

RELATIONSHIPS OF PRINCIPAL GRIT, TEACHER TRUST IN THE PRINCIPAL, AND FACULTY
ORGANIZATIONAL COMMITMENT
IN ALABAMA PUBLIC HIGH SCHOOLS

by

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ABSTRACT

This study investigated the relationships of principal grit, teacher trust in the principal, and faculty organizational commitment. Grit is perseverance and passion for long-term goals. Organizational Commitment is an individual's ability to identify with an organization and experience satisfaction from current job experiences. Trust in the Principal is believing the principal will use his/her position to create a safe environment for students and faculty. The behaviors displayed by the principal should promote a norm of reciprocity where trust and commitment are exchanged for grit.

This study utilized data from 42 schools, 42 principals, and 701 teachers within a convenient sample. Three reliable instruments were used in this study: Grit-S, Omnibus T-scale, Organizational Commitment Scale (OCQ).

The first hypothesis of the study tested the relationship of Principal Grit (PG) with Teacher Trust in the Principal (TTITP). The findings for this hypothesis were not supported. PG was not significantly related to TTITP. The second hypothesis of the study tested the relationship of PG with Faculty Organizational Commitment (FOC). The findings for this hypothesis were not supported. PG was not significantly related to FOC. Regression analysis indicated that PG did not predict TTITP or FOC. Socioeconomic status (SES) was not related to or predicted by PG.

DEDICATION

To my mom, Linda – Thank you for all your support and love. You kept asking the Question “When will you be done?” That answer is now!

To my brothers and sister – Thanks you for your encouragement during this process.

To my nieces and nephews – I hope this research encourages you to be an explorer in life.

To the people who put me on this path – I cannot name everyone, however, along this journey there has been people who have come the entire way and others who have only been on certain parts of it. But without you, I would not have completed it. Thanks!

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CHAPTER 1: INTRODUCTION

Overview

This study is an investigation of organizational commitment and trust and how they relate to grit. This chapter offers a background for the study, along with the purpose for the research. Key concepts relating to the research are defined and questions that guided the study are introduced. Finally, the scope and limitations, along with assumptions of the study, are discussed.

Background of the Study

Positive psychology is an emerging tool that schools can use for continuous improvement. Gable and Haidt (2005) defined positive psychology as “the study of the conditions and processes that contribute to the flourishing or optimal functioning of people, groups, and institutions” (p.104). Duckworth, Steen, and Seligman (2005) held that positive psychology, “is the scientific study of positive experiences and positive individual traits, and the institutions that facilitate their development” (p. 630). In his book *A Primer in Positive Psychology*, Peterson (2006) described positive psychology “as the scientific study of what goes right in life, from birth to death and at all stops in between” (p. 4). The recent positive psychology movement has developed due to an emphasis on the neglected areas such as attachment, optimism, love, emotional intelligence and intrinsic motivation (Gable & Haidt, 2005). Hoy and Tarter (2011) recently advocated positive psychology as a strategy schools can use in the field of educational administration.

Educators strive to understand why some students outperform their peers. Angela Duckworth is a prominent author in the areas of positive psychology and self-control studies

(Duckworth, Seligman, 2006; Duckworth & Seligman, 2005, Duckworth, Steen, & Seligman, 2005). Before becoming a psychology professor, she was a classroom teacher who wondered why her middle and high school math students who tried hardest did the best, and her students who did not try very hard did poorly. Duckworth identified a behavioral trait she identified as “grit”. Grit evolved from her research concerning the role of effort in a person’s success (Duckworth, 2013).

Duckworth, Peterson, Matthews, and Kelly (2007) hypothesized that a non-cognitive trait called grit would be essential to high achievement. They defined grit as being “perseverance and passion for long-term goals” (p. 1087). This idea developed during interviews with professionals in investment banking, painting, journalism, academia, medicine, and law. During the interviews individuals cited grit, or a close synonym, as often as talent as the trait that distinguishes star performers in their respective field. Grit remains a relatively new field. Despite some studies on grit, (Duckworth et al., 2007; Duckworth, Quinn, & Seligman, 2009; Duckworth, Kirby, Berstein, & Anders Ericsson, 2011) there remain many areas in need of empirical research, such as school leadership.

The question is can principal grit influence teacher behaviors? Yukl (2010) defined leadership as, “the process of influencing others to understand and agree about what needs to be done and how to do it, and the process of facilitating individual and collective efforts to accomplish shared objectives” (p. 8). Comparisons can be made to determine how the grit of a principal affects other members of the school organization. In theory, the concept grit as a proposed strategy for administrators will not only lead to outcomes such as teacher effectiveness, but also allow principals to change school culture and improve student achievement.

Need and Purpose

Grit is a concept easily applied to the educational setting. Grit has previously been linked to teacher effectiveness and teacher retention (Duckworth et al., 2009; Robertson-Kraft & Duckworth, 2013). Grit has also been cited as a strong indicator of the ability to excel in academic contests and achievement (Duckworth et al., 2007; Duckworth & Quinn, 2009). This study will expand the theoretical knowledge of grit, organizational commitment, and trust with the behaviors and perceptions of those who work in public schools.

The first purpose of this study is to examine the construct of grit and its potential relationship to organizational commitment. No research has been conducted concerning a possible connection between the two concepts. However, commitment and grit are mutually characterized by a willingness to exert substantial extra effort (Duckworth et al., 2007; Porter, Steers, Mowday, & Boulian, 1974). Commitment has been investigated using leadership behavior that exhibits aspects of grit. Tarter, Hoy, and Bliss (1989) wrote that “supportive principal behavior motivates teachers through constructive criticism and the example of hard work” (p. 132). Supportive principal behavior also demonstrates a concern for staying with and accomplishing tasks (Hoy, Tarter, & Witkoskie, 1992). Supportive behaviors by the principal have been positively correlated with organizational commitment (Tarter et al., 1989). One would expect the principal’s grit behavior to influence the organizational commitment of faculty, but this supposition has not been tested.

The second purpose for this study is to examine the construct of grit and its possible relationship to faculty trust in the principal. While there is nothing linking these concepts in the research literature, both have been previously linked to teacher effectiveness (Duckworth et al., 2009, Robertson-Kraft & Duckworth, 2013, Tarter, Sabo, & Hoy, 1995). Trust hinges on a party’s willingness to be reliable, honest, competent, benevolent, and open to another party (Hoy & Tschannen, 1999). Reliability and grit share the commonality of predictability (Hoy & Tschannen-Moran, 2003;

Duckworth et al., 2011). While by itself, reliability is not enough to produce trust this joint attribute suggests a plausible connection between trust and grit (Tschannen-Moran, 2003). Prior research has also connected faculty trust in the principal with supportive principal behavior which as mentioned, contains features of grit (Hoy et al., 1992). One would assume that grit behavior exhibited by the principal leads to faculty trust in the principal. However, the assertion has not been tested. Finally, the study explores the simultaneous relationship of trust and commitment to grit.

Definition of Concepts

Grit will be defined using the work of Duckworth et al., (2007) as “perseverance and passion for long-term goals”.

Organizational Commitment is an individual's ability to identify with an organization and satisfaction resulting from one's perceptions of current job experiences (Porter et al., 1974).

Trust is “one party’s willingness to be vulnerable to another party because of confidence that the latter party is reliable, honest, competent, benevolent, and open” (Hoy & Tschannen, 1999, p. 556).

Trust in the Principal is the belief that the principal will use his/her position to create a safe environment for students and faculty. Also the principal will work collaboratively with all stakeholders to create a caring supportive environment (Hoy & Kupersmith, 1985).

Research Questions

The focus of this study is summarized through the following questions:

1. Is the grit behavior of the school principal related to the faculty’s commitment to the school organization?
2. Is the grit behavior of the school principal related to the faculty’s trust in the principal?

3. Is principal grit collectively and independently related to the faculty's trust in the principal and commitment to the school?

Scope

The scope of this study will include a sample of 50 high schools chosen from the 233 public schools in Alabama. High schools are defined as those schools with grade configurations of 9-12 or 10-12 and will exclude Career Technology or Vocational Centers. Data will be collected from the participants during regularly scheduled faculty meetings at each school.

Limitations

This study will not be without limitations. These limitations will include:

1. This study will be using cross-sectional data rather than longitudinal data and should be interpreted accordingly.
2. This study will be subject to measurement error.
3. The study is limited to a population and sample size of Alabama public schools within a specific area and should not be generalized to other states.
4. There may be other antecedents of faculty trust and organizational commitment other than principal grit.

Summary

This chapter provides background knowledge of how the concept grit developed. It also provided reasons for an investigation of grit, organizational commitment, and trust in the principal. The purpose of the study is to investigate how grit behavior demonstrated by the school principal influences commitment and trust within the school organization. Definitions of key concepts were provided. Research questions were constructed to test the theory that grit predicts organizational commitment and trust. A scope of the study and limitations was also provided.

CHAPTER 2: REVIEW OF LITERATURE

This chapter will provide a history of the concepts grit, commitment, and trust. While this study is based on Angela Duckworth's groundbreaking research on grit, the review will also include a history of commitment and trust as proposed correlates of grit. After a survey of these concepts, a theory linking them into a general framework will be constructed and hypotheses that test the framework will be presented.

Conceptual Framework

Studies of eminence have yielded many interpretations over time. A predominate leadership theory during the 19th century was The Great Man Theory. It held that great leaders are born not made. The Great Man Theory is associated most often with 19th-century commentator and historian Thomas Carlyle, who commented that, "the history of what man has accomplished in this world is at bottom the history of the great men who have worked here" (Carlyle, 2007, p. 4). In his book *On Heroes, Hero-Worship and the Heroic in History*, Carlyle outlined how history has turned on the decisions of men he classified as heroes. He analyzed the roles of heroes in the areas of the divinity, prophets, poets, priests, men of letters, and kings. Some of the men he researched included Shakespeare, Luther, and Napoleon. Carlyle felt the study of great men was profitable. He suggested that by examining the history of great men, insight about heroism could be gained into one's own life. The Great Man Theory assumes that the traits of leadership are intrinsic. Furthermore, it centers on the belief that great leaders will rise when confronted with a defining situation.

Hook (1992) questioned Carlyle's theory concerning great men and their abilities to alter the course of history through their actions. He suggested some men we now call heroes were

merely eventful men who just happen to be present at the right time. Hook defined an event-making man as, “an eventful man whose actions are the consequences of outstanding capacities of intelligence, will, and character rather than of accidents of position” (Hook, 1992, p. 99). Hook stated “the eventful man is like the legendary little Dutch boy who became a hero because he stopped up the gap in the dike with his finger until aide could come” (Hook, 1992, p. 179). However, he pointed out any little Dutch boy could have done the same if he just had come by first. Hook suggested others were just as able to understand the potential of the moment. These people could also take control and direct the course of events. For example, he observed that while the February 1917 Russian Revolution was an inevitable development, the October revolution where the Bolshevik Party took power was contingent upon the personality and actions of Nicolai Lenin. Without Lenin, the revolution would not have had the significance it did. Rejecting Carlyle’s theories that individuals are intrinsically destined for greatness, Hook believed that event-making individuals shaped historical events.

Talent versus Achievement

In an attempt to prove genius was hereditary, Francis Galton (1892) investigated the underlying factors of achievement. Galton expected to confirm this link by documenting a number of famous men with eminent relatives. He collected biographical information on prominent judges, statesmen, scientists, poets, musicians, painters, wrestlers, and others. Galton was surprised to find that ability alone did not bring about success in any field. Rather, he declared high achievers were blessed by “ability combