VOICES FROM THE TRENCHES: THE RELATIONSHIP BETWEEN

TEACHERS' GRIT, RESILIENCE AND THE INTENTION TO LEAVE THEIR

CURRENT JOB AMONG TEACHERS AND MILITARY VETERAN TEACHERS

by
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Dedication

I want to thank all the people that have helped me throughout this journey. The two strong women in my life that have been there for me throughout my doctoral journey and my life. My mother who has always believed in me, pushed me and raised me with two essential methods of child rearing: sarcasm and love. I feel that we are all indebted to our mothers and although this manuscript is filled with thousands of words, there are none that could capture the love and sense of duty I have for my mother. My wife who has propelled me to be the person I am today. She has been an amazing mother to our boys who have become men. Although my name is on the title page, her name should be added to it because she has kept the world around me together as I sit on my laptop typing out all these pages. She has given me the comfort and assurance to be able to complete this journey while the world could be on fire. The honor and recognition currently shine on me because she shines the light. I am truly standing on the shoulders of giants.

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is the first time I felt I taught the pillars of being human. This is for all of those beautiful minds.

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Abstract

Background: Teacher turnover is a significant concern for many school districts, costing school districts millions in training costs and induction processes. Turnover also causes severe disruptions in schools. The recruitment of military veterans in the U.S. as teachers has emerged as one strategy to address teacher turnover since careers in education require teachers to build resilience and grit to counter the stresses involved with long term careers. In addition, teachers in underachieving schools must work harder to bridge the achievement gap between white students and non-white students, which further increases the workload. **Purpose**: The purpose of this study was to investigate the relationship between teachers' grit, resilience, and the intention to leave their current job among military veteran teachers serving low-income districts and non-military teachers teaching in the same schools. The study examined the differences in levels of grit and resilience between teachers with a military background and those without such a background. Also, the study examined the relationship between grit, resilience, and the intention to leave the teaching position among military veteran and non-veteran teachers. **Methods**: Quantitative research was used to examine the formulated research objective where survey questionnaires were used to collect data from military veteran teachers and non-veteran teachers without a military background currently working in the two school districts. The survey instrument consisted of three scales: the turnover intention scale, the teacher resilience scale, and the grit scale. Regression analysis was performed to examine whether there is a relationship between intention to leave (dependent variable) and resilience, grit, and teacher type (independent variables), using age, gender, race/ethnicity, and experience as control variables with 440 participants. **Findings**: The results reveal that the level of resilience among teachers with

the non-military background was significantly lower compared to higher resilience levels recorded among teachers without a military background. Thus, teachers with military background had better resilience than teachers without a military background. Further, the level of grit among teachers with the military background was higher compared to that of teachers without a military background. The results of the linear regression further showed that even after controlling for age, gender, race/ethnicity, and experience, there was a higher intention among teachers without military background to leave the teaching profession compared to teachers who have a military background. **Conclusion**: The results emphasize that high levels of grit and resilience are associated with lower intent to leave the teaching profession in Texas elementary, middle, and high schools. Based on the current finding, it can be emphasized that school administrators may achieve better recruitment and retention by hiring teachers who are military veterans because of their higher levels of grit and resilience, and lower intentions to leave the teaching profession. Further, school administrators should consider providing regular guidance and mentorship to their teachers to motivate them on how to be resilient and committed to their teaching profession. Offering regular training and mentorship would help non-veteran teachers develop higher levels of commitment and grit towards the teaching profession similar to their veteran counterparts.

Key Words: *Resilience, Grit, Military Veterans, Teachers, Teacher Turnover, Retention*

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Chapter 1

Introduction

Background

Studies continue to point to teacher quality as one of the most significant factors in student learning (Osuch, 2014; West, Lunenburg, & Hines III, 2014). Although there is no consensus regarding how to define or measure teacher quality, most research suggests it is one of the most integral parts of school improvement (Berliner, 2005; Boyd, Goldhaber, Lankford, & Wyckoff, 2007; Heck, 2007; "Recruiting and Retaining 'Highly Qualified Teachers' for Hard-to-Staff Schools," 2013; Walsh, 2001). For the purpose of this study, I will use Heck's (2007) definition of teacher quality, which refers to a teacher being certified in specific content area, having met performance standards established by the state in which they were teaching, and having a net positive effect on student achievement. In his study, Heck (2007) found that students taught by highly qualified teachers recorded higher growth rates in mathematics as compared to students in schools taught by teachers with lesser quality. Additionally, several studies describe the need for highly qualified teachers to effectively promote student growth, particularly in under-achieving schools with a high drop-out rate (Boyd et al., 2011; Clouse, 2013; Jacob, 2007; Osuch, 2014).

While school districts continue to prioritize the retention of highly qualified teachers to improve academic achievement (Borman & Dowling, 2008; Ronfeldt, Loeb, & Wyckoff, 2013), schools, particularly underserved schools, also face persistent teacher turnover. Underserved schools have a large proportion of students receiving free or reduced-price lunches, are first generation, low income students, and are students of

color. (Green, 2006; Matson, DeLoach, & Pauly, 2004; Rendón, 2006). The student

needs in undeserved schools are not often met due to current funding system, which

limits the resources they have. As a result, such schools often have fewer instructional

materials, poor quality books and fewer computer facilities. In addition, the underserved

schools also have large class sizes, unqualified teachers and fewer laboratory facilities

compared to the other well-funded school districts (Darling-Hammond, 2003). Although

many districts try to address their shortage of effective teachers at their underserved

campuses, nationally, the average percent of teachers seeking other professions after five

years is 30 percent, and it increases to 50 percent in non-affluent schools (Boe, Cook, &

Sunderland, 2008; Ronfeldt et al., 2013). These schools, categorized as "hard-to-staff"

schools, often have difficulty recruiting and retaining highly-qualified teachers due to

many reasons including school location, school performance, age of facilities, work

conditions, or schools' late-hiring practices (Borman & Dowling, 2008; Boyd, Grossman,

Lankford, Loeb, & Wyckoff, 2009a; Green, 2006; Levin & Quinn, 2003; Ronfeldt et al.,

2013). The schools that need highly-quality teachers the most are more likely to hire

novice teachers (CITE) or teachers not certified in their studies, yet these teachers

continue to leave in higher proportions and do not have a chance to improve their

teaching and classroom management skills (Barnes, Crowe, & Schaefer, 2007).

From an organizational standpoint, high turnover rate is costly for districts due to

an increase in training costs and induction processes as well the disruption it causes. To

replace these vacancies, districts must spend monies on recruitment, hiring and training

teachers instead of using such resources in improving student academics and learning

(Barnes et al., 2007; Simon & Johnson, 2015). Research on the effects of teacher turnover

on student achievement have focused on "intangible" factors not associated with only salary issues such as the effect on the trust and relationships built with teachers staying in the profession (Guin, 2004). The negative effect of teacher attrition is greater in schools that need strong teacher-student relationships the most, such as underserved campuses that have a higher proportion of non-white students where parent involvement is lacking. (Boe et al., 2008; Grissom, 2011; Ronfeldt et al., 2013). As districts focus on the whole child, understanding the importance and developing greater student non-academic support through school personnel and services, the retention of teachers who effectively build strong relationships with these students becomes critical in the development of this relationship (Eber, Hyde, & Suter, 2011; Fries, Carney, Blackman-Urteaga, & Savas, 2012; Walter & Petr, 2011).

There are many explanations for high teacher turnover. Some of the key causes of teacher attrition include the challenges of working in schools with minimal parental involvement, ineffective leadership, lack of peer support, mentorship initiatives, and subpar onboarding processes (Borman & Dowling, 2008; Chapman & Green, 1986; Eskreis-Winkler, Duckworth, Shulman, & Beal, 2014.) While low salaries have been cited by teachers as a reason for leaving the profession, isolation and lack of administrative support, including empowerment, are the most cited reasons (Borman & Dowling, 2008; Chapman & Green, 1986; Green, 2006; Heck, 2007; R. M. Ingersoll, 2001; Simon & Johnson, 2015). Although these are a few reasons teachers continue to leave the profession, recruitment and preparation practices should be paramount to deter teacher burnout in urban schools (Boe et al., 2008; Darling-Hammond, 2003; Sargent, 2003).

At the same time districts are battling attrition rates and underserved schools are trying to recruit and retain high-quality teachers, currently there are over 200,000 unemployed military veterans between the ages of 25 through 54 ("Employment Situation of Veterans Summary," 2018). The Montgomery GI Bill post War World II was established to combat this unemployment rate by assisting veterans' transition into the civilian workforce with some assistance into higher education (DiRamio, Ackerman, & Mitchell, 2008). Since 2009, over 600,000 veterans have enrolled in colleges and have taken advantage of their veteran benefits while the percentage of veterans attending college increases (Griffin & Gilbert, 2015; Moore, 2013).

In response to the problem of teacher turnover, especially in underserved schools, and the abundance of military veterans unemployed, the Department of Defense established the Troops to Teachers program in 1994. The program had two aims. First, the program was meant to improve public education by providing qualified teachers to underserved schools located in urban neighborhoods. The second goal of the program was to assist military personnel gain employment as these warriors transition into teaching careers as their second career (Owings, Kaplan, Khrabrova, & Chappell, 2015a; Shaul, 2001; "Troops to Teachers", 2018). These Troops to Teachers candidates are given incentives to work in high-need student populations and high need schools which have a higher proportion of minority students who qualify for free and reduced lunch programs and low student scores on standardized state exams (Buddin & Zamarro, 2009; Harper, 2015).

According to the limited research done on military veteran teachers and student achievement, there is potential for positive student growth in long-term academic

achievement and drop-out prevention when these veterans teach in undeserved schools (Moore, 2013; Osuch, 2014; Owings, Kaplan, Khrabrova, & Chappell, 2015a). In Owings' (2015) research, he argues that teachers who sought education as a second career are effective educators who continue to fulfill the shortage of STEM teachers in urban schools. Owings' studies also affirm that these teachers stay in education longer as they continue to use their military experience to diversify their practices to meet the needs of students in urban schools. Over 70% of the teachers surveyed stayed 6 or more years and 55% staying over 10 years. Moreover, principals reported that military veterans built better relationships with their students' parents as well compared to teachers who did not serve in the military.

Although Owings's studies focused primarily on TTT performance as well as the quality of their preparation into teaching, there is a lack of research on the impact of military experience itself on the resilience and grit among veterans who choose teaching as a second career. In these few studies, a lack of both resilience and grit have been found to predict intention to leave the teaching career, especially in undeserved schools where teacher attrition is higher and has a larger effect on student outcomes (Boe et al., 2008; Ronfeldt et al., 2013). With this research, these predictors have also been associated with teachers who have never served in the military (Arnup & Bowles, 2016; Robertson-Kraft & Duckworth, 2014). Military experiences have provided many of these veterans with positive experiences and effective coping strategies to bounce back from rigorous or traumatic training and events (Campbell-Sills et al., 2018; Tsai, Sippel, Mota, Southwick, & Pietrzak, 2016). Exposure to a myriad of coping skills and practices make these future educators well prepared to work at "hard-to-staff" campuses and stay. (Brooks &

Goldstein, 2008; Moore, 2013; Owings, Kaplan, Khrabrova, & Chappell, 2015).

Therefore, the purpose of this study is to examine whether the experiences that veterans have obtained while serving in the military have allowed them to develop higher levels of personal grit and resilience in the classroom than non-veteran teachers, and whether differences in the levels of grit and resilience might explain differences in teachers' intentions to leave their job.

Background of the Problem

The lack of effective classroom management skills, negative attitudes and poor administrative leadership skills have been cited as the main teacher-related factors contributing to the high turnover of teachers in underserved schools (Guin, 2004). Among these schools, the lack of adequate resources, stressful working conditions and teacher burnout have been stated as the main environmental factors that influence the rate of attrition among teachers. The main administrative factors that contribute to high teacher turnover in low-achieving urban schools include the lack of effective mentorship programs, inadequate resources and the low level of support that is offered by the school administrators to the new teachers (Darling-Hammond, 2003; Guin, 2004; Sutcher, Darling-Hammond, & Carver-Thomas, 2019).

Factors Contributing to Teacher Turnover. On average, 30% of teachers will leave the profession within the first five years of service (Simon & Johnson, 2015), and the problem is more significant in high poverty schools where up to 50% leave within their first five years (R. M. Ingersoll, 2001; R. Ingersoll, Merrill, & May, 2012). According to their extensive research on teacher retention, Donaldson and Johnson (2011) cite several school-related factors that contribute to high turnover of teachers in

high poverty schools. These include an inadequate amount of classroom management preparedness, inadequate administrative leadership, stressful working conditions, and ineffective mentor programs. New teachers at these schools with high attrition cite a lack of preparedness to work in an urban classroom (Buddin & Zamarro, 2009; Darling-Hammond, 2003; Guin, 2004). Benoy (2018) reported that several administrative factors contributed to teacher attrition and included: (a) low discipline and negative teacher attitudes, (b) poor parental support, (c) pressure to enhance the performance of students, (d) burnout and workload, (e) poor time management, (f) poor teacher replacement practices, (g) lack of resources, (h) lack of professional development, and (i) failure of administration to listen to the plight of teachers.

In their study, Chen et al. (2007) concluded that lack of discipline is a major cause of teacher turnover. Lack of oversight in underserved schools is correlated with poor discipline among students, and consequently, teacher turnover. The implication is that most teachers are unable to withstand the pressure of working alongside students who show less discipline or have a lack of parental involvement (Darling-Hammond, 2003; Sutcher et al., 2019). The poor working conditions in underserved schools is also considered as one of the main factors outside of the classroom that influence the high turnover among teachers at underserved campuses. Poor working conditions, according to Machtinger (2007) may manifest in the form of lack of adequate computers, shortage of books, non-functioning amenities and structural deficiencies. According to the study of Machtinger (2007), 20% of new teachers were likely to leave their current posting due to lack of adequate instructional materials and other facilities such as laboratory and computers.

The high teacher workload in low-achieving underserved schools can influence the rate of teacher turnover in such educational settings. Smethen (2007) attributes teacher turnover to increased workloads as these new teachers have to attend trainings and try to handle difficult situations that accompany an unorganized school. In high poverty or underachieving schools, teachers must work harder to bridge the gap between high achievers and low achievers, which further increases the workload. Interventions and scaffolding meant to bridge the gap require extra planning and effort resulting in an increase in teacher work (Borman & Dowling, 2008; Boyd, Grossman, Lankford, Loeb, & Wyckoff, 2009). Owings et al. (2015) further contends that novice teachers tend to begin their service in underserved schools because these schools have the most open positions due to high turnover.

Schools that have a strong culture in maintaining effective teacher-student relationships are likely to experience less teacher turnover compared to those with a poor cultural orientation (Simon & Johnson, 2015). When schools receive report cards for their current state, teacher turnover is one of the key markers in determining the health of the campus (Guin, 2004). When schools have a high attrition rate, the campus is deemed to have poor working conditions and according to Simon (2013) teachers leave high-poverty schools due to poor working conditions, not due to the student population. In their collection of studies, teacher attrition has a negative correlation with school culture and climate that could affect student outcomes such as academics and attendance (Ronfeldt et al., 2013; Simon & Johnson, 2015). Since most studies cite the critical factor in student growth is the quality of the teacher and the relationship they build with these students as they focus on the whole-child, the school culture affects the organizational stability, in

turn, limiting the fostering of student teacher relationships. Organizational stability refers to the school's ability to perform at a high caliber despite all the external and dynamic internal changes that arise from any school year (Boyne & Meier, 2009; Heck, 2007).

Critical Shortage in low-achieving urban schools. Low-achieving urban schools are defined as those educational institutions that are not well-funded, have fewer resources and are characterized by poor working conditions (Darling-Hammond, 2003). Teacher turnover is higher in urban low-achieving schools, leaving a shortage of highly qualified teachers in these schools (Guin, 2004). A report by the National Schools Board Association (2017) states that the rate of teacher attrition in low-achieving urban schools is 20% per school year. In addition, the report also states that 50% of new teachers who are posted in low-achieving urban schools leave their profession in the first five years (National Schools Board Association, 2017). Moreover, the critical shortage in math and science classes refers to highly qualified teachers leaving urban schools and trek towards a more stable school with less teacher turnover (R. M. Ingersoll, 2001; Sessoms-Penny, 2007; Shaul, 2001). Schools with a high population of minority students in urban districts tend to lose their teachers and staff and have a higher rate than schools with a lower proportion of minority students (Guinn, 2004; Harper, 2015; Sessoms-Penny, 2007). School districts have tried to combat this shortage with incentives and stipends that would steer some of these highly qualified teachers to these urban low-achieving schools and to keep them at these schools (Coates-McBride & Kritsonis, 2008; Guarino, Santibañez, & Daley, 2006). Regardless, schools have to spend money on training new teachers, and according to Barnes' 2007 collection of studies on costs of teacher turnover, low-income schools spend a proportionately higher amount on teacher turnover, and most

of these teachers do not plan on staying at that school, in effect continuing a cycle of a less effective staff, inconsistent instruction as experienced teachers leave and new ones come ill-prepared (Barnes et al., 2007; R. M. Ingersoll, 2001; Simon & Johnson, 2015). Darling-Hammond (2003) observes that rather than spending substantial money on training new teachers, the schools should also institute effective induction and mentoring programs that would support the new teachers and motivate them to continue working in the low-achieving urban schools. A study conducted in California schools found that the implementation of high-quality induction and mentoring program reduced the rate of teacher attrition by 26% (National Schools Board Association, 2017). The skills and the positive effects of an experienced teacher staff is invaluable as they honed the skills to build positive student relationships in these low-achieving schools where they are needed the most. These positive relationships help teachers cope with the difficulties in teaching plus they affirm these teacher's commitment to helping students (Beltman, Mansfield, & Price, 2011). When teachers feel supported and when these new teachers have positive outcomes from their everyday classroom experiences, this builds on their resilience (Eldridge, 2013). When experienced teachers continue to leave urban schools with a high minority population, these students will be taught by less experienced teachers.

