhear?):

*Note: Privacy refers to persons and their interest in controlling access to their information.*

#### 29. CONFIDENTIALITY (?)

**How will you keep your data secure** (i.e., password-locked computer, locked desk, locked filing cabinet, etc.)?:

**Who will have access to the data** (i.e., the researcher and faculty advisor, only the researcher, etc.)?:

**Will you destroy the data once the three-year retention period required by federal regulations expires?**

- [ ] No
- [ ] Yes (Explain how the data will be destroyed):

*Note: All research-related data must be stored for a minimum of three years after the end date of the study, as*
required by federal regulations.

### 30. ARCHIVAL DATA

<table>
<thead>
<tr>
<th>Is all or part of the data archival (i.e., previously collected for another purpose)?</th>
</tr>
</thead>
<tbody>
<tr>
<td>No (Proceed to Non-Archival Data)</td>
</tr>
<tr>
<td>Yes (Answer the questions below)</td>
</tr>
</tbody>
</table>

**Is the archival data publicly accessible?**

<table>
<thead>
<tr>
<th>No (Explain how you will obtain access to this data):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes (Indicate where the data is accessible from, i.e., a website, etc.):</td>
</tr>
</tbody>
</table>

**Will you receive the data stripped of identifying information** (e.g., names, addresses, phone numbers, email addresses, social security numbers, medical records, birth dates, etc.)?

<table>
<thead>
<tr>
<th>No (Describe what data will remain identifiable and why this information will not be removed):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes (Describe who will link and/or strip the data—this person should have regular access to the data and should be a neutral party not involved in the study):</td>
</tr>
</tbody>
</table>
Can the names or identities of the participants be deduced from the data set?  

No (Place your initials in the box: I will not attempt to deduce the identity of the participants in this study):  

Yes (Describe):  

Please provide the list of data fields you intend to use for your analysis and/or provide the original instruments used in the study:  

Note: If the archival data is not publicly available, submit proof of permission to access the data (i.e., school district letter or email). If you will receive data stripped of identifiers, this should be stated in the proof of permission.  

### 31. NON-ARCHIVAL DATA (?)  

If you are using non-archival data, will the data be anonymous (i.e., data does not contain identifying information and cannot be linked to identifying information by use of pseudonyms, codes, or other means—for studies involving audio/video recording or photography, select “No”)?  

N/A: I will not use non-archival data (data was previously collected, skip to Media)  

No (Complete the “No” section below)  

Yes (Complete the “Yes” section below)  

**COMPLETE THIS SECTION IF YOU ANSWERED “NO”**  

Can participant names or identities be deduced from the data?  

No  

Yes (Describe):  

Will a person be able to identify a subject based on other information in the data (i.e., title, position, sex, etc.)?
No

Yes (Describe):

Describe the process you will use to collect the data and to ensure the confidentiality of the participants (i.e., you may know who participated, but participant identities will not be disclosed or pseudonyms will be used):

Note: If you plan to maintain a list or codebook linking pseudonyms or codes to participant identities, include this information and state that the list or codebook will be stored securely in a location that is separate from the data. Include this location along with who will have access to the data in your description.

**COMPLETE THIS SECTION IF YOU ANSWERED “YES”**

Describe the process you will use to collect the data to ensure that it is anonymous:

Place your initials in the box: I will not attempt to deduce the identity of the participants in this study:

Note: If you plan to use participant data (i.e., photos, recordings, videos, drawings) for presentations beyond data analysis for the research study (e.g., classroom presentations, library archive, or conference presentations) you will need to provide a materials release form to the participant.
32. MEDIA USE (?)

<table>
<thead>
<tr>
<th>Will your participants be audio recorded?</th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Will your participants be video recorded?</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Will your participants be photographed?</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

If you answered “YES” to any of the above questions, include information regarding how participant data will be withdrawn if he or she chooses to leave the study*:

Will your participants be audio recorded, video recorded, or photographed without their knowledge? **

☐ No

☐ Yes (Describe the deception and debriefing procedures):

*Note on Withdrawal: Add the heading “How to Withdraw from the Study” on the consent document and include a description of the procedures a participant must perform to be withdrawn.

**Note on Deception: Attach a post-experiment debriefing statement and a post-deception consent form, offering the participants the option of having their recording/photograph destroyed and removed from the study.

XVII. PARTICIPANT COMPENSATION

33. COMPENSATION (?)

Will participants be compensated (e.g., gift cards, raffle entry, reimbursement)?

☐ No (Proceed to Risks)

☐ Yes (Describe):

Will compensation be pro-rated if the participant does not complete all aspects of the study?
Note: Research compensation exceeding $600 per participant within a one-year period is considered income and will need to be filed on the participant’s income tax returns. If your study is grant funded, Liberty University’s Business Office policies might affect how you compensate participants. Contact the IRB for information on who to contact for guidance on this matter.

XVIII. PARTICIPANT RISKS AND BENEFITS

34. RISKS (?)

Describe the risks to participants and any steps that will be taken to minimize those risks. (Risks can be physical, psychological, economic, social, or legal. If the only potential risk is a breach in confidentiality if the data is lost or stolen, state that here):
<table>
<thead>
<tr>
<th>Will alternative procedures or treatments that might be advantageous to the participants be made available?</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
</tr>
<tr>
<td>Yes (Describe):</td>
</tr>
</tbody>
</table>

If your study is greater than minimal risk, describe provisions for ensuring necessary medical or professional intervention in the event of adverse effects to the participants (e.g., proximity of the research location to medical facilities, or your ability to provide counseling referrals in the event of emotional distress):

<table>
<thead>
<tr>
<th>35. BENEFITS (?)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Describe the possible direct benefits to the participants.</strong> <em>(If participants are not expected to receive direct benefits, please state “No direct benefits.” Completing a survey or participating in an interview will not typically result in direct benefits to the participant.)</em>:</td>
</tr>
<tr>
<td><strong>Describe the possible benefits to society:</strong></td>
</tr>
</tbody>
</table>
| **Evaluate the risk-benefit ratio.** *(Explain why you believe this study is worth doing, even with any identified risks.)*:
Appendix E: Permission Request

Application Request for Data or to Conduct Research in Schools

Department of Research and Performance Management

I am requesting:  

[ ] a data file  
[ ] for permission to conduct research in schools

Project Title: EXPLORATORY ANALYSIS OF VARIANCE: EXAMINING THE ROLE OF TEACHER EDUCATION LEVEL ON EDUCATOR'S SENSE OF SELF-EFFICACY

Name: Jonetta  
Prefix:  
First:  
Last: Cooper

Phone Numbers:  

Email Addresses:  

Employee:  
[ ] Yes  
[ ] No

Organization Affiliation  
(L.e., University of Memphis, UT): Liberty University

Applicant’s Role at Organization  
(e.g., student, professor, researcher): Student/researcher
If the proposed project is being conducted to fulfill a graduation or course requirement, please indicate the type:

- Master’s Thesis
- Ed.S. Thesis
- X Ed.D. Dissertation
- Ph.D. Dissertation

Other Requirement: 

University Advisor’s Name (if applicable): 

University Advisor’s Phone Number: 

University Advisor’s Email Address: 
Application Questions for All Applicants

When do you anticipate that your study will begin or when will you need your data file?

When do you anticipate your study will end? (Note that up to 40 working days may be required for the initial review of your proposal, and revisions may be required after the initial review)

List your research questions.

RQ: Is there a statistically significant difference in teachers’ sense of efficacy scores (TSES) among eighth grade inclusion teachers with bachelor's degree, master’s degree (MA, MS, MEd), and master's plus degrees?

What type of data sources are you planning to use? (check all that apply)

- Publicly available data
- Pre-existing data provided by the District
- New data that I collect as part of the project
- Other

Specifically describe the variables that you will need to conduct your analyses (e.g., gender, TCAP Achievement Reading/Language Arts scores from spring 2013).

Teacher Sense of Efficacy (TSES) scale scores.

Indicate the schools that will be involved in the study. Either list the schools if there are a few or describe the schools (e.g., all high schools, 15 randomly selected middle schools).

A convenience sample of 15 traditional middle schools in an urban county located in southwestern corner of Tennessee along the Chickasaw bluff.

Describe your proposed data analyses.
A one-way ANOVA exploratory analysis of variances was chosen to test the one hypothesis to align statistical procedures with the research questions and data collection. Screenings will be used to calculate descriptive statistics such as correlation, matrices, and percentages. Screenings will also be used to sort data and look for unusual scores and inconsistencies (Rovai, 2013; Warner, 2013). The researcher will use a Box and Whisker plot for each variable to look for extreme outliers.

Assumption of normal distribution will look for linear relationship between independent and dependent variables. The report on results will use the \textit{F-statistic} to examine the fit line. If findings yield no significant results, test will stop. However, if the fit line is significant then the researcher will proceed with post hoc analysis. The effect size will be reported with $R^2$ and alpha will be set at 0.05. Post hoc will use coefficients for testing null hypothesis. (Rovai et al., 2013; Warner, 2013).

**What is your plan for disseminating results from the study? How do you plan to report results back to the participating schools and the District? Do you plan to report results to audiences other than the schools or the District?**

I plan to disseminate the results of the study to the participating district upon request. There is no plan to report the results to other audiences outside of participating school district and Liberty University.

**Do you have approval of your study from an Institutional Review Board (attach documentation to the email with this form)? If not, explain why.**

Phase I of the research is to attain written permission from the school district and Institutional Review Board. Once permission is granted, I will advance with the research.

How will the study benefit the students of [insert name]?
Describe any potential risks for research participants (e.g., how will you maintain the confidentiality of any data collected or used?)

The following steps will be taken to ensure confidentiality: first, prior to collecting data, participants will be asked to consent to the anonymous study demographic survey, which will be combined with TSES data collection. Next, study codes will be placed on data collection material. Lastly, data will be kept in a locked document storage cabinet. A shredder will be used to discard information at the close of the study (Gall et al., 2007; Rovai, 2013; Tschannen-Moran et al., 2001; Warner, 2013)

**Please submit your application fee**
Supplemental Questions for Applicants Requesting Permission to Conduct Research in Schools

Describe your participants (e.g., 2nd grade students, Instructional Facilitators, Principals, etc.) Who will be in your sample?

A convenience sample of eighth-grade inclusion teachers who taught in the school districts traditional public schools. In addition, inclusion teachers’ demographics and TSES during the 2021-2022 school year will be collected.

How many people will be in your sample?

Traditional inclusion teacher participants \((n = 59)\) and 2021-2022 TSES long form scale scores. Also, demographics and TSES will be combined \((n = 59)\). For this study, a large sample size of 59 inclusion teacher participants who taught in ELA courses according to Gall et al. (2007), satisfies a large effect size of \(n = 51\) with statistical power of 0.7 the required minimum for a one-way ANOVA study.

How will your sample be selected?

A convenience sample in proximity of the researcher

Detail your research methodology. Be sure to include the following information:

What will study participants be required to do? Include an estimate of the amount of time that will be required per participant (e.g., three 45-minute sessions).

I will collect five pieces of demographic information: (a) gender, (b) age, (c) ethnicity, (d) certification type, and (e) highest degree/level of completion (see Appendix A for demographic form). SurveyMonkey allows researchers to logically order questions of inquiry. Demographic surveys are often used in numerous studies (Bourgeois, et al. 2016, McIntyre & SREE, 2014) to collect widespread demographic data. The form will require five minutes or less to complete.
Describe any measurement instruments that will be used (e.g., surveys) and attach copies to the email with this form.

The teacher efficacy survey will measure three subscales: efficacy for student engagement, efficacy for instructional strategies, and efficacy for classroom management. There are two forms of the survey.

I will use the 24-item long form to measure efficacy for student engagement with items 1, 2, 4, 6, 9, 12, 14, 22; efficacy for instructional strategies with items 7, 10, 11, 17, 18, 20, 23, 24, and efficacy for classroom management with items 3, 5, 8, 13, 15, 16, 19, 21 (see Appendix B for TSES form). Permission to use the TSES survey will be granted by participating schools. TSES long form were also used in previous studies (Atiles et al., 2012; Callaway, 2017; Colson et al., 2017) to look at the relationship between teacher and student engagement in middle school students using TSES and demographic information combined. For the purposes of this study, TSES will be used to establish validity and reliability of information. Reliability and validity of the TSES long form instrument highest score is 0.90; engagement 0.81; instruction 0.86; and management 0.86 with moderate to high reliability gauged by Cronbach Alpha scores (Rovai et al., 2013; Warner, 2013). The form will take approximately 10 minutes to complete per participant.

Indicate how data will be collected and how often. Specify when participants will be involved in study activities (e.g., after school).

I will meet SPED teachers from traditional schools to provide information about the research and allow participants to ask questions for clarity. Follow-up emails to initial contact will be sent within three days. Consent forms will be disseminated to teachers within a two-week period. If there is a low initial response rate, I will resend the email as a friendly reminder and mail a copy
of the letter to ensure participants received the information and can access it. Participants' information will be kept confidential, and pseudonyms will be used to protect any identifying information. I will code all school data and limit access. A strict protocol will be used to maintain confidentiality in the collection and storage of data. Teachers can take the survey at their own leisure (e.g., before or after school) eliminating disruption of the school day.

**What will be required of the District and participating schools?**

The participating school district will be required to provide permission to proceed with the study 2021-2022 TSES scale scores on 8th grade inclusion teachers. Schools will be required to provide demographic data, participating teachers email addresses, and the completion of TSES long-form.

**Will you provide any compensation to participants, schools, or the District for participation?**

There will be no compensation to the participants, schools, or district for participation.

**Please submit your application**