Resilience and Grit. The level of teacher resilience and grit is an important attribute factor that determines the likelihood of teacher turnover. The rate of teacher turnover is high among teachers with low resilience and grit. High teacher turnover and inconsistent instruction create an environment that stresses all teachers, further perpetuating the cycle of attrition (Boyd et al., 2009). Without building and developing a higher sense of resilience or grit, these new teachers will most likely leave these hard-to-

staff campuses where they are needed the most (Grant &Kinman, 2013; Ronfeldt et al., 2013; Simon & Johnson, 2015; Strange, Johnson, Showalter, & Klein, 2012). In Gu and Days (2013) study, they cite various factors that might affect teachers' commitment to stay in the classroom, including outside factors. In most studies, resilience is not necessarily innate, but a combination of experience and interactions (Beltman et al., 2011; Eldridge, 2013; Smith et al., 2008). Military veterans share some similar trainings along with tough mental and physical experiences adding to their resilience as they extend their careers to teaching (Eskreis-Winkler, Duckworth, Shulman, & Beal, 2014; Tsai et al., 2016). In spite of the challenging conditions teachers face daily, resilient teachers continue to work longer in these hard to staff schools.

Troops to Teachers. Programs such as Troops to Teachers have a mission to alleviate some of the shortage of highly qualified teachers in these hard to staff schools, so these veterans have purposely been placed in these schools with high teacher attrition and where they need the most staffing attention. Studies show these veteran teachers who start in these difficult schools continue to stay (Eskreis-Winkler, Duckworth, Shulman, & Beal, 2014; Hancock & Scherff, 2010; Owings et al., 2015). The TTT program has multiple goals. These include reducing veteran unemployment; improving education in the United States by providing motivated, skilled, and devoted personnel for the American classrooms; increasing the number of male and minority teachers in today's classrooms; addressing teacher shortage issues in K-12 schools that serve low-income families and in the critical subjects - math, science, special education, foreign language, and career-technical education; and increasing teacher retention (Burkhard, 2008; Shaul, 2001; "Troops to Teachers," 2018).

Statement of the Problem

Although both resilience and grit have been found to predict intention to leave, there is little research on the relationship between grit, resilience and the intention to leave among military veterans who sought a second career in education. Day and Gu (2008) observe that military veteran teachers show greater resilience and grit due to the fact that they have been exposed to several sustained challenges in their lives. Therefore, such teachers are likely to put up with any adverse working conditions in low-achieving underserved schools. Teachers turn over at a high rate, particularly in low-achieving schools, and research points to a lack of grit and resilience among teachers as one explanation (A. Duckworth, 2016; R. Ingersoll et al., 2012; Robertson-Kraft & Duckworth, 2014). Veteran teachers often come into the classroom through veteran assisted programs such as Troops to Teachers, which was created in part to address teacher shortages, and their presence may ameliorate the challenge of high turnover to the extent that they have higher levels of grit and resilience than non-veteran teachers. There is little research, however, on teacher resilience, particularly among veteran teachers. Although most of the veterans seeking a career in education after their service fulfill many of the gaps left from harder-to-staff schools in urban areas, are mostly male and minorities, and they continue to stay in education longer (Burkhard, 2008; Coupland, 2004), it is unclear whether they stay longer due to a higher level of grit and resilience, or other reasons.

Purpose of the Study

The purpose of this paper is to examine the relationship between teachers' grit, resilience and the intention to leave their current job among military veteran teachers

serving low income districts and non-military teachers teaching in the same schools. The study focuses on underserved schools which experience high levels of teacher attrition due to many challenges, including lack of funds and poor working conditions which can pose a key challenge to individuals with low resilience and grit. In this study, resilience and grit was assessed and compared among the two groups- military veterans and those that did not serve in the military. This study then tied these differences to the teachers' intention to leave.

Research Questions

This study was guided by the flowing questions:

1. To what extent are there differences in levels of grit and resilience between teachers with a military background and those without such a background?

2. What is the relationship between grit, resilience and the intention to leave a teaching position among military veteran and non-veteran teachers?

Research Hypotheses

H1: Teachers with a military background have higher levels of grit and resilience as compared to teachers with no military background

H2: High levels of grit and resilience are associated with lower intent to leave teaching service among teachers.

Significance of the Study

There is limited research on the resilience and grit of teachers who served in the military and sought a second career as teachers. The study will add to the existing knowledge on the impact of grit and resilience on teachers' intention to leave. First, this study assesses the relationship between teachers' military background and their intention

to stay in urban schools. As stated earlier, there are various reasons for teacher turnover caused by external factors that affect teachers' intention to stay or leave; we will focus on an area of research of military personnel and their intent to stay in education due to a grit and resilience. The study also compares grit and resilience of teachers with a military background to that of teachers without military background to try and determine whether military service is associated with higher levels of grit and resilience. This will provide evidence on impact of military service and also support the efforts of veteran assisted programs, such as TTT, to transition more military personnel to join the teaching profession to tackle teacher turnover and attrition. Finally, the study also provides evidence of some key sources of grit and resilience in former military personnel and how it transitions into classroom practices or in education in general. As one of the key goals of veteran programs is to provide employment to these veterans, districts could use more resources into recruiting these veterans who are seeking education as a second career.

Methods

The current study employed a quantitative non-experimental causal comparative design to identify differences in levels of grit and resilience between teachers with and without a military background, and to determine whether there is a relationship between grit, resilience and intention to leave among military veteran and non-veteran teachers. The sample consisted of military veteran teachers and non-veteran teachers without a military background currently working in two Texas school districts. The Texas Independent School District in the Houston area and the other school district near the Texas-Mexico border, the Alamo School District. Participants completed a survey asking

about their levels of resilience and grit, their military service, the schools they work at, and whether they intend to leave at the end of the current school year.

Teacher resilience was measured using the Teacher Resilience Scale. Simply defined, resilience is the ability to "bounce" back, but for the purpose of this study, we will use Brunetti's (2006) description of teacher resiliency as the teachers' commitment to stay in the classroom despite all the external and internal challenges teacher face daily. In this study, we used Duckworth's definition of Grit as relentless passion towards long-term goals. Grittiness was measured using the Short Grit Scale (Duckworth & Quinn, 2009).

Data analysis involve both inferential and descriptive statistics. Independent t-tests was used to determine whether there are mean differences between the teachers with military background and the teachers without military background. This test was used to help determine whether there are any statistically significant differences between the mean scores in, first resilience, and second grit, of the two groups, namely, veteran and non-veteran teachers (Salkind, 2010). Regression analysis was used to evaluate the relationship between grit, resilience and intention to leave, answering the second research question, "What is the relationship between grit, resilience and intention to leave among military veteran teachers?"

Limitations

There are several limitations that might affect the reliability and validity of this study. The first arises from the research design of the current study. Causal comparative studies are limited by lack of research control, potential reversal of effects, potential overestimation of self-surveying, and confounding variables mediating the relationship

between the hypothesize cause and effect (Wayman, Foster, Mantle-Bromley, & Wilson, 2003). In most cases, causality cannot be identified. However, to reduce the potential threats to validity, the current study used property score matching to create a comparison group of non-veteran teachers who are similar to the veteran teachers (Salkind, 2010). Lastly, the limitations of the survey and districts, issues of external validity will arise.

One of the main limitations of the survey is the likelihood that the sample respondents may not provide an accurate assessment of their reason for leaving the profession while working in a low-achieving underserved school (Salkind, 2010). Darling-Hammond (2003) observes that certain questions that are posed in the survey may place the respondents in an uncomfortable situation. The survey responses may also be inaccurate due to limitations on the study participants' memory and ability to recall facts (Salkind, 2010). The nature of the survey (questionnaire) instrument design may also have an adverse effect on the validity of the participants' responses and the data collected (Wayman, Foster, Mantle-Bromley, & Wilson, 2003). The survey may also be associated with bias when the non-response is associated with a specific subset of the sample such as the non-veterans or the veterans (Salkind, 2010). Finally, limitations due to issues related to the interpretation of the survey questions may also introduce errors and bias, which could affect the external validity of the survey instrument (Darling-Hammond, 2003), especially since the level of resilience is self-reported and self-perceived

Definition of Terms

   Resilience: the ability and capacity of an individual to regain mental wellbeing after experiencing an adverse event, or simply one's ability to bounce back after experiencing negative and stressful emotional events.

   Grit: refers to passion towards long term goals, and sustained commitment towards achievement of those goals even in the presence of challenges, adversity and setbacks.

   Military background: an individual with a military background is one who has served for a given period in the armed forces. For the purpose of the current study, an individual with military background are those who have successfully transitioned from military service to teaching service.

   Intention to leave: this refers to an individual's perceived willingness to leave a position of employment or withdraw from the organization as a whole. It also refers to the willingness of an employee to withdraw from an organization permanently. Intention to leave is a good predictor of turnover and can therefore be used as a predictor for future teacher turnover.

   Military veteran teachers: these are veterans who transition successfully from military service to teaching as their second career.

   Underserved schools: these are schools that do not receive or lack sufficient resources to provide high quality instruction for their students. Majority of such schools are located in low income areas. Most of these schools serve a high minority percentage of students.

Underserved students: These are students who do not have access to equitable resources, including financial, instruction and education resources as their peers. Majority of underserved students come from low income communities and ethnic minorities, and other marginalized groups.

Alternative Certification Program: Any program assisting in teacher certification outside of the traditional four-year baccalaureate route. Most of these programs are not education majors.

Chapter 2

Literature Review

The purpose of this paper is to examine the relationship between resilience and grit of teachers who served in the military and those teachers that have not. Grit and resilience and intention to leave among teachers with military background has not been studied. In addition, there is insufficient evidence of whether there are differences in grit between teachers with a military background and those without. Specifically, this study researched the intention to leave low-income schools between military veteran teachers and non-military teachers in the same schools. This purpose of this chapter is to discuss the impact of teacher attrition in low income schools, examine the effectiveness of the

veteran assistance programs such as Troops to Teachers and analyze the resilience and grit of military veteran teachers compared with those that did not serve in the military. Veterans who have successfully completed their military careers have been trained to cope with various external factors that vary from team-building to dire combat survival conditions. The coping, the bounce back factors and the necessity of long-term team goals developed through training and experience foster resilience that could be transferred to secondary careers such as education (Coupland, 2004; Griffin & Gilbert, 2015). In this study I focused primarily on the intention to leave underserved schools.

The Troops to Teaching to Troops program was established to assist military personnel transition smoothly into the teaching profession. The second aim of the program is to provide much needed teaching personnel to underserving public schools (Nunnery, Kaplan, Owings, & Pribesh, 2009a; Owings et al., 2015a; Shaul, 2001). Established in 1994 to help veterans begin a career as a K-12 school teacher, Troops to Teachers offers "counseling and referral services for participants to help them meet education and licensing requirements to teach and subsequently helps them secure a teaching position ("Troops to Teachers," 2018). The TTT Program Office is located within the Defense Activity for Non-Traditional Education Support (DANTES), a wing of the Defense Human Resources Activity (DHRA). The TTT Program Office oversees day-to-day operations and management of the program to facilitate veterans in their new pathway to becoming teachers.

The current literature review chapter will discuss the purpose of this study, the impact of alternative certificate programs including the Troops to Teachers programs which specifically targets military veterans seeking a career in the education sector. This

chapter will also discuss the research and impact of grit and resilience in the teaching

profession and some implications this may have on teacher attrition rates.

Program Purpose

The Troops to Teachers (TTT) program was created to provide monetary

assistance to recruit and support former members of the military as teachers to supply

low-income urban schools with teachers who could provide these crucial leadership skills

and fill the three spaces previously mentioned: minority teachers, positive male role

models, and teachers capable of working in an urban school setting (Cherng& Halpin,

2016; Coupland, 2004; Osuch, 2014; Owings et al., 2015; Shaul, 2001). Once an

individual has been accepted into the program, they can enroll in an education program

for accreditation. These programs provide a range of services from alternative teacher

preparation pathways to traditional university degrees in education. The military

personnel accepted into the program receive assistance in completing their Bachelor's

Degree, a requirement into most Alternative Certification Programs, and receive their

teacher certification through this route. In some states there are stipends for TTT

candidates to work in specific districts. Specifically, a stipend of $5,000 is given to

teachers to cover certification expenses if they agree to work in a high need school

situated in a district where half of the student population is eligible for reduced price

lunch programs and students with disabilities (Owings, 2015). In other cases, military

personnel with education background in technical subjects, vocational training, foreign

languages, special education, science and mathematics were also given priority during

school selection in some districts as they provide a wealth of experience into the

classroom (Owings, 2015). The amount of states participating in this program continues

to increase as districts begin to encounter success in TTT and their fulfillment to similar purposes.

Two of the main goals of the TTT program are to increase employment rates of their veterans seeking a career in education and to help alleviate the shortage of highly qualified teachers in urban schools. Over 10,000 Troops to Teachers participates have found employment in over 2,000 districts ("Troops to Teachers," 2018). Although most alternative certification programs assist post baccalaureate participants receive teacher certification, TTT assist military veterans specifically transitioning into the classroom. The teachers in the TTT program receive funding and stipends for working in low-income students with a high need for qualified teachers. In 2015, the stipend was up to 5,000 dollars covering certificate expenses. These expenses could be certification exams, study material and job placement expenses (Owings et al., 2015; "Troops to Teachers," 2018). TTT participants could also receive a 10,000-dollar stipend if they stay employed in these school districts for 3 years. In Owings et al. (2015) study in which he surveyed administrators, he found that 92% of the principals surveyed would agree that these veteran teachers transitioned well into diverse classrooms.

Not all military experiences are positive, and some veterans experience tension leaving the military life into the civilian sector, but programs like TTT helps these veterans lessen these challenges (Koenig, Maguen, Monroy, Mayott, & Seal, 2014; Owings et al., 2015). Troops to Teachers helps these veterans overcome some of the difficulties of civilian adjustment by providing counseling services, referral services, and peer interaction. Seeking new employment is difficult, so adding the adjustment into the civilian sector adds some extra trials these troops must face. Most of the mentors of the

program are prior service veterans that work with each participant as they adapt from the trenches to the front of the classroom (Burkhard, 2008; "Troops to Teachers," 2018). This program and the studies Owings and Osuch have done would assist other veterans as they begin this trek into teaching by informing them of successes from previous service members. The rate in which these service members would also increase when districts see the potential role these veterans would have in their classrooms.

Teacher Certification and TTT

Historically, teachers have attended a university and received four years of formal teaching education, but each state has their own certification requirements and processes to supply classrooms with teachers (Haar, 2005; Lowe, 2012; Wayman et al., 2003a). Most Alternative Certification Programs are similar and require the teacher to pass certification tests along with attain a Bachelors; programs vary with the amount of field experience, time spent in the classroom, and pedagogical studies (Constantine et al., 2009a). With the implementation of *No Child Left Behind Act* (2001), the federal government increased the standards for school accountability and teacher qualifications. As a result, states found themselves with a shortage of teachers in low-performing schools and certain subject areas, with African American students disproportionately likely to have less qualified teachers (Boyd, Goldhaber, Lankford, & Wyckoff, 2007; A. L. Duckworth, Quinn, & Seligman, 2009; Ingersoll, 2001; Shaul, 2001). With teacher shortages at these campuses and the increase of national standards for highly qualified teachers, AC programs flourished as a way to provide a faster path to teacher certification for those individuals who already have a Bachelor's degree (Haar, 2005; Helton, 2008; Humphrey, Wechsler, & Hough, 2008).

According to Casto and Bauml (2009), future educators enroll in AC programs and choose the education field as a second career for various reasons. Some have already completed a Bachelor's Degree program from a four-year university but choose to get their teacher certification through AC programs so they do not have to spend more time and money in school (Castro & Bauml, 2009; Constantine et al., 2009b; Jorissen, 2003). For people pursuing a second career or for those who have left the military, going back to a four-year university often is not convenient time-wise or financially (Constantine et al., 2009; Helton, 2008; Jorissen, 2003). Military veterans deciding to dive into the teaching field are honorably discharged from the military at a later age then their cohorts who attended college immediately from graduating high school and yet have amassed a wealth of training that is more than comparable to some of the educational aspects and field work they would have acquired in a traditional college classroom (Eskreis-Winkler et al., 2014; Jorissen, 2003; Moore, 2013).

Experience. Educators seeking certification after their first career provide classrooms with a variety of experience from business and trade fields. Over 40 percent of the teachers in AC programs worked in fields not associated with teaching delivering schools with experience that would benefit K-12 students (Haar, 2005; Helton, 2008; Humphrey & Wechsler, 2007; Lowe, 2012). Common prior careers include business administration, business management, consultation, accounting, vocational trades, and military veterans (Castro & Bauml, 2009; Haar, 2005; Kokiko, 2009). These skills could help build teacher-student relationships as these teachers add some relevance to their lectures. Along with these professional experiences, ACP teachers also have experience with time management and raising children. Both add to their own teacher-efficacy and

resilience to stay in the profession and in schools that have difficulty recruiting highly

effective teachers (Jorissen, 2003).

      Minority Representation. As districts persist in closing the race gap between

teachers and students and initiate culturally responsive pedagogy, AC candidates,

including TTT participants have a slightly higher minority representation than those

graduating from traditional university routes (Castro & Bauml, 2009; Roberts, 2010;

Sleeter, 2017). There are also more males and older educators completing their

certification on these alternative routes. The current trend of multicultural education

relies on the fact that we need more educational equity in the classrooms and the need to

train teachers to view their diverse classrooms through a culturally responsive lens.

(Achinstein & Aguirre, 2008; Gorski, 2008; Muschell & Roberts, 2011). The AC

programs provide these classrooms with racial representation of the community with

teachers with similar backgrounds closing the race gap and providing students with more

representation particularly in schools with a large minority population. Although there are

mixed reviews on whether same-race teachers have a significant effect on student

outcomes, these teachers serve as role models and increase student engagement. There

are also studies that indicate students of color have some positive academic gains in

secondary schools with same race teachers (R. Ingersoll & May, 2016; R. Ingersoll et al.,

2012; Milner & Laughter, 2015; Sleeter, 2016). Students of color make up close to 50

percent of the student population across the US, but teachers of color only make up 18

percent (Egalite, Kisida, & Winters, 2015; Sleeter, 2017). In Texas, minority students

make up over 70% of the student population while 60% of the teachers are white. This is

an important statistic as teachers of color have a positive impact on student self-efficacy

and "teachers of color can serve as role models for students of color, as we noted in our previous report, and when students see teachers who share their racial or ethnic backgrounds, they often view schools as more welcoming places" (Brown &Boser, 2017, p. 2).

Leadership and Modeling Skills

The TTT program also helps minority male students receive more minority male teachers to provide demographic complement and fitting role modeling while simultaneously bettering veterans to find meaningful careers in the civilian sector of education (Osuch, 2014). School leaders have cited leadership and modeling characteristics of US Veteran teachers as quality educators on their campuses, and there is much analysis of how these specific teacher traits have been conducive to student learning and long-term academic successes (Berliner, 2005; Borman & Dowling, 2008; Owings et al., 2015; Robertson-Kraft & Duckworth, 2014). In Owings' (2015) comparison study on principals' perception of quality teachers, some of the characteristics rated high amongst veterans who become teachers include, "follow school regulations, instructional effectiveness compared with a traditional teacher, and how well do principals report that TTT completers are meeting the needs of diverse learners in their classrooms?" (p.16). Additionally, the study includes a self-report in which the 98-99% of the military veterans "Always or Usually use research-based classroom management practices" (Owings et al., 2015, p.19). According to the principal surveys, some of the skills and traits acquired in military environments can be correlated to the same variables mentioned in these studies about teacher quality (Nunnery, Kaplan, Owings, &Pribesh, 2009; Osuch, 2014). Some other findings from Owings et al. (2015) study include over

90 percent of the principals surveyed reported their military veteran teachers are more effective in classroom instruction and management; the military veteran teachers reported their military experience prepared them to be successful classroom teachers; and 74 percent of these teachers planned on staying in the teaching career.

Most of the research on TTT participants has been positive, and leadership is often mentioned as an important factor in the participants' successes (Osuch, 2014; Owings et al., 2015). A number of these military veterans have moved from the classroom into school administrative positions to continue to use their leadership skills and build camaraderie benefitting from the similarities of military leadership to educational leadership (Bolles, 2014; Owings, Kaplan, & Chappell, 2011).

In Owing's extensive research of the Troops to Teachers program and the participates' impact on student achievement, he cites school principals find the veteran teachers "more effective in student discipline and have more positive impact on student achievement than do traditionally prepared teachers of similar experience" (Nunnery et al., 2009, p. 6). This correlates to the veteran teachers' ability to recognize and promote teamwork in the classroom (Hanushek, 2011; Osuch, 2014). Further research of veterans seeking education careers after their service encompasses the leadership skills acquired through their training. These leadership skills transcend into the classroom in the form of establishing classroom norms to displaying attributes of a role model (Nunnery et al., 2009; Shaul, 2001). In urban schools, many students come from various backgrounds and their ability to use personal resources to overcome and learn the curriculum is a determining factor in their success (Bondy, Ross, Gallingane, &Hambacher, 2007). Most male minority students in urban schools will have to overcome some dreadful situations

to reach high school (Cassidy, 2015; Harper, 2015). Without resilience, nor a role model who displays this survival trait, these minority male students will less likely see a purposeful continuation of their academics, resume to fail in school, and perpetuate the dropout rate more than their counterparts who develop some resilience (Blalock, Young, & Kleiman, 2015; Cabus& Witte, 2016; A. Duckworth, 2016).

Encouraging Male Role Models

Troops to Teachers (TTT) is helping to provide the kind of high-quality teaching and role modeling through teacher preparation the underrepresented male student needs in today's classroom environment where 3 out of every 4 teachers is a female and the majority of the teachers are White (Nunnery et al., 2009; Owings, Kaplan, Khrabrova, &Chappell, 2015). The aim of TTT is to support and train military personnel separated from their service seek new careers as public educators in urban settings and keep them there (Mahoney, 2016). A lack of male role models in American educational institutions and organizations has been discussed by various researchers (Kimmel, 2017; Tarrant et al., 2015; Wilson, 2017). Male role models can provide an example of leadership and character education especially if the teacher is of the same ethnicity as the students (Gershenson, Holt, & Papageorge, 2016). The leadership role of teachers is important because teachers are literally at the head of the class and in front of young, impressionable students every day. They are *de facto* role models and must demonstrate positive ethical qualities every day in order to incorporate and display characters of effective leadership. To do this, they must have or develop strong leadership abilities which are displayed as good listeners, effective communicators, be able to motivate/ inspire the importance of achieving common as well as individual goals and be able to

adapt to the various diverse students (Tarrant et al., 2015). Presenting information is one part of teaching; the other part is taking the time to give support to students, make them feel vested in the common goals of the classroom and give them the motivation they need to become critical, independent thinkers (Tough, 2013). Those who are called to teach will logically find it within themselves to be both a leader and an educator (Castro &Bauml, 2009). For male students, no better role model exists outside of the home more than the male teacher (Benne, 2003). If a male teacher lacks the ability to lead and communicate their vision effectively, he may have less impact on students than a teacher who can lead (Mitchell, Kensler, &Tschannen-Moran, 2015). Teachers who can demonstrate good leadership, grit, and utilize positive aspects from their previous career, for example in the military, will be able to impress high levels of resilience upon their students (Cassidy, 2015). This success will feed into their altruistic reasons of becoming a teacher and helping their community (Ballard, 2005; Castro &Bauml, 2009).

Diversity

The ability to successfully work with people from different backgrounds gives the military personnel another attribute applicable to their second careers as teachers. Military personnel share the experience of working with people from various backgrounds as they are grouped together to accomplish the goals of the platoon or group (C. C. Moskos, 1976). In his survey of principals, Owings notes that principals evaluated the veteran teachers a higher score for the ability to collaborate with other teachers and 72.1% strongly agreed these teachers had a positive impact on student achievement (2015). Along with his 2015 update, the majority of participants in the Troops to Teachers program continued to serve underserved schools with high minority

populations, continued to teach high needs subjects such as math, science, and special education, and stayed in the profession longer then their traditionally certified counterparts in schools in need of more minority teacher representation (Owings et al., 2015).

Grit and Resilience

Grit and resilience among the military is associated with several positive outcome due to their ability to withstand harsh conditions and sustained challenges experienced from the first day of Basic Training (Ballard, 2005). On the other hand, for teachers, resilience and grit has been shown to predict a greater level of teacher self-efficacy and intent to stay in the profession. Although resilience and grit are sometimes used interchangeably or overlap in discussions, Angela Lee Duckworth has done some extensive research on grit, and this study will define grit used in Duckworth's work as the quality or characteristic that allows people to continue to pursue goals in a rigorous or rough situation (Duckworth, 2016). In her studies, she developed a Grit scale used to predict military personnel retention and transcended it into a person's intent to stay in their workplace and schools. In this study, the Grit-S scale was administered to teachers.

Resilience is defined by Mansfield, et al, studies in teacher resilience, as a dynamic process in which teachers maintain their commitment to teaching. This study compared the resilience of teachers who served in the military and those who have not. According to the studies and reports of these inner-city schools, the teachers would require some combination of resilience and grit to continue to teach at these "drop-out factories" due to many factors that lead to high teacher attrition rates (Brooks & Goldstein, 2008; Cassidy, 2015). This study focused on the teachers and their qualities

that foster this resilience and grit which has enabled teachers to continue to teach at these hard-to-staff schools or the lack of grit and resilience.

Without losing focus on military veterans' initial career-transitioning phase of becoming a soldier, sailor, or marine, they must learn to adapt into the military life, and prior to receiving an Honorable Discharge, they must be successful in whatever field in the they chose (Eskreis-Winkler et al., 2014). They are then thrust into combat training and harsh physical conditions. These experiences coupled with support and fellowship build on their coping strategies that tend to further their resilience in other career venues (Bondy et al., 2007). The positive experiences, along with internal and external protective factors, developed early in a teachers' career help build resiliency that could be used to sustain a career in teaching (Beltman et al., 2011; Eldridge, 2013). The implication is that teachers who show greater resilience and grit tend to move forward in their education profession compared to those who lack the stated attributes. Teachers who show a higher level of grittiness tend to have greater perseverance and have a positive influence in helping the students attain their goals (Beal, 2014). Therefore, military veteran teachers are likely to show a higher level of perseverance and lower turnover rate compared to non-veteran teachers(Eskreis-Winkler et al., 2014).

Grit allows students and teachers to have long-term success by pursuing goals with consistent interest and effort (Eskreis-Winkler, Duckworth, Shulman, & Beal, 2014). The difference between grit and resilience is that teachers can be gritty without the tumultuous journey, yet resilience is being gritty during difficult situations (A. Duckworth, 2016). In reference to the US's teacher attrition rate, knowledge of criteria and classroom skills are not the biggest issues for teachers on the verge of leaving the

education field—sometimes a lack of grit is the real issue. Students drop out for a variety of reasons but grit, as Perkins-Gough (2013) demonstrated in her study of student achievement and success, is the number one predictor of student success. Tough's (2013) assessment of student achievement also supports this conclusion. In Duckworth's (2009) studies, teachers who display higher levels of grit is the biggest factor that establishes a teacher's success because it is the factor that represents a growth mindset and the ability to engage and to be an active participant in their students learning outcomes (Cabus& Witte, 2016). This gritty attribute is also modeled as the teachers are mindful of the importance of setting long-term goals, they successfully experienced transitioning into and out of the military.

In her extensive and in-depth psychological analysis of positive predictors, Angela Duckworth studied factors that are commonly associated with positive traits that can predict retention and performance of new teachers such as life satisfaction, optimistic explanatory style, and grit (2009). In her 2009 study, grit was a predictor of teacher effectiveness. The grittier teachers stayed longer despite all the obstacles, and they continued to adapt to the ongoing dynamics of teaching in urban schools (A. L. Duckworth et al., 2009; Shaul, 2001). Considering 20 percent of teachers leave the profession the first five years, grit plays a crucial component on what districts look for as effective teachers to fit in the urban schools where attrition rates are higher (Brown &Boser, 2017). This grit has a positive effect on students that other traditional methods of establishing effective teachers cannot, and with the development of the Short Grit Scale (Grit-S), along with studying the effects of grit in schools, grit is a useful predictor of retention in the workplace, marriage and the military (A. Duckworth, 2016; A. L.

Duckworth et al., 2009; Eskreis-Winkler et al., 2014; Robertson-Kraft & Duckworth, 2014). The quantitative statistical studies of military retention and grit indicate grit was a predictor of whether or not the soldiers would drop out. The study, which has an overlap of resilience and grit, further looks at how grit predicts teacher retention, and the study will research veteran teachers who are gritty and how that fosters their ability to sustain a longer education career than their counterparts who have neither the grit nor participated in the military (Eskreis-Winkler et al., 2014).

Resilience and grit are two characteristics and qualities of self-efficacy that are atop Maslow's hierarchy of needs model that serves as the interconnection of motivation theory (Maslow, 1943). Resilience and grit can consequently be measured by determining the individual's needs within the motivation theoretical framework: individuals who demonstrate a need for basic things such as food, shelter, and affection will have less grit and resilience than individuals who demonstrate self-efficacy. Along with the Grit-S scale, Perkins-Gough (2013) measured grit using questionnaires to West Point cadets and to assess it as a predictor of their success. The research showed grit was a better predictor of success in the program than any other variable which further corresponds with the work of Robertson-Kraft and Duckworth (2014) which examine the extent to which teachers' long-term commitment to education was predicted using grit as a factor.

Grit and resiliency in the military is associated with positive outcomes in the general domain, including passion, retention in marriage, high school and workplace (Eskreis-Winkler et al., 2014). In this study, we focus on how these veterans can transcend their successes into the classroom due to a developed sense of grittiness and resiliency. In addition, grit and resilience has been associated with higher perseverance in

military personnel. In a study by Winkler et al., (2014) grit predicted retention, beyond established context specific predictors of retention. On the other hand, Ghandi, Hejeazi and Ghandi (2017) found that resilience is also associated with higher levels of satisfaction among school counsellors.

This study focused on former military personnel who join the teaching profession regardless of their route to certification such as Troops to Teachers or other alternative routes. Given that gritty individuals are more likely to persist through challenges (Blalock, Young, & Kleiman, 2015; A. Duckworth, 2016b) and are willing to demonstrate sustained commitment despite challenges (Blalock et al., 2015), it is expected that military veteran teachers with high levels of grit will have less intention to leave the teaching career. According to the studies and reports of these inner-city schools, the teachers would require some sort of resilience to continue to teach at these drop-out factories (Brooks & Goldstein, 2008; Cassidy, 2015). This study focused on the teachers and their qualities that could foster this resilience that has enabled theses teachers to sustain longevity in the teaching at these urban schools.

In Duckworth's (2009) studies, teachers who display higher levels of grit is the biggest factor that establishes a teacher's success because it is the factor that represents a growth mindset and the ability to engage and to be an active participant in their students learning outcomes (Cabus& Witte, 2016). Teachers quit for lack of support and the lack of adaptability (Koedinger et al., 2015). To examine grit in the classroom, visit a math classroom in the United States and observe how some students give up quickly compared to the ones that will continue despite the challenging curriculum. Character and endurance do not come from curriculum but from people, yet in countries that have a

fixed mindset, students do not learn character and are afraid to fail as students in the US do when the teacher does not promote resilience nor grit (Huang & Moon, 2009; Yeager & Dweck, 2012).

Teachers who are perceived as gritty could have long lasting effects on student outcomes as they have set high goals and have the mindset to persevere as they help students achieve their goals (A. Duckworth, 2016). As Perkins-Gough (2013) notes, "grit predicts success over and beyond talent. When you consider individuals of equal talent, the grittier ones do better" (p. 16). Michael Jordan, the NBA Basketball Legend known for his championship seasons and rigorous work ethic, epitomizes hard work and grit with ads that state, "I can accept failure, everyone fails at something. But I can't accept not trying" (Getoutthebox1, 2011, 0:43). In her extensive and in-depth psychological analysis of positive predictors, Angela Duckworth studied factors that are commonly associated with positive traits that can predict retention and performance of new teachers such as life satisfaction, optimistic explanatory style, and grit (2009). . her 2009 study, grit was a predictor of teacher effectiveness. The grittier teachers stayed longer in spite of all the obstacles, and they continued to adapt to the ongoing dynamics of teaching in urban schools (A. L. Duckworth et al., 2009; Shaul, 2001). Considering 20 percent of teachers leave the profession the first five years, grit plays a crucial component on what districts look for as effective teachers to fit in the urban schools where attrition rates are higher (Brown &Boser, 2017). This grit has a positive effect on students that other traditional methods of establishing effective teachers cannot, and with the development of the Short Grit Scale (Grit-S), along with studying the effects of grit in schools, grit is a useful predictor of retention in the workplace, marriage and the military (A. Duckworth,

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2016; A. L. Duckworth et al., 2009; Eskreis-Winkler et al., 2014; Robertson-Kraft & Duckworth, 2014). The quantitative statistical studies of military retention and grit indicate grit was a predictor of whether the soldiers would drop out. The study, which has an overlap of resilience and grit, further looks at how grit predicts teacher retention, and the study researched veteran teachers who are gritty and how that fosters their ability to sustain a longer education career than their counterparts who have neither the grit nor participated in the military (Eskreis-Winkler et al., 2014).

The experiences of these veterans include two major career transitions- joining the military and adapting to civilian life. A successful transition into the military life involves adjusting to a rigorous physical routine and combat training. They must also be able to acclimate to different geographical changes and organizations while embracing team-building talents. This builds on their resilience as military personnel are exposed in nurturing camaraderie among all their new units (Ahronson A & Cameron JE, 2007; C C Moskos, 1976; Eskreis-Winkler et al., 2014).

These shared experiences throughout all branches of the military begin with Basic Training. The armed forces use initial training programs to initiate their personnel into their branch of service. This includes rigorous training and mental readiness that span from team work to individual growth (Brotz& Wilson, 1946; C C Moskos, 1976). When one person does not meet the expectations, the entire platoon or squad gets punished. This makes group cohesion essential for survival as the group becomes more important than the individual (Moore, 2013). Another part of the training contains a tough course titled, the "Confidence Course," which seems contradictory since no one can completes it the first 100 attempts. Eventually, after countless attempts and team work, everyone

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completes the course, and while reflecting on the individual success, the name of the course makes more sense since feeling confident is inevitable after this feat (C C Moskos, 1976). This newly developed self-efficacy and confidence to accomplish anything transitions into successes as service members are separated into more advanced extensive training and schools (C C Moskos, 1976; Smith, 2016).

Self-efficacy and group-efficacy pair to develop a "shared bond/attraction that drives team members to stay together and want to work together" (Salas, Grossman, Hughes, &Coultas, 2015, p. 355) to accomplish shared goals (Ahronson A & Cameron JE, 2007). The trials and tribulations of these rigorous processes generate a kinship which deepens with every defeat and victory (Carron & Brawley, 2000; Smith, 2016). This camaraderie helps and guides groups comprised of people with no other similar characteristics to develop a common vision and overcome challenging obstacles (Nancarrow et al., 2013). In combat, this trusted bond is essential for survival, and most veterans transition this experience to group collaboration in their second careers post-military. In the traditional public classroom, goals and visions are set forth, but it takes skill and experience to command a room full of children to believe in the importance of the group's common goals set forth in front of them.

Research has also indicated veterans seek other veterans for this camaraderie in college and other organizations for its effectiveness and personal bonds (DiRamio et al., 2008). These veterans have experienced the necessity of group-think and a shared vision to overcome various situations in the military so they seek it from peers and utilize it to implement successful classroom management tactics (Ahronson A & Cameron JE, 2007; Moore, 2013). In the classroom, these veterans use their experiences to develop and

utilize cohesion with students that fosters a safe learning environment in which all students will help each other to reach classroom goals; "taking care of your people"(Bolles, 2014, p. 29). In the classroom, these veterans use these experiences and their pedagogical studies to develop lessons, classroom procedures, and curriculum to motivate students to continue despite the rigor. The accomplishments of demanding activities start with completing small steps and utilizing teamwork. Transferring those experiences and using zone of proximal development theories set forth by Vygotsky along with Bandura's self-efficacy practices, the teacher can transform his/her classroom into a confidence course that will push their students further into their academic careers more often than teachers with no military experience (Cassidy, 2015; Chaiklin, 2003; Pajares, 2003; Vygotsky, 1978).

For the purpose of this study and in line with the research of the Troops to Teachers program, leadership skills from the military will include all positions in which the service members were in a position to lead a group into trainings, duties, and combat situations. (Bolles, 2014; Brotz& Wilson, 1946; C C Moskos, 1976). After guiding squads and platoons through various situations the enlisted learn to adapt to all sorts of situations (Huddleston, 2008). In the classroom, this transitions into a teacher who manages and guides students through various situations required to establish a safe learning environment (Nunnery et al., 2009; Owings et al., 2015). This research will tie those leadership skills to the ability to display grit and resilience to tackle any situation and encouraging further academic achievement beyond the veterans' classroom, in turn lowering the risk of leaving school early. Along with affecting student growth, according to the research on military veterans who become teachers, these teachers are more likely

to stay at their campuses increasing retention rates, lowering training costs, establishing community involvement, and they continue to impact student self-efficacy (Osuch, 2014; Ramsey, 1999; Shaul, 2001). As researchers have noted, leadership is a continuous process of understanding your people, training them, eliciting their participation, inspiring initiative, and making them part of the development procedures (Auerbach, 2009.; Bolles, 2014; Diem & Carpenter, 2012; Kouzes & Posner, 2012).

The need for interdisciplinary team work is increasing as a result of a number of aspects, including the collaboration of professional learning communities and the increase of a diverse staff (Banerjee, 2013; Brown &Boser, 2017; Sandholtz, 2000). By transferring teaching and leadership skills from the military environment to the educational environment, a resilient approach to education can be achieved (Ballard, 2005; Huddleston, 2008; White, 1997). Furthermore, military service veterans are able to apply leadership and organizational skills to campuses that can stimulate the schools to a new level of rigorousness and academic accountability, demonstrating that veterans can improve the campus settings by supporting cohorts and interdisciplinary teams by integrating previously learned skills from their prior careers in the military (Bolles& Patrizio, 2016).

The Impact of Teacher Resilience and Grit in the Classroom

Duckworth et al. (2009) finds that teachers who project qualities of grit and resilience move forward through their education careers more readily than teachers who lack these characteristics. Resilience and grit among teachers have also been shown to predict self-efficacy and higher levels of motivation. In the teaching profession, Robert-Kraft and Duckworth (2014) conducted a study to determine the impact of grit on

retention and effectiveness of beginning teachers using a sample of 461 novice teachers from low income districts. They found that teachers with higher levels of grit performed better than their counterparts and were less likely to leave service mid-year.

Although grit and resilience are not necessarily a part of character development and training in all academic programs, it is important that teachers have both grit and resilience within themselves so that they continue to impact students who lack these qualities and generate a resilient narrative to their academic endeavors (Von Culin, Tsukayama, & Duckworth, 2014), especially in a field that is relentlessly challenging. This grit and resilience would benefit these campuses as teachers found to have high qualities of grit and resilience tend to stay in education longer (Robertson-Kraft & Duckworth, 2014). This study will show that these qualities earned through military training and experience transcend into the classrooms of military veterans who become teachers. Regardless of which subject they teach, grit and resilience continue to support teachers meet the various challenges this career path will take them. Academic growth for both novice teachers and minority students is grounded on the ability of teacher/ student to be gritty and resilient (Perkins-Gough, 2013; Robertson-Kraft & Duckworth, 2014). With this commitment to achieve positive academic successes using enduring motivation and hard work, this type of mindset facilitates academic growth and objectives (Claro, Paunesku, & Dweck, 2016). The long terms effects of resilience and grit are self-determination, self-efficacy, academic success, confidence, social capital, and the accomplishment of academic goals (Blalock et al., 2015; Robertson-Kraft & Duckworth, 2014; Von Culin et al., 2014). This would increase teacher retention and lower budgets used to train new incoming teachers.

Grit and Resilience in Students

Another effect of placing resilient teachers in the classroom is the impact this has on student grit and resilience. As discussed earlier in the importance of role-models, by directing them through cooperative learning, using discipline in the classroom, and educating their character can affect and nurture their own students' grit and resilience (Grusec, Chaparro, Johnston, & Sherman, 2006; Jensen, 2005; Knight, 2008; Kohlberg, 2008; Kristjánsson, 2014). Social supports, such as effective teachers and school staff help to facilitate resilience among students, including notions of self-worth, self-esteem, and self-efficacy (Theron, Liebenberg, & Ungar, 2015).

Self-efficacy, coordination, control, composure and commitment describe qualities that facilitate resilience (Robertson-Kraft & Duckworth, 2014). When these facilitators are not in place or projected, "at-risk" students might not persevere. If resilience is not fostered, through classroom norms, their ability to persevere during a tough curriculum, then "at-risk" becomes "drop out." As Duckworth et al. (2009) point out, grit is not necessarily ingrained before the student steps into the classroom, but if the system of education and social support do not engage and teach resilience, students will not consistently pursue their academics more aptly then those who do gain a culture of resilience and grit. Students must have a model of what resilience and grit look like, so they can emulate it (Brooks & Goldstein, 2008; Theron et al., 2015). The student's projection of resilience will have a positive effect on teacher self-efficacy and their own perception of how resilient they report (Cassidy, 2015; Luzzo, Hasper, Albert, Bibby, & Martinelli Jr, 1999; Robertson-Kraft & Duckworth, 2014). The impact of this study will

hopefully promote districts to challenge their recruiting and retention processes as they try to find more military teachers that could have similar impacts on their campuses.

Research and Implications

Ample research has been conducted on how grit and resilience can shape a student's academic life as well as how grit can facilitate hostile circumstances in an individual's life (Blalock et al., 2015; Cassidy, 2015; Perkins-Gough, 2013; Robertson-Kraft & Duckworth, 2014; Tough, 2013). Grit and resilience have also been great predictors of teacher retention (Castro &Bauml, 2009; Robertson-Kraft & Duckworth, 2014). Gershenson, Holt and Papageorge (2016) have shown that student-teacher demographic match is also important in terms of providing models of behavior, motivation, and character formation. In terms of how male minority students are underrepresented in the classroom by male teachers, or specifically by male teachers who have served in the military and embody qualities such as grit and resilience, no studies have been conducted. If the positive male role model traits are underrepresented in the classroom, this could have a negative effect on the ability of male students to develop the grit and resilience needed to succeed in school and outside of the classroom.

According to the National Center for Education Statistics (2018), 76% of public-school teachers are female, which means male students are considerably underrepresented among faculty in the classroom. As Gershenson et al. (2016) point out, when demographics of student-teacher matches are not well correlated there can be negative fallout—yet as of today there are no studies about this subject in terms of how veterans of the military could provide a positive impact on this issue. The lack of research on how the transfer of teaching and leadership skills to foster resilience and grit from the

military environment by veterans entering the teaching profession could reveal a gap in this area of study: how this transference affects the grit and resilience in underrepresented male students in the classroom is an area of focus that could benefit from research.

Lastly, most studies indicate that although some teachers are more resilient than others, resiliency is not innate (Eldridge, 2013; Friborg, Hjemdal, Rosenvinge, & Martinussen, 2003). If resiliency tends to increase teacher retention at these hard to staff schools, then further research would help figure out how to foster this resiliency in teachers who have less of it and help build positive factors to help their intent to stay (Beltman et al., 2011).

Summary

Resilience and grit are major factors that determine an individual's success in the classroom and in life (Bondy et al., 2007; Brooks & Goldstein, 2008; A. Duckworth, 2016). Grit and resilience have shown, through much research, to be major influences of perseverance (Perkins-Gough, 2013; Robertson-Kraft & Duckworth, 2014). Grit and resilience determine considerable self-efficacy and self-determination that help retention and longevity in different fields including military, teaching, and marriage (A. Duckworth, 2016; Robertson-Kraft & Duckworth, 2014). Military veterans are well-trained in endurance and perseverance as part of their background in difficult physical activities and rigorous mental exercises as they receive hours of on-the-job training in how to control self, adapt, develop character, and commit oneself to the goals and the betterment of their group. In other words, military veterans have developed the qualities of grit and resilience that could be utilized in addressing the nation's drop-out rate by providing longer lasting relationships due to their intention to stay.

In today's schools, 3 out of every 4 teachers are female, which entails male students are underrepresented in the classroom. Because some students who lack role models at home rely upon teachers to be role models and represent examples of qualities needed for future successes, male students are not receiving any examples of grit and resilience from male figures they need to be academically efficacious. As Dewey noted over a century ago, the concerns of classrooms are the concerns of our society, and the difficulties of garnishing their attention should be addressed by challenging and engaging faculty ("Democracy and Education," 2011). The young male students in urban schools have a tough road to graduation and their resiliency is admirable (Brooks & Goldstein, 2008; Yeager & Dweck, 2012). This resilience and determination must be taught and/or nurtured as they progress from difficult classroom settings to the next, while developing their character from schools and their communities. The Troops to Teachers program and other AC Programs were designed to get more male minority teachers in the classroom to alleviate the demographic gap between male minority students and their teachers in urban and underrepresented schools. The Troops to Teachers program was also designed to help military veterans find employment in the civilian sector, complement their good skills to effective meaningful use and retaining military veterans in underrepresented schools that need those particular skill-sets the most. By addressing these facets of our failing urban schools, more veteran teachers should be placed in the classrooms to decrease teacher-turnover costs, or increase grit and resilience in other teachers, and provide these students with invaluable tools of perseverance.

<center>**Chapter 3**</center>

<center>**Methodology**</center>

In research, methodology refers to plans and procedures that span the phases from broad ideas to detailed techniques of data collection, analysis, and interpretation (Fraenkel, 2014). In this chapter, details of how the research study was conducted from start to finish are described, including the methods and procedures to be used. The chapter is divided into several sections. An overview of the study, including the research questions and hypothesis, are provided in the first section. In the second section, the research design used in the study is provided and explained. This is followed by a detailed description of the research participants, setting, the instrument utilized in conducting the research, and the study procedures followed. The chapter also provides a section detailing the method of data collection and analysis.

Overview of the Study

The purpose of this study was to examine the relationship among teacher military service, grit, resilience, and intention to leave their current job. Teacher turnover affects most urban school districts, and this study will focus on veteran teachers and comparable non-veteran teachers that work in schools that have a higher proportion of minority students and the teachers' intent to stay at these schools. To accomplish this, the following are the research questions and hypotheses that guided the study.

Research Questions

1. To what extent are there differences in levels of grit and resilience between teachers with a military background and those without a military background?

<center>55</center>

2. What is the relationship between grit, resilience, and intention to leave among military veteran and non-veteran teachers?

Research Hypotheses

H1: Teachers with a military background have higher levels of grit and resilience as compared to teachers with no military background.

H2: High levels of grit and resilience are associated with lower intent to leave teaching service among teachers.

Setting

The study was conducted in two urban districts, with a focus on middle and high school teachers working in high need and low-income public schools. The first district lies in the outer Houston Metropolitan Area. Texas ISD is composed of 43 campuses and has over 35,348 students. Ninety-two percent of the students are non-white with African American students at 40% and Hispanic students at 46% making up the two largest demographics according to student ethnicity and race. Over 70% of the students are economically disadvantaged and 25% are English Language Learners. With over 2,200 teachers, the teacher demographics are as follows: 39% African American; 21% Hispanic; 35% White; and 3% Asian. The district is composed of 27% Male and 73% Female teachers. The years of experience include 43% of teachers with less than 6 years of experience; 19% with 6-10 years' experience; 29% of teachers with 11-20 years' experience; and 10% of teachers with more than 20 years of experience. The turnover rate of teachers in the district is 24%, with the state average of 17%.

The second campus, Alamo ISD, participated in the survey and sits near the Mexican-US border in South Texas near McAllen. The district is composed of 42

campuses and has over 32,000 students. Ninety-nine percent of the students are Hispanic with less than 1% of the students are African American, Asian, and White. 92% of the students are Economically Disadvantaged and 42% are English Language Learners. With over 2,000 teachers, the teacher demographics are as follows: 94% Hispanic; 4% White and less than 1% are African American and Asian. The district is composed of 31% Male and 69% Female teachers. The years of experience include 29% of teachers with less than 6 years of experience; 21% with 6-10 years' experience; 35% of teachers with 11-20 years' experience; and 14% of teachers with more than 20 years of experience. The turnover rate of teachers in the district is 10%, with the state average of 17%.

The veteran status was self-reported as both district offices did not have access to how many teachers also were prior military service-members. TEA permits both traditional and alternatively certified teachers to teach in K-12 public schools (TTT, 2018). TTT is one of the recognized alternatives credentialed in Texas. There are 1,680,000 veterans in Texas, and According to TTT (2018), the state leads in the number of veteran teachers in the whole nation, with more than 3,000 having entered the TTT program since its inception.

Research Design

A research design, or strategy of inquiry, is the procedure or type of inquiry brought to the study to provide direction (Johnson & Christensen, 2010). According to Mertens (2015), a research design may be a qualitative, quantitative, or mixed type of inquiry and may include experimental or non-experimental (including correlational or causal-comparative) research. This current study followed Salkind's (2010) suggestion and employed a quantitative non-experimental, casual-comparative research design on

the relationship between two types of teachers, their resilience, and the intent to leave. According to Salkind (2010), although experimental research yields more persuasive arguments for causation and generalizations, there are many times when such research cannot, and should not, be carried out. This study cannot attribute causality to teachers' veteran status for their intent to leave the profession because teachers cannot be randomly assigned to be (or not be) veterans (Salkind, 2010).

Although correlational research design would be suitable for this kind of study, it was not selected. This is because such studies focus only on one group of participants, that is, the effect of the independent variables on the outcome variables is examined across a single group of participants; this study focuses on the two distinct populations— teachers who have and have not served in the military (Wallen & Fraenkel, 2013). Causal-comparative research has some limitations, though: it cannot definitively claim a true cause-and-effect relationship between independent and dependent variables. Causal-comparative research, however, may be used to identify variables for experimental research, and study groups are examined in their naturally occurring form (Salkind, 2010). The independent variables in this study is the teachers' resilience and grit, while the dependent variable is the intensity of their intent to stay.

Participants. Participants were recruited from two groups of teachers: military veteran teachers and civilian non-veteran teachers working in underserved, urban middle or high schools from both districts. The aim was to recruit veteran and non-veteran teachers for the study and sort them out after the survey was closed. The veteran teachers included teachers who served in any military branch of service, and this information was self-reported. The non-veteran teachers included civilian teachers from both districts who

have never served in any military branch but teach in the same district and the same school-type. Civilian teachers were further matched to the veteran teachers using propensity score matching (PSM) and demographic variables, including gender, age, and years of experience.

The use of propensity score matching allowed the design and analysis of the study because this research study is a mimic of a randomized controlled trial (Dehejia & Wahba, 2002). In this research study, there were two groups of teachers categorized as a comparison group and an experimental group. One category will be subjected to the treatment, policy, or the intervention through accounting the covariates that show a likelihood of receiving the treatment (Rosenbaum & Rubin, 1985). The PSM technique reduced the bias because there are confounding variables in the estimated effect of the treatment that is obtained by making a comparison between the two teacher groups utilized in this research study. PSM helped reduce the bias by balancing confounding factors between the treatment and group. For the sake of anonymity, no names but unique identities were used in identifying the teachers. After collecting this data, matching was used to counter the threat to internal validity, where all teachers must be from secondary public schools that meet the criteria (Salkind, 2010).

Variables. This section will break down each variable and how they apply to this study. I will discuss the reason for quantitative testing and the measures associated with it along with a description. According to Salkind (2010) and Fraenkel (2014), a variable is a quantitative or qualitative population data item that can be measured or counted, and whose value may vary or change over time. Numeric or quantitative variables can be continuous (a set of real numbers such as the age of teachers) or discrete (a set of distinct

whole numbers such as number of teachers). Categorical or qualitative variables can be ordinal (logically ordered or ranked such as level of education or intention to leave) or nominal (value not capable of logical ordering or ranking such as the gender of teachers or type – military veteran or non-veteran). This study used techniques appropriate for the following independent and dependent variables for each of the research questions.

Independent variables. Fraenkel (2014) defines an independent variable as the predictor or covariate variable whose change is not affected by the dependent variable. The following are e the independent variables for this study.

Teacher type. This independent variable teacher type is operationalized as either a teacher with prior military service participant, that is, veteran teachers teaching in underserved urban secondary public schools in Texas, or non-veteran teachers within the same settings. This is a significant categorical (nominal) independent variable, that cannot be manipulated as the observations to be made, or data collection will assume a value that cannot be organized in a logical sequence (Fraenkel, 2014; Salkind, 2010).

Age and experience. Age and experience were identified as variables that might affect the intent to leave. Age was measured as an ordinal variable. The age and experience in years of teachers was a part of the teacher profile as part of the survey.

Gender. This is one of the categorical variables that has a potential effect on the intensity of teacher and intent to leave. Gender data from the school districts is categorized as either male or female. The option for "other" was incorporated for the purpose of being inclusive.

Race/Ethnicity: The survey also collected the respondents' race. The following are the categories that were used for this variable: African American, Asian/Pacific Islander, Hispanic, Native American, White, and Two or More Races.

Resilience. The research surrounding teacher resiliency determines that this variable is multi-dimensional in that many protective factors characterize some teachers as more resilient than others (Eldridge, 2013). For this study, resilience was measured as a continuous variable, using the definition of teacher resilience as the commitment to stay in the classroom despite all the external and internal challenges teachers face daily (Brunetti, 2006). The scale used to determine resilience intensity was the Teacher Resilience Scale. The Teacher Resilience Scale was established using a combination of scales that measure internal and external protective factors that help or hinder teachers' resilience (Daniilidou & Platsidou, 2018). The two resilience scales, the Connor-Davidson Resilience Scale (CD-RISC Scale, Connor & Davidson, 2003) used to assess internal factors, and the Resilience Scale for Adults (RSA, Friborg, Hjemdal, Rosenvinge, &Martinussen, 2003), used to assess internal and external factors, were used to develop the resilience scale in this study. The scale has 26 questions with four topics: Personal Competencies and Persistence; Spiritual Influences; Family Cohesion; social Skills and Peer Support. Responses are on a five-point Likert scale. The responses are, "Very much like me (1)", "Mostly like me (2)", "Somewhat like me (3)", "Not much like me (4)", and "Not like me at all (5)" (Duckworth & Quinn, 2009).

The Connor-Davidson Resilience Scale (CD-RISC) was designed as a tool to measure the extent to which an individual can overcome adversity. This scale is suitable for this study because it is designed to measure various characteristics of different

populations such as ethnic and cultural groups, teachers (relevant to this study), military medical personnel, students with medical backgrounds, social workers, among many others. The Connor-Davidson Resilience Scale is in two versions: CD-RISC 10 ranging from 0-40 and the CD-RISC 2, which is based on item 1 and 8 of the original 25-item scales. Responses have a range of 0-8. The use of both resilience scales is necessary because while the CD-RISC has adequate internal consistency, test-retest reliability, and convergent and divergent validity in general population, the CD-RISC 10 is one-dimensional and displays good internal consistency, discriminant validity and construct validity (Peng, Zhang, Chen, Zhang, Li, Yu, & Liu, 2014).

Reliability is the measure of the consistency of the instrument in measuring something more than once. It refers to the degree to which the instrument used in a research study will produce stable and consistent results. Validity, on the other hand, is the extent at which the instrument correctly measures the items or elements it is meant to measure. Internal consistency will be measured based on the interrelationships between the different categories on the same experiment. Through internal consistency, it is possible to know if the various categories in the experiment produce similar scores under the same general construct. Test-retest consistency was obtained by repeating a similar test over a period of time to either teacher group. The score obtained from the two tests was then correlated in order to evaluate the stability of the test over time. Inter-rater validity is the extent to which the different raters applied gave consistent estimates for the same behavior. Lastly, predictive validity was used to show the extent to which a score on the criteria was used for the instruments' measures.

Grit. According to O'Neil et al. (2013), grit is the refusal to give up on activities which can range from military, or classroom activity. To measure grit, the Short Grit Scale (Grit-S) proposed by Duckworth and Quinn (2009) was used. This is a self-report instrument designed to measure "perseverance and passion for long-term goals" (Duckworth & Quinn, 2009, p. 174). For the measure of perseverance of effort and consistency of interest in achieving goals, the 8 items of this scale included; "New ideas and projects sometimes distract me from previous ones, setbacks do not discourage me, I have been obsessed with a certain idea for a short time but later lost interest, I am a hard worker, I often set a goal but later choose to pursue a different one, I have difficulty maintaining my focus on projects that take longer to finish, I finish whatever I begin and, I am diligent." The Grit-S has a two-factor structure in line with the theory of grit as a compound trait comprising stamina in dimensions of interest and effort (Duckworth & Quinn, 2009)

Dependent variables. Intention to leave is the dependent variable for the study. In this study, the Turnover intention scale (TIS-6) developed by Bothma and Roodt (2013) was used. The scale was designed to capture employees' feelings during the previous months of their jobs and determine internal and external factors linked with their satisfaction at school. Examples of items in this scale included; 'How often have you considered leaving your job?', 'I feel emotionally drained from my work' and 'How often do you look forward to another day at work?' (Bothma & Roodt, 2013). The instrument used 5-point Likert scale responses: "Extremely Disagree (1)", "Slightly Disagree (2)", "Neither Disagree nor Agree – Neutral (3)", "Slightly Agree (4)" and "Extremely Agree (5)".

Bothma and Roodt (2013) determined the reliability and validity of the 6-item questionnaire instrument by submitting to the first- and second-level factor analyses. The results established that TIS-6 could statistically measure turnover intentions reliably ($\alpha=0.80$). The results also confirmed the instrument's criterion-predictive validity as it satisfactorily distinguished between stayers and leavers, thereby predicting actual turnover (Bothma & Roodt, 2013).

Appendix I is the complete survey with the original 15 questions. The TIS-15 consists of questions 1, 3, 4, 6,7,8. Appendix II is the complete resilience scale with the original 25 questions. The items on the scale measured resilience of the teachers based on the five interrelated aspects including personal competence, acceptance of change and secure relationships, trust/tolerance/strengthening effects of stress, control, and spiritual influences. Appendix III is the Grit-S scale by Duckworth. This scale is an 8-item tool, a short form of the original 12-item Grit-O scale, that is used to determine the perseverance (grit) of a person based on his or her score on the scale. The scale is categorized into two: consistency of interest, and perseverance of effort. According to Duckworth et al., (2009), grit is the nature of an individual to persevere toward long-term goals, and self-control is the inner energy to regulate behavior, emotions and intentional impulses whenever there are gratifying temptations (Duckworth et al., 2009). This research utilized this scale as one of the tools to collect data.

According to Fraenkel (2014), a dependent variable is the outcome variable; that is, the measure or value that is being studied, tested or measured in research. Teachers' intent to leave was measured on the basis of a teacher's (either veteran or non-veteran)

perceived willingness to leave their teaching position through formal resignation or permanent withdrawal. The teachers' intent to leave was, therefore, dichotomous.

Instruments. Several instruments were combined to investigate the relationship between grit and resilience among teachers who are veterans and teachers who are not veterans. In addition to describing each instrument, the validity and reliability of each was described. The *usability* of a research instrument is important and refers to the ease at which it can be administered to participants, interpreted by participants, and scored/analyzed by the researcher (Wallen & Fraenkel, 2013). Fraenkel (2014) posits that usability issues raise validity and reliability concerns (which are next discussed with an outline of each instrument). According to Wallen and Fraenkel (2013) and Fraenkel (2014), *Validity* is the extent to which the constructed or adopted research instrument measures what it is developed to measure and performs according to how it is intended. *Content validity* is the appropriateness of the instrument's content while *external validity* is the extent to which result from the sample can be generalized to the study population.

Reliability is the ability of the instrument to measure that which is was developed to consistently. Reliability is estimated through the degree to which different respondents give consistent responses (*inter-rater reliability*); the consistency of outcome measures over time (*test-retest reliability*); consistency of outcomes across items (*[Cronbach's Alpha] internal consistency reliability*); and consistency of two similarly constructed tests (*parallel-forms reliability*) (Fraenkel, 2014; Mertens, 2015; Salkind, 2010; Wallen & Fraenkel, 2013).

Procedures

The researcher followed the basic outline for causal-comparative research outlined by (Salkind, 2010). The first step included sampling participants. According to Johnson and Christensen (2010), a population refers to all members of the specified study group and their characteristics, and for this study, they include all veteran and non-veteran teachers in Texas secondary public schools who participated in the survey. Johnson and Christensen (2010) define a sample as a part or subset of the population, usually selected because it may not be feasible to study the entire population.

The researcher received permission following laid down procedures from the university and the school district as the research will deal directly with human participants. All IRBs are attached (Appendix IV). Questionnaires were sent out via email to veteran and non-veteran teachers using a email list from the appropriate ISD offices. Demographic information was sought to enable controlling for certain variables such as grade level or socioeconomic status of the participants (Mertens, 2015).

After permission was granted, the researcher recruited the participants who met the criteria for the research study. For purposes of maintaining validity and reliability, the researcher considered the use of purposeful sampling to recruit the participants. The participants selected were a general representation of the whole population. The participants were given the surveys via email and through the use of Google Surveys for which they responded to the questions based on the scales. The surveys or questionnaires were then collected for further analysis of the responses, after which the results were used to do a discussion and make conclusions.

Analysis

In this section, the data analysis plan is described. Both descriptive and inferential statistics was used. Analyses was done using SPSS Version 25. To answer the research questions, multiple linear regression was used. This research is designed to analyze the relationship between the intensity of teachers' intent to leave with the participant's resilience and grit, which are independent variables. In this study, descriptive analyses were used to describe the sample in terms of distribution by demographic variables, including teacher type, age, sex, race/ethnicity, grade/level taught, socioeconomic status, type of school, and years of service. In this study, measures of central tendency, specifically the mean, and measures of variability, specifically standard deviation, was used to describe the sample. To help interpret and understand descriptive data, appropriate graphs, tables, and general discussions was used (Fraenkel, 2014).

Inferential statistics. Inferential analyses were used to test the relationship between the independent (teacher type, resilience, grit) and dependent (intention to leave) variables, and to draw conclusions about the population of veteran teachers based on the sampled participants' resilience, grit, and intentions to leave (Wallen & Fraenkel, 2013).

Research question 1. Research question 1, which asks, "To what extent are there differences in levels of grit and resilience between teachers with a military background and those without such a background?" was analyzed using Independent samples t test. The t test helped determine whether there were any statistically significant differences between average levels of resilience and grit between veteran and non-veteran teachers (Salkind, 2010).

Research question 2. This research question, which asks, "What is the relationship between grit, resilience and the intention to leave a teaching position among military veteran and non-veteran teachers?" was analyzed using multiple linear regression. The question was addressed by using the independent variables (grit, resilience, and teacher type) to predict the outcome variable, which is an intention to leave. This involved feeding obtained data from the study group into SPSS to find out how the predictor variables relate to the criterion variable (Lowry, 2014). Demographic variables such as age, race and ethnicity were used in determining the possible existence of differences within the groups. The general equation for multiple linear regression that was used is as below:

In order to include all the variables in the study, I used multiple linear regression to estimate the effect of veteran status, grit, and resilience to test the hypotheses. The prediction that a teacher's intention to leave is given by the formula:

$$Y = \alpha_i + \beta_{2i}(D) + \beta_{3i}(TT) + \beta_{3i}(ST) + \beta_{4i}(R) + \beta_{5i}(G) + \varepsilon_i$$

$$\pi_i = {}_{Pr}(Y_i = 1 | X_i = x_i)$$

Where: D represents participant *demographics*,

TT represents *teacher type*;

ST represents *school type*;

R represents resilience, and

G represents *grit*.

The above formula is essential in this study because it factors in all the variables used in the study. Y, the dependent variable, is teachers' intention to leave score. β_2, β_3, β_4, and β_5

are the measure the effects on teachers' intent to leave of a one-unit change in teachers'

demographics, teacher type, school type, resilience, and grit variables respectively.

Table 1

Inferential statistics

Research Question	Analysis	Explanation
To what extent are there differences in levels of grit and resilience between teachers with a military background and those without such a background? **H$_1$:** Teachers with a military background have higher levels of grit and resilience as compared to teachers with no military background	Independent samples *t*-test	This test will help determine whether there are any statistically significant differences between the mean scores in, first resilience, and second grit, of the two groups, namely, veteran and non-veteran teachers – to determine whether military experience has a significant impact on teachers' resilience and grit (Salkind, 2010). The question will be answered using ANOVA (F) analysis of teachers' military background variables, by comparing the mean (M) and standard deviations (SD) for grit and resilience of the two categories of teachers, using p=0.05 as the level of significance (Kaya & Argon, 2018).
What is the relationship between grit, resilience, and intention to leave among military veteran and non-veteran teachers? **H$_2$:** High levels of grit and resilience are associated with lower intent to leave	multiple linear regression	The question will be addressed by using the independent variables (grit, resilience, and teacher type) to predict the outcome variable, which is an intention to leave. This will involve feeding obtained data from the study group into SPSS to find out how the predictor variables relate to the criterion

| teaching service among military veteran teachers. | | variable if they are significant (Lowry, 2014). |

Conclusion

In conclusion, the methodology section of this research study is a detailed description of the procedures and the techniques the researcher intended to use to answer the research questions. The methodologies applied are under the larger umbrella of quantitative research designs. Quantitative research design was chosen as the most appropriate approach in the collection and analysis of the data which was exploratory and descriptive. The Turnover Intention, the Grit-S, and the Resilience Scales was administered to the participants who were teachers and veteran teachers. The responses were analyzed using various data analysis methodologies in an attempt to answer the research questions: To what extent are there differences in levels of grit and resilience between teachers with a military background and those without a military background and what is the relationship between grit, resilience, and intention to leave among military veteran and non-veteran teachers?

Chapter 4

Results

The purpose of this study was to examine the relationship between teachers' grit, resilience and the intention to leave their current job among military veteran teachers serving underserved campuses and non-military teachers teaching in similar types of school. The results of descriptive and inferential analyses are presented in this chapter. Results for reliability analysis of the survey instruments are first presented, followed by the descriptive statistics. Then, findings from the inferential analyses, which answer the research questions, are presented.

Reliability tests

The reliability of the three survey questionnaire scales items used to collect data was measured. Reliability, which was measured using Cronbach's alpha, denotes the consistency or stability of a measurement instrument. According to Mertens (2015), Cronbach's alpha values of 0.6-0.7 indicates an acceptable level of reliability, while the alpha value of 0.8 or greater indicates a very good level of reliability. Table 2 summarizes the Cronbach's alpha values for the three survey scales used in this study. The alpha value for the 15 turnover survey items was .8706, while the values for the 26 resilience survey items was .8261, and that of the 8 grit survey items was .8204. Since the values are more than 0.8, the three survey scales had high reliability.

Table 2

The results of reliability analysis

Constructs	Cronbach's Alpha
Turnover intention	0.8706
Teacher resilience	0.8261
Grit	0.8204

Descriptive Analysis

Table 3 presents participants' demographic data. Out of the 440 participants who consented to participate in the study, 48.3% were female, 47.1% male, and 4.5% preferred not to say. Majority (36.6%) were White, 31.5% Hispanic, and 28.9% African American. In terms of age, 47.1% fell into age group 40-49, 33.9% were within 30.39, and 10.2% aged 18-29 years.

Table 3

Participant demographic characteristics

Characteristic	n = 440	Frequency (%)
Race ethnicity		
White	161	36.6
African-American	125	28.9
Hispanic	138	31.5
Age		
18-29	44	10.2
30-39	149	33.9
40-49	207	47.1
>50	40	9.8
Gender		
Male	207	47.1
Female	213	48.3
Prefer not to say	20	4.5
Teaching experience		
0-9	82	18.6
10-19	183	41.6

20-29	127	28.9
>35	48	10.9
School Labeled Tittle I		
Yes	319	72.5
No	108	24.5
Maybe	34	7.7
Grades		
Elementary	60	13.6
Middle/Junior	18	4.1
High School	379	86.3
Teacher type		
Veteran	162	36.8
Non-veteran	278	63.2

Most teachers (41.6%) had a teaching experience of between 10-19 years, 28.9%

had experience of between 20-29 years, and 18.6% had experience of up to 9 years.

Results showed that 83.6% taught in high school, 13.6% taught in elementary school, and

4.1% in middle or junior school. Most teachers 63.2% were non-veterans while 36.8%

were veteran teachers. Based on these demographic variables, it can be noted that the

participants had relevant experience and knowledge to help in answering the formulated

research questions.

Table 4 shows t-test results for demographic variables. Findings revealed that

there was no significant different between variables such as race or ethnicity, age, gender,

grades, and school Labeled Tittle I. However, there was a significant difference between

teacher experience and teacher type. The level of experience among teachers with

military background was higher (M = 4.78, SD = 1.3) compared to the level of

experience among non-veteran teachers (M = 2.17, SD = 1.88), with test results being

t(13) = 3.12, p = .042. Moreover, there was a significant difference between teacher type

with veterans having a mean of (M = 3.82, SD = 2.7) compared to the level of experience

among non-veteran teachers (M = 2.61, SD = 2.71), with test results being t(17) = 2.81, p

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= .019. The effect size for the level of experience was 0.6 and that of teacher type was

0.7, showing that the differences between veterans and non-veterans on these two

variables was important.

Table 4

t-test results for demographic variables

Variable	M	t	P	Cohen's d
Race ethnicity				
White	3. 19	2. 393		
African-American	3. 37			0.2
Hispanic	3.82			
Age				
18-29	3. 53	4. 462		
30-39	3. 03			0.3
40-49	4.28			
>50	2.92			
Gender				
Male	8. 37	3. 526		0.4
Female	7. 18			
Prefer not to say				
Teaching experience			0.042*	
0-9	3. 91			0.6
10-19	3. 70	3.12		
20-29	3.28			
>35	2.83			
School Labeled Tittle I				
Yes	3. 63	1. 838		0.2
No	4. 30			
Maybe	1.27			
Grades				0.3
Elementary	2.83	2.83		
Middle/Junior	3.94			
High School	3.82			
Teacher type			0.019	0.7
Veteran	3.82	2.81		
Non-veteran	2.69			

There were no missing data from the collected survey responses. Descriptive

statistics for the three survey questionnaire scales (turnover intention scale, teacher

resilience, and Grit-S scale) are presented in this section. Table 5 presents results for

turnover intention scale (TIS), focusing on the means (M) and standard deviations (SD) of the veterans' and nonveterans' responses. A two-tailed *t* test was performed to check whether the score of the two groups (veterans and non-veterans) differed on average turnover intention. Then the 15 TIS items were measured as an average, or a scale. Results reveal that of the 15 TIS items, there were statistically significant differences in the means of nine TIS items (p < 0.05).

Table 5

T-test analysis of the 15 variables on the turnover intent scale

Survey variables	Veterans		Non-veterans			*p*-values
	M	*SD*	*M*	*SD*	*Effect Size*	
1 Variable 3- How satisfying is your job in fulfilling your personal needs?	2.23	0.73	3.39	1.13	0.92	.044
2 Variable 4- How often are you frustrated when not given the opportunity at work to achieve your personal work-related goals?	2.23	1.05	3.53	1.09	0.79	.032
3 Variable 6- How often do you dream about getting another job that will better suit your personal needs?	2.08	1.01	3.49	1.14	0.81	.024
4 Variable 8- How often do you look forward to another day at work?	2.06	1.00	3.51	1.32	0.72	.011
5 Variable 9-How often do you think about starting your own business?	2.01	0.94	3.37	1.36	0.72	.021
6 Variable 10- To what extent do responsibilities prevent you from quitting your job?	2.22	1.29	3.78	1.43	0.91	.001

7	Variable 12- How frequently are you emotionally agitated when arriving home after work?	2.15	1.01	3.65	1.33	0.82	.028
8	Variable 14- To what extent does the "fear of the unknown," prevent you from quitting?	2.12	1.12	3.67	1.43	0.92	.002
9	Variable 15- How frequently do you scan the internet in search of alternative job opportunities?	1.79	0.98	3.14	1.32	0.89	.042

Based on Table 4, the effect size for the 9 out of the 15 TIS variables was large implying the difference between veteran and non-veteran teachers was important. In terms of job importance in satisfying personal needs the effect size was 0.92. With regard to feelings of frustration when not given the opportunity at work to achieve your personal work-related goals the effect size was 0.79. The effect size for individual dream about getting another job that will better suit their personal needs was (0.81). The effect size of 0.72 was reported on variable 8 and 9 that were related to looking forward to another day at work and contemplating stating another job, respectively. The other TIS variables 10, 12, 14, and 15 had an effect size ranging from 0.82 to 0.92 as shown in Table 3, further emphasizing that the differences were important. For instance, important observations from the TIS scale reveal that non-veteran teachers are more likely to consider leaving their teaching jobs, undertake regular newspaper reviews in search for alternative job opportunities, and are less likely to consider their job as fulfilling their personal needs when compared to veteran teachers. Moreover, non-veteran teachers report being more frustrated when not allowed to achieve their personal goals than veteran teachers. In summation, there is a significant difference in the turnover intention expressed by veteran and non-veteran teachers at these schools.

The second survey construct was based on the teacher resilience scale (TRS). Out of the 26 items in the TRS, only 10 items showed a significant difference between the means of two groups. Table 6 summarizes the important TRS items that showed a significant difference in means between veteran teachers and non-veteran teachers (p< 0.05).

Table 6

Veteran and Non-veteran responses to the Teacher Resilience Scale

	Survey variables	Veterans		Non-veterans			
		M	*SD*	*M*	*SD*	*Effect Size*	*p-*values
1	Variable 1- I am able to adapt to change	2.92	1.31	4.30	0.81	1.23	.011
2	Variable 2- Sometimes fate or God can help me overcome my challenges	3.82	0.86	3.98	1.01	0.92	.023
3	Variable 3- Sometimes I believe things happen for a reason	3.82	0.77	4.29	0.67	0.82	.012
4	Variable 4- Under pressure, I am able to focus and think clearly.	3.52	1.14	4.27	0.72	0.77	.023
5	Variable 7- I Think of myself as strong person	3.72	1.10	4.27	072	0.88	.017
6	Variable 8- If necessary, I can make unpopular or difficult	3.46	1.04	4.32	0.66	1.12	.018

	decisions that affect other people						
7	Variable 9- I can handle unpleasant feelings, such us anger or fear	3.43	1.12	4.47	0.61	0.77	.021
8	Variable 10- Sometimes I have to act on a hunch	2.78	1.07	3.92	0.84	0.72	.011
9	Variable 14- New friendships are something I make easily in my workplace	3.73	0.91	4.34	0.74	0.92	.015
10	Variable 23- I can discuss personal issues with my peers	3.12	1.46	3.90	1.05	0.81	.026

Based on Table 6, the effect sizes for ten TRS variables were large, indicating that the differences were practically important. For example, the effect size for variables 1 and 2 in terms of *being able to adapt to change* and *fate or God helping teachers overcome many challenges* was 0.81 and 0.86, respectively. For the other eight variables as shown in Table 4, the effect size ranged from 0.72 for *sometimes I have to act on a hunch* to the effect size of 1.12. for *making unpopular or difficult decisions that affect other people*. These TRS variables included Variables 1, 2, 3, 4, 7, 8, 9, 10, 14, and 23 and they are detailed in Appendix 2. Results show that non-veteran teachers were less likely to adapt to change compared to veteran teachers. Moreover, non-veteran teachers felt fate was less likely to help them overcome challenges, they are less likely to believe that things happen for a reason, and are not able to focus and think clearly when under pressure like veteran teachers. Other important observations include that non-veteran

teachers have lower perceptions of themselves think of themselves as strong in their

career, are less likely to make difficult or unpopular decisions and are not able to handle

unpleasant feelings such as fear or anger as well as the veteran teachers. Finally, results

also indicated that at high rates non-veteran teachers act on a hunch, are not likely to

make new friendships at the workplace, and are less likely to discuss personal issues with

their peers relative to veteran teachers.

Finally, Table 7 summarizes descriptive findings from veteran and non-veteran

teacher responses based on the 8-item grit scale. Results from t-test analysis revealed that

out of the 8-items on the grit scale, four of them showed statistically significant

differences in means between responses by veteran teachers and non-veteran teachers (p

< 0.05). The four grit items included Variable 3, 5, 6, and 7.

Table 7

Veteran and Non-veteran responses to the Grit Scale

	Variables	Veterans		Non-veterans			p-values
		M	*SD*	*M*	*SD*	*Effect sizes*	
1	Variable 3- I have been obsessed with a certain idea or project for a short time but later lost interest	2.94	.81	3.01	1.82	0.72	.001
3	Variable 5- I often set a goal and later pursue a different one.	2.68	1.91	3.02	1.73	0.83	.037

4	Variable 6- I have difficulty maintaining my focus on projects that take more than a few months to complete	3.75	.99	4.09	2.81	1.18	.003
5	Variable 7- I finish whatever I begin	3.55	.82	4.56	1.38	0.89	.046

Based on the results presented in Table 7, it is evident that non-veterans have lower grit than veterans. For instance, non-veteran teachers are more likely to lose interest in pursuing an idea. Also, non-veterans noted that they often set goals and later pursue a different one. They also report experiencing more difficulty maintaining their focus on projects that take months to complete. Finally, compared to veteran teachers, results revealed that non-veteran teachers are less likely to finish what they start. In summation, these findings reveal that veteran teachers in underserved Texas schools have higher grit for long-term and meaningful goals when compared to non-veteran teachers in Texas.

RQ 1: Differences in Levels of Grit and Resilience

Research Question 1 asked, *To what extent are there differences in levels of grit and resilience between teachers with a military background and those without such a background*? An independent samples *t* test was performed to answer the question. Whole scales were used in this analysis instead of using individual items. As applies to this study, the t-test analysis was based on the following assumptions: that the data is independent, that variances are equal, and that the dependent variable is normally distributed. Based on these assumptions, results showed that the average grit for veteran teachers was normally distributed with skewness of 1.72 (SE = 0.04) and kurtosis of 1.92

(SE = 0.05). By contrast, the mean grit for non-veterans was also normally distributed with skewness of 1.33 (SE = 0.03) and kurtosis of 1.43 (SE = 0.04. An F-test of two-sample for variances was also performed to test the null hypothesis that two samples come from two independent populations having equal variances. The calculated F-value was 3.125 which was larger than the F critical value of 1.955. Therefore, the null hypothesis that the variances for the two samples are equal was rejected. Underwriting these considerations, it was evident that the data was independent, variances are equal, and dependent variables normally distributed. A t-test for resilience and grit for both veteran and non-veteran teachers was then performed.

First, a t-test for resilience was performed. The results reveal that the level of resilience among teachers with non-military background was significantly lower (M = 2.72, SD = 1.5) compared to higher resilience among teachers without military background (M = 4.72, SD = 2.78), with test results being $t(17) = 4.3$, $p = .008$. Thus, teachers with military background had better resilience than teachers without military background. Since the effect size of the difference is 0.84, it can be noted that the null hypothesis which states there is no difference in the level of resilience between veteran is rejected and the alternative hypothesis confirmed.

Second, a t-test for grit was performed. An F-test two-sample for variances was performed to test the null hypothesis that two samples come from two independent populations having equal variances. The calculated F value was 0.6192 which is larger than the F critical value of 0.2645. Thus, the null hypothesis that the variances for the two samples are equal was rejected. Data on grit was normally distributed with the average grit among veteran teachers being 2.92 (SD = 1.62), skewness of 1.29 (SE = 0.01) and

kurtosis of 1.78 (SE = 0.04). Further, grit was normally distributed among non-veteran teachers with skewness of 1.73 (SE = 0.04) and kurtosis of 1.63 (SE = 0.05), where the average grit for non-veterans was 3.62 (SD = 2.53). The results reveals that the level of grit for teachers with military background was higher (M = 1.17, SD = 1.21) compared to that of teachers without military background (M = 3.51, SD = 1.87), with t-test results being $t(33) = 3.8$, $p = .0087$. Since the p-value is smaller than the alpha, 0.05, the null hypothesis is rejected and we can conclude that there is a significant difference in the level of grit between the veteran and non-veteran teachers.

RQ 2: Relationship Between Grit, Resilience, and Intention to Leave Teaching

Research Question 2 investigates the following: *What is the relationship between grit, resilience and the intention to leave a teaching position among military veteran and non-veteran teachers*? Multiple linear regression was used to answer the second research question where *grit*, *resilience*, and *teacher type* were measured as scales and considered independent variables, while the *intention to leave* was the outcome variable. The first assumption for the analysis was that both groups of teachers were independent samples. The assumption that they were independent samples was associated with the survey approach to ask for the same questions regardless of their backgrounds. The second assumption for the dependent variable held that the participants' responses on the independent variables grit, resilience, and teacher type were normally distributed. The Mean for veteran teachers was 3.27 (SD = 1.89) with skewness of 1.98 (SE = 0.04) and kurtosis of 1.88 (SE = 0.03). The mean for non-veteran responses was 5.74 (SD = 2.82) with skewness of 1.67 (SE = 0.02) and kurtosis of 1.81 (SE = 0.05).

Table 8 presents the correlation results between dependent variable *intention to leave*, and independent variables resilience, grit, and teacher type. Results show that the correlation between the dependent and independent variables was significant and positive. In line with Pearson's correlation, values of between 1 and 0.3 are small, 0.3-05 are considered medium, while 0.5-1.0 are considered to be large correlations. In this study, results revealed that there is a small but significant positive correlation between grit and teacher type (r = 0.369, p < 0.05).

Table 8

Correlation analysis between dependent and independent variables.

Variables	Intention to leave	Resilience	Grit
Intention to leave	1	.693**	.672**
Resilience		1	.760**
Grit			1

** $p \leq 0.05$

Based on Table 7, the correlation results also show a small but significant positive correlation between resilience and teacher type (r = 0.373, p < 0.05), but a large positive significant correlation between resilience and grit (r = 0.760, p < 0.05). The results also reveal a large significant positive correlation between grit and intention to leave (r = 0.672, p < 0.05), also between intention to leave and resilience (r = 0.693, p < 0.05).

Regression analysis was conducted to examine whether there is a relationship between intention to leave (dependent variable) and resilience, grit, and teacher type (independent variables), while age, gender, race/ethnicity, and experience were control variables. That is, the focus of the regression analysis was to determine whether it is

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possible to predict intention to leave based on information about resilience, grit, and teacher type. Table 9 presents the regression results where $R^2 = 0.947$, which is a very good fit. That is, 95% of variation in intention to quit is explained by the independent variables in this study which were resilience, grit, and teacher type. The value for significance F was 0.01603 which is less than 0.05 level of significance, indicating that the regression results are reliable or statistically significant. Regression findings reveal that for every one point increase in resilience, we can expect a .754 decrease in their intention to leave, all else equal. Also, for every one point increase in grit, we can expect a .558 decrease in their intention to leave, all else equal.

Table 9

Regression analysis between dependent and independent variables.

Multiple R	0.974138
R Square	0.9471232
Adjusted R Square	0.929147
Standard Error	217.48132

ANOVA

	df	SS	MS	F	Significance F
Regression	3	1704.768	568.2561	1.859499	0.01603
Residual	27	8251.103	305.5964		
Total	30	9955.871			

	Coeffi-cients	Standard Error	t Stat	P-value
Intercept	218.43606	75.32011	1.20339	0.001392
Resilience	-0.75472	0.169362	2.094452	0.045738
Grit	-0.55819	0.145808	0.39915	0.009289

The regression results in Table 9 show that there is a negative relationship between intention to leave and teacher resilience and grit. That is, high intention to leave teaching is associated with low levels of resilience and grit, so we can reject the null

hypothesis that there is no relationship between intent to leave and resilience and grit. Further, regression findings indicate that the higher intention to stay in teaching among veterans compared to non-veteran teachers is associated with higher resilience and grit. The findings further confirm the hypothesis that teaches who have military background are less likely to leave the teaching profession compared to teachers without military background.

Conclusion

The results chapter has presented findings obtained from the survey interviews with veteran and non-veteran teachers. Reliability tests revealed alpha values of more than 0.8 indicating the suitability of the survey scales in collecting appropriate data. Descriptive statistics and inferential statistics confirm that teachers who have a military background have higher levels of grit and resilience than teachers with no military background. Moreover, the obtained results reveal that high levels of grit and resilience among teachers are associated with lower intent to leave the teaching service. However, teachers who have a military background tend to show high grit and resilience than teachers without a military background, thereby implying that there are lower attrition levels among veteran teachers than in non-veteran teachers. The next chapter discusses the obtained survey findings in light of past literature publications and the formulated research questions and research hypotheses.

Chapter 5

Discussion

The purpose of this study was to examine the relationship between teachers' grit, resilience and the intention to leave their current job among military veteran teachers serving low-income districts and non-military teachers teaching in the same schools. In the current discussion chapter, the focus is to discuss the obtained results in the light of the formulated research questions and hypotheses and past literature publications on the topic. Further, the discussion presents potential implications for this study in terms of how grit and resilience might be developed in teachers. Limitations of this study are outlined in addition to recommendations for future research.

Teacher Differences in the Levels of Grit and Resilience

Research Question 1 was formulated to examine the extent into which there are differences in levels of grit and resilience between teachers with a military background and those teachers without such background. Survey results were obtained from veteran and non-veteran teachers in Texas who are currently teaching in secondary public schools. Findings showed that these teachers in Texas with a military background have significantly higher levels of grit and resilience as compared to teachers with no military background. For example, based on the turnover intention scale, teachers with no military background were less satisfied with their jobs and they noted that their current jobs fail to help them fulfil their personal needs. Compared to veteran teachers in Texas secondary public schools, non-veteran teachers also reported being more frustrated when not given the opportunity at work to achieve your personal work-related goals. These findings echo recent observations by Shields (2020) on teacher resilience in Central Virginia.

According to Shields, veteran teachers are more resilient and less likely to be frustrated based on their prior military experience working in challenging environments. Moreover, unlike non-veteran teachers, veteran teachers aspire to become proactive in creating goals and approaches to achieve personal goals and, in the process, are less likely to report being frustrated at the workplace (Shields, 2020).

Unlike veteran teachers, who are largely contented with their current jobs, non-veteran teachers also reveal that they often dream about getting another job to suit their personal needs. Due to this low job resilience, non-veteran teachers are less likely to be enthusiastic about looking forward to another day at work. As a result, non-veteran teachers tend to think about starting an alternative job, such as starting their own business. Georgoulas-Sherry (2018) explained that following their experience in combat-like environments, veteran teachers appear to be more resilient and have passion in their work than regular teachers. Working through tough environments tend to psychologically and emotionally prepare military teachers better in adapting to the civilian working environment (Georgoulas-Sherry, 2018). These observations might explain why veteran teachers are less likely to seek for alternative jobs or start their own business since they are well-positioned to make the best out of difficult working conditions than non-veteran teachers (Georgoulas-Sherry, 2018; Shields, 2020).

Findings from this study reveals that not only is there a difference between veteran and non-veteran teachers, but the item analysis points to some of the reasons why vets have higher resilience and grit. The findings from the TIS indicated that, to a large extent, regular teachers tend to note that school responsibilities and workload inform their intent to quit teaching. What is more, the increased workload might be associated with

emotional agitation and "fear of the unknown", which could weaken their decision to continue teaching. These findings are further supported by survey responses in that non-veteran teachers tend to frequently scan the internet in search of alternative job opportunities than veteran teachers. Carrillo and Flores (2018) shared that the nature of veteran identity is founded on resilience and perseverance and this might explain why they are less likely to quit their current teaching jobs than regular teachers with no military background. The findings also echo work by Lowe et al. (2019) who explored resilience among veteran teachers in schools and noted that there is a high sense of obligation and accountability among newly enrolled teachers with military background compared to novice pre-service teachers.

Results from the TRS also revealed that veteran teachers tend to be more resilient in their workplaces than non-veteran teachers. Some of the important issues that were identified from the survey related to the fact that in the event of new changes within their schools, non-veteran teachers tend to have problems adapting to changes. What is more, teachers who lack military background are less likely to be optimistic about overcoming future challenges and also express less resilience when working under pressure. Similar to past research findings by Lowe et al. (2019) and other researchers such as Georgoulas-Sherry (2018) and Shields (2020), lack of resilience among non-veteran teachers might be related to the past working environment between veteran and non-veteran teachers. One explanation for this could be that access to the past challenging environment may have nurtured veteran teachers to adapt to uncertain and rapid changes, remain optimistic in difficult situations, and ability to work under pressure (Lowe et al., 2019). The survey findings also echo observations by Carrillo and Flores (2018), who noted that veteran

teachers highly regard themselves as being strong in their careers and can make challenging decisions, while managing unpleasant feelings such as fear or anger. While non-veteran teachers are likely to act on emotions, veteran teachers evaluate situations even when under pressure to make informed choices (Georgoulas-Sherry, 2018).

Finally, the study assessed the grit level among veteran and non-veteran teachers in Texas secondary schools. Results revealed that regular teachers lack grit in terms of passion and perseverance especially for long-term and meaningful goals compared to their counterparts. Carrillo and Flores (2018) noted that veteran teachers tend to persist and express passionate about and persevere when they encounter obstacles. Georgoulas-Sherry (2018) added that the passion that results from grit is not limited to infatuation or intense emotions, but about having a sense of direction and commitment. These past literature insights align with the survey findings between veteran teachers and non-veteran teacher in Texas public schools. Findings showed that teachers who lack military background tend to have a certain idea, but later lose interest in pursuing the idea. Non-veteran teachers were more likely than veteran teachers to create goals and later pursue different ones implying that they had difficulties maintaining their focus on projects that take a few months to complete. As such, these observations align with findings by Carrillo and Flores (2018) in that non-veteran teachers are less likely to follow through and complete their initial objectives, further emphasizing their low grit. Observation made from the TIS, TRS, and Grit-S confirms the first research hypothesis that Texas secondary teachers who have a military background have higher levels of grit and resilience compared to teachers with no military background.

The Relationship Between Grit, Resilience and the Intention to Leave

Research Question 2 was formulated to investigate the relationship between grit, resilience and the intention to leave a teaching position among military veteran and non-veteran teachers. These insights align with literature findings by Carrillo and Flores (2018) who noted that teachers who have military background tend to have high grit compared to regular teachers. As such, it can be noted that there is a positive relationship that exists between individual teacher background skills and the level of grit displayed when solving day to day commitments at the workplace.

A positive relationship was also observed between resilience and teacher type, providing additional evidence that individual background experience differentiates the level of resilience teachers are likely to display. As initially pointed out, Shields (2020) found that veteran teachers in Virginia were more resilient and less frustrated in their work because of their previous military experience of working within difficult conditions. Similar observations were made by Prout et al. (2019), who investigated the impact that passion and enthusiasm have on the veteran teachers' commitment in their work. Their results revealed that having a history of creating strong social connections enables veteran teachers to seek for support from colleagues and peers and in the process become more resilient during challenging situations (Prout et al., 2019). In light of these considerations, non-veteran teachers may be less resilient because they lack support or assistance when they experience emotional problems or when they are exposed to a stressful environment. These aspects might help explain the observed relationship between teacher type and resilience.

Resilience and grit were found to have a positive significant relationship indicating their close association (Prout et al., 2019). As noted by Admiraal et al. (2019), grit and resilience among veteran teachers are associated with several positive outcomes due to their ability to withstand harsh conditions and sustained challenges experienced in their military service. A different perspective, however, is common among teachers who lack military background where they lack similar resilience and grit. Non-veteran teachers are less likely than veteran teachers to display resilience and in the process lack grit when committing to long-term goals. On the one hand, veterans are more resilient because they may be able to adapt to changes and make quick or appropriate decisions during difficulties than non-veteran teachers. One the other hand, veteran teachers may show more grit than non-veteran teachers because when they embark on a goal they persist until they have achieved the set objectives. Observations from the survey findings revealed that non-veteran teachers are more likely to fail to execute their goals or leave their initial objectives for alternative ones.

These trends might be attributed to the fact that they consider their current jobs less supportive in achieving their daily needs and are, therefore, more likely to seek for alternative jobs (Shields, 2020). When face with such challenging situations at the workplace, non-veteran teachers tend to express their intention to quit. Lowe et al. (2019) showed that veteran teachers are more likely to be persistent and persevere in their careers as opposed to dropping out. Based on these insights, therefore, it can be noted that teacher type is directly related to the intention to leave the teaching professions. That is, there is a high possibility of high attrition rates among teachers who do not have a

military background compared to the attrition rate among teachers who have a military background.

When considered individually, the results indicated that there is a strong positive relationship between grit and intention to leave, and also between resilience and intention to leave. As initially pointed out in the literature, grit allows students and teachers to have long-term success by pursuing goals with consistent interest and effort (Admiraal et al., 2019; Eskreis-Winkler et al., 2014). However, the results from this study revealed that non-veteran teachers often lack consistency and efforts when pursuing their goals, considering they either abandon their initial plans or change them to different plans. Thus, the nature that is associated with the lack of a common ground towards goals among non-veteran teachers makes it difficult to display strong grit at the workplace, resulting in subsequent intentions to leave their teaching profession. Duckworth (2009) shared that teachers who display higher levels of grit tend to display high levels of success because it is the factor that represents a growth mindset and the ability to engage. Grit also contributes to individual character development in terms of being principled to personal aspirations and career demands (Cabus& Witte, 2016). For these reasons, veterans tend to display high grit and character development in terms of job commitment and problem resolution to stay at their current workplaces than teachers who lack military background (Admiraal et al., 2019).

Similar to grit, teacher resilience was also found to have a positive relationship with the intention to leave the current teaching job. Being resilient is characterized by coming back stronger after undergoing diversities and negative life or work experiences. Lowe et al. (2019) added that after undergoing difficulties, failures, or traumatic events,

resilient teachers do not fall short of their resolve. However, resilience enables the teachers to find a way to emotionally health, change course, and continue moving towards their set goals (Shields, 2020). The mean values obtained from the TRS showed that non-veteran teachers expressed less persistence when they experience difficult situations compared to veteran teachers. The low resilience among non-veteran teachers explains the high likelihood of attrition than in teachers who have background military experience. For example, non-veteran teachers were less likely to adapt to change and this implies that they are more likely to express their intention to leave. Veteran teachers were more likely than non-veteran teachers to face and resolve daily challenges at the workplace, in addition to being focused than non-veteran teachers, further emphasizing the strong reason for non-veteran tutors' intention to leave the teaching profession. Based on these findings, it becomes clear with the second research hypothesis that high levels of grit and resilience are associated with lower intent to leave teaching service among military veteran teachers who are currently serving in Texas underserved secondary public schools.

Implications for Practice

Findings from this study have important implications for practice in terms of promoting teacher persistence and reducing attrition rates in K-12 public schools. Based on the current finding, it can be emphasized that school districts and principals of secondary schools with high teacher turnover should seek better recruitment methods and procedures to hire teachers who are military veterans because of their higher levels of grit and resilience, and lower intentions to leave the teaching profession. Results reveal that teacher type has strong relationship with resilience, grit, and intention to leave. Since

teachers who lack military experience of perseverance and commitment are more likely to express their intention to leave the teaching profession, there is need to have in place suitable interventions to help non-veteran teachers become more committed in their careers (Admiraal et al., 2020). A key approach includes ensuring job satisfaction and motivation among non-veteran teachers, in addition to ensuring that their jobs contribute to meeting their day-to-day needs. Achieving job satisfaction and motivation means that teachers, especially non-veteran teachers, will not result in contemplating searching for alternative jobs in newspapers or on the internet while still serving in the teaching profession. The study also found that teachers tend to show instances of frustrations that hinder their progress towards achieving their objectives. School administrations need to ensure there is a conducive working environment that motivates teachers to aspire to look forwards to serving as educators within K-12 public schools, thereby reducing the growing risk of attrition and intention to leave the teaching profession (Shields, 2020).

Building and sustaining teacher resilience is another important implication for practice that policymakers and school administrators need to take into consideration. Teachers were less likely to adapt to new changes in school and were fond of losing focus when under pressure. Schools need to have regular communications aimed at sharing new changes with teachers before implementing new changes. Additional interventions would include organizing workshops meant to educate teachers on how to deal with change and how to address new emerging problems within their teaching profession (Lowe et al., 2019). Similarly, school administrations need to help teachers learn how to make difficult choices at the workplace, in addition to assisting them to deal with unpleasant feelings such as anger and fear. Such support would be essential in developing their grit and

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facilitating them to stay focused and committed to their daily workplace goals. Offering this assistance would make teachers more resilient and committed to their profession because they would have necessary skills to deal with day-to-day upsets as opposed to considering leaving their careers as a result of feeling incompetent in navigating through difficult situations (Carrillo, & Flores, 2018). Moreover, helping teachers learn how to make decisions that are not based on a hunch would be critical in overcoming emotional challenges and empower them to make competent decisions while reducing individual intention to quit their jobs.

Limitations

There are potential limitations of undertaking the current research. For instance, the study was largely based on quantitative research through the use of survey questionnaires. Thus, the collected data was numerical in nature and did not collect participants' feelings, perceptions, and opinions about the topic. Further, the research was conducted on veteran and non-veteran teachers in Texas secondary schools. Obtained findings, therefore, might not apply to private schools, charter schools, online instruction or schools outside Texas. The study is also limited by its cross-sectional nature and so the measures of grit and resilience are just snapshots. Finally, it is difficult to establish causality because of the lack of randomization of who was a veteran teacher and who was a non-veteran teacher.

Recommendations for Future Research

Results obtained in this study are largely limited to numerical descriptions about resilience and grit among veteran and non-veteran teachers. Future research should consider whether grit and resilience help explain (or mediate) the relationship between

teacher type and intent to leave. Another recommendation is to use a quasi-experimental design to isolate the effect of being a veteran more carefully. Future research needs to triangulate the data and collect additional insights through focus groups, observations, and interviews about the topic. Such approach will help researchers collect in-depth data to confirm findings obtained in this quantitative study. Due to different working environment and possible differences in regulations, veteran and non-veteran teachers from private schools and charter schools could be added to the survey participation to examine whether issues of resilience and grit affect teachers in the same manner like in public schools. Findings obtained from diversifying teachers to include those from private schools would help create a more comprehensive picture of the teacher differences in the levels of grit and resilience in Texas. Finally, additional quasi-experimental and longitudinal studies of veteran and non-veteran cohorts need to be examined in future studies to establish causality and identify further possible relationships between grit, resilience, and intention to leave.

Conclusion

The purpose of this study was to examine the relationship between teachers' grit, resilience and the intention to leave their current job among military veteran teachers in underserved campuses and non-military teachers teaching in the same schools. Results from survey questionnaires revealed that teachers who have a military background have higher levels of grit and resilience as compared to teachers with no military background. That is, veteran teachers were more likely to create goals and pursue them without giving up until they realized their set goals. Resilient teachers were found to remain positive during difficult situations and formulate solutions to challenges they face as opposed to

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giving up when they encounter problems. Moreover, the study found that high levels of grit and resilience among teachers in Texas secondary schools are associated with lower intent to leave teaching service among military veteran teachers. Compared to teachers who do not have military background, veteran teachers were less likely to leave their current job. Therefore, the veteran teachers revealed a strong sense of resilience and grit that that enabled them to contemplate leaving the teaching profession in search for alternative jobs or starting their businesses.

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Appendices

Appendix A

Turnover Intention Scale

The following section aims to ascertain the extent to which you intend to stay at the organization. Please read each question and indicate your response using the scale provided for each question: During the past 9 months:

1	How often have you considered leaving your job?	**Never**	1------2------3------4------5	**Always**
2	How frequently do you scan the newspapers in search of alternative job opportunities?	**Never**	1------2------3------4------5	**All the time**
3	How satisfying is your job in fulfilling your personal needs?	**Very satisfying**	1------2------3------4------5	**Totally dissatisfying**
4	How often are you frustrated when not given the opportunity at work to achieve your personal work-related goals?	**Never**	1------2------3------4------5	**Always**
5	How often are your personal values at work compromised?	**Never**	1------2------3------4------5	**Always**
6	How often do you dream about getting another job that will better suit your personal needs?	**Never**	1------2------3------4------5	**Always**
7	How likely are you to accept another job at the same compensation level should it be offered to you?	**Highly unlikely**	1------2------3------4------5	**Highly likely**
8	How often do you look forward to another day at work?	**Always**	1------2------3------4------5	**Never**
9	How often do you think about starting your own business?	**Never**	1------2------3------4------5	**Always**
10	To what extent do responsibilities prevent you from quitting your job?	**To no extent**	1------2------3------4------5	**To a very large extent**
11	To what extent do the benefits associated with your current job prevent you from quitting your job?	**To no extent**	1------2------3------4------5	**To a very large extent**
12	How frequently are you emotionally agitated when arriving home after work?	**Never**	1------2------3------4------5	**All of the time**
13	To what extent does your current job have a negative effect on your personal well-being?	**To no extent**	1------2------3------4------5	**To a very large extent**

14	To what extent does the "fear of the unknown," prevent you from quitting?	**To no extent**	1-------2-------3-------4-------5	**To a very large extent**
15	How frequently do you scan the internet in search of alternative job opportunities?	**Never**	1-------2-------3-------4-------5	**All of the time**

Appendix B

Teacher Resilience Scale

A/A	Items	Never	Rarely	Sometimes	Often	Always
1.	I am able to adapt to change	1	2	3	4	5
2.	Sometimes fate or God can help me overcome my challenges	1	2	3	4	5
3.	Sometimes I believe things happen for a reason	1	2	3	4	5
4.	Under pressure, I am able to focus and think clearly.	1	2	3	4	5
5.	I prefer to take the lead in problem solving	1	2	3	4	5
6.	I am not easily discouraged by failure	1	2	3	4	5
7.	I Think of myself as strong person	1	2	3	4	5
8.	If necessary, I can make unpopular or difficult decisions that affect other people	1	2	3	4	5
9.	I can handle unpleasant feelings, such us anger or fear	1	2	3	4	5
10.	Sometimes I have to act on a hunch	1	2	3	4	5
11.	I like challenges	1	2	3	4	5
12.	I work hard to attain my goals	1	2	3	4	5
13.	In my workplace I enjoy being together with other people	1	2	3	4	5
14.	New friendships are something I make easily in my workplace	1	2	3	4	5
15.	Meeting new people in my workplace is something I am good at	1	2	3	4	5

16.	In my workplace When I am with others, I easily laugh	1	2	3	4	5
17.	My family's understanding of what is important in life is very similar to mine	1	2	3	4	5
18.	I feel very happy with my family	1	2	3	4	5
19.	My family is characterized by healthy coherence	1	2	3	4	5
20.	In difficult periods my family keeps a positive outlook on the future	1	2	3	4	5
21.	Facing other people, our family acts loyal towards one another	1	2	3	4	5
22.	In my family we like to do things together	1	2	3	4	5
23.	I can discuss personal issues with my peers	1	2	3	4	5
24.	The bonds among my peers and me are strong	1	2	3	4	5
25.	I get support from my peers	1	2	3	4	5
26.	When needed, I have always someone in my workplace who can help me	1	2	3	4	5

Appendix C

Grit-S Scale

Directions for taking the Grit Scale: Please respond to the following 8 items. Be honest – there are no right or wrong answers!

1. New ideas and projects sometimes distract me from previous ones.*
   - ❑ Very much like me
   - ❑ Mostly like me
   - ❑ Somewhat like me
   - ❑ Not much like me
   - ❑ Not like me at all

2. Setbacks don't discourage me.
   - ❑ Very much like me
   - ❑ Mostly like me
   - ❑ Somewhat like me
   - ❑ Not much like me
   - ❑ Not like me at all

3. I have been obsessed with a certain idea or project for a short time but later lost interest.*
   - ❑ Very much like me
   - ❑ Mostly like me
   - ❑ Somewhat like me
   - ❑ Not much like me
   - ❑ Not like me at all

4. I am a hard worker.
   - ❑ Very much like me
   - ❑ Mostly like me
   - ❑ Somewhat like me
   - ❑ Not much like me
   - ❑ Not like me at all

5. I often set a goal but later choose to pursue a different one.*
   - ❑ Very much like me
   - ❑ Mostly like me
   - ❑ Somewhat like me
   - ❑ Not much like me
   - ❑ Not like me at all

6. I have difficulty maintaining my focus on projects that take more than a few months to complete.*
   - ❑ Very much like me
   - ❑ Mostly like me
   - ❑ Somewhat like me
   - ❑ Not much like me
   - ❑ Not like me at all

7. I finish whatever I begin.
   - ❑ Very much like me
   - ❑ Mostly like me
   - ❑ Somewhat like me
   - ❑ Not much like me
   - ❑ Not like me at all

8. I am diligent.
   - ❑ Very much like me
   - ❑ Mostly like me
   - ❑ Somewhat like me
   - ❑ Not much like me
   - ❑ Not like me at all

Scoring:
1. For questions 2, 4, 7 and 8 assign the following points:
   5 = Very much like me
   4 = Mostly like me
   3 = Somewhat like me
   2 = Not much like me
   1 = Not like me at all

2. For questions 1, 3, 5 and 6 assign the following points:
   1 = Very much like me
   2 = Mostly like me
   3 = Somewhat like me
   4 = Not much like me
   5 = Not like me at all

Add up all the points and divide by 8. The maximum score on this scale is 5 (extremely gritty), and the lowest score on this scale is 1 (not at all gritty).
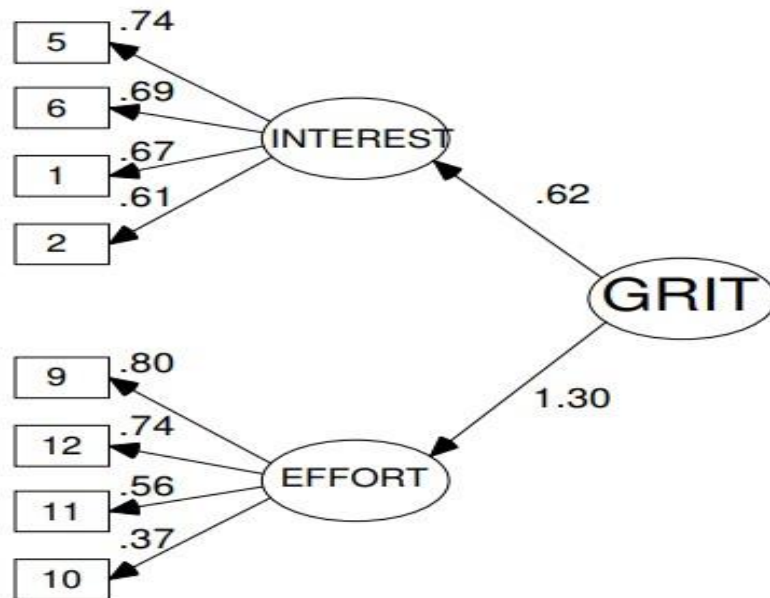
Appendix D

IRBs

University of Houston IRB

UNIVERSITY of
HOUSTON
DIVISION OF RESEARCH
Institutional Review Boards

APPROVAL OF SUBMISSION

January 27, 2020

David Sanchez

TX

dsanchez3@uh.edu

Dear David Sanchez:

On January 27, 2020, the IRB reviewed the following submission:

Type of Review:	Initial Study
Title of Study:	VOICES FROM THE TRENCHES: THE RELATIONSHIP BETWEEN GRIT/RESILIENCE AND INTENT TO STAY AMONG MILITARY VETERAN TEACHERS IN UNDER-SERVED SCHOOLS
Investigator:	David Sanchez
IRB ID:	STUDY00001792
Funding/ Proposed Funding:	Name: Unfunded
Award ID:	
Award Title:	
IND, IDE, or HDE:	None
Documents Reviewed:	• SanchezHRP-503 Protocol Template1_26.pdf, Category: IRB Protocol; • HRP-502e - TEMPLATE COVER LETTER Sanchez.pdf, Category: Consent Form; • Grit and Resilience Surveys.pdf, Category: Study tools (ex: surveys, interview/focus group questions, data collection forms, etc.); • Consent Form and Surveys, Category: Study tools (ex: surveys, interview/focus group questions, data collection forms, etc.);
Review Category:	Exempt
Committee Name:	Not Applicable
IRB Coordinator:	Sandra Arntz

UNIVERSITY of
HOUSTON
DIVISION OF RESEARCH
Institutional Review Boards

The IRB approved the study on January 27, 2020 ; recruitment and procedures detailed within the approved protocol may now be initiated.

As this study was approved under an exempt or expedited process, recently revised regulatory requirements do not require the submission of annual continuing review documentation. However, it is critical that the following submissions are made to the IRB to ensure continued compliance:

- Modifications to the protocol prior to initiating any changes (for example, the addition of study personnel, updated recruitment materials, change in study design, requests for additional subjects)
- Reportable New Information/Unanticipated Problems Involving Risks to Subjects or Others
- Study Closure

Unless a waiver has been granted by the IRB, use the stamped consent form approved by the IRB to document consent. The approved version may be downloaded from the documents tab.

In conducting this study, you are required to follow the requirements listed in the Investigator Manual (HRP-103), which can be found by navigating to the IRB Library within the IRB system.

Sincerely,

Research Integrity and Oversight (RIO) Office
University of Houston, Division of Research
713 743 9204
cphs@central.uh.edu
http://www.uh.edu/research/compliance/irb-cphs/

Alamo ISD IRB

Attachment B

— External Research Application
CONFIDENTIALITY AGREEMENT FORM

CONFIDENTIALITY AGREEMENT FORM
(To be completed by the Applicant and EACH Sponsor)

I, David Sanchez _____ understand and agree:
(print name)

- To follow all ISD guidelines, policies and procedures.

- To provide a copy of the final report for review knowing the report may be shared within the district at the district's discretion.

- To not use the name of the district, school, or individual in any publication as a result of the research study without prior written authorization from the Superintendent of Schools.

- To destroy any personally identifiable data immediately upon completion of the research study.

- To protect confidentiality and not distribute any data, dataset or output reports that are generated due to this request without prior written authorization from the district.

- To prevent unauthorized disclosure of confidential information. Any unintentional or negligent release of confidential student information may lead to the immediate revocation of any contract (or research project) that I may be performing and may also subject me to a legal cause of action for violation of an individual's civil rights in addition to state or federal criminal penalties. Unauthorized disclosure is illegal as provided in The Family Educational Rights and Privacy Act (FERPA) (20 U.S.C. § 1232g; 34 CFR Part 99).
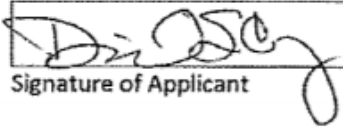
Approved by (signature)	Date
Virginia Rangel	04 /16 /2020
Applicant's Sponsor's Name (please print)	Date
Virginia Morgan Rangel	04/16/2020
Applicant's Sponsor's Signature	Date

Office Use Only:	
☑ Approved *James Curts* James Curts (May 6, 2020)	☐ Denied 05-06-2020
Official Signature / Research Review Committee	Date

It is the policy of the ██████ not to discriminate on the basis of sex, disability, race, color, religion, national origin or age.
Es norma del Distrito de ██████ no discriminar en base al sexo, inhabilidad, raza, color, religion, nacionalidad o edad.

You must submit your proposal AND receive preapproval from each appropriate sponsor:

- **Study Site Sponsor** – Your proposal must be preapproved by EACH study site's administrator (Director-Central Office/Principal-Campus).This step allows the study-site administrator to review the research you are requesting, answer questions, and agree or disagree to the study.
- **Faculty Advisor/Chairperson Sponsor** – Your proposal must be preapproved by your thesis/dissertation chairperson.
- **District Administrator Sponsor** – If you are an employee of the district, our immediate administrator (director/principal) must sign a copy of this form.
- **Research Agencies** – If you are conducting a study for an outside-research organization, you must obtain approval from an assistant superintendent.

PROPOSAL PRE-APPROVAL FORM
(Must be approved by EACH appropriate sponsor)

David Sanchez

Name of Applicant (please print)

Dr. DSC

Signature of Applicant

Date: 4/15/2020

Voices from the Trenches

Title of Study (copy of proposal should be presented for review/discussion)

☑ The applicant **has** presented the proposal AND has obtained the necessary permission to submit a request to conduct research.

☐ The applicant has presented the proposal and **has not** obtained the necessary permission to submit a request to conduct research.

James Curts

Approved by (please print name and title)

Site name

College Organization/Campus/Department:

James Curts
James Curts (May 6, 2020)

Approved by (signature)

Date: 05-06-2020

Research Permission Forms

Final Audit Report   2020-05-06

Created:	2020-05-05
By:	Jennifer Mittelstaedt (jennifer.mittelstae~~████████~~
Status:	Signed
Transaction ID:	CBJCHBCAABAAKVueEVj0z1iuUQfQyjRYWFIKH9Loj7Kq

"Research Permission Forms" History

- Document created by Jennifer Mittelstaedt (jennifer.mittelstaed@~~████~~
  2020-05-05 - 7:38:27 PM GMT- IP address: 70.125.200.135

- Document emailed to James Curts (james.curts@~~████~~ ~~or~~ signature
  2020-05-05 - 7:42:41 PM GMT

- Document e-signed by James Curts (james.curts~~████~~
  Signature Date: 2020-05-06 - 3:10:59 PM GMT - Time Source: server- IP address: 165.227.183.133

- Signed document emailed to Jennifer Mittelstaedt (jennifer.mittelstaed~~████~~ and James Curts
  (james.curts@~~████~~
  2020-05-06 - 3:10:59 PM GMT

Texas ISD IRB

March 31, 2020

David Sanchez
5122 Lakota Trail
Spring, Texas 77388
Dsanch2@springisd.org

Dear Mr. Sanchez:

The ████ Independent School District is pleased to approve your study, "Voices from the Trenches: The Relationship Between Grit/Resilience and Intent to Stay Among Military Veteran Teachers in Underserved Schools." The purpose of this study is to explore the association between military service and grit/resilience in an educational setting. Specifically, the researchers intend to compare grit and resilience in teachers with and without military backgrounds. Data will be collected in the spring of 2020.

Approval to conduct the study in ████ ISD is contingent on you meeting the following conditions:

- ████ ISD middle and high school teachers will be asked to complete an anonymous survey, containing 49 Likert items that measure teacher turnover, grit, and resilience. Data will be collected in the spring of 2020. Eligible campuses include: all secondary schools.
- The total time for each teacher's participation will be approximately 15–20 minutes.
- No archival data will be requested from the district.
- It is at the discretion of campus principal(s) to participate in the research study. Permission from the principal must be obtained prior to collecting any data.
- All staff participating in this study must provide their informed consent/assent before taking part in the study.
- District, schools, and staff are not identified in the study, and data remain confidential.
- The study does not infringe upon designated instructional time on a campus.
- Approval to conduct the study is granted for fulfillment of a doctoral program at the University of Houston.
- The district receives copies of the completed final report within 30 days after its completion.

Any changes or modifications to the current proposal must be submitted for approval to the ████ ISD's Department of Research, Accountability, and Testing. The district reserves the right to forego its participation in the study at any time without reason. Should you need additional information or have any questions concerning the process, please contact Kendall McCarley at (281) 891-6351.

Sincerely,

Kendall McCarley

Kendall McCarley, Ph.D.

cc: Jennifer Cobb   Efrain Olivo   Pamela Farinas
         Dan Taylor   Kimberly Fonteno   Miguel Perez

Good Afternoon Mr. David Sanchez.

Congratulations!

On behalf of ███ ISD, Research and Review Committee, We would like to wish you great endeavors on your research initiative. I have attached a copy of the approval form as well as your background check, for your records. If there is anything else I can do for you don't hesitate to email me at jennifer.mittelstaed█████████

Good Luck!

As a reminder:

- All ███ District data and/or email requests must be directed to our Human Resource Department - Mr. Juan Alvarez, Chief of Staff at juan.alvarez@█████████
- If you will have any additional assistance on your team who is not a ███ ISD employee and will be interacting with students and/or conducting your research activities during school hours all participating researchers must go through our background check procedures per policy. Please call Human Resource Department at 956-354-2013 to complete the process.
- Provide our office with a copy of your approved IRB as soon as you receive confirmation. * Please disregard as we already have a copy of you IRB (attached copy).
- Provide our office with any additional Pre-Approval forms (with signatures from participating Principals)

We look forward to reviewing your research findings in your report.

Respectfully,

Jennifer Mittelstaedt

Grant Management, Research and Evaluation | Administrative Assistant

██████████████████

956.354.2038 | ext 1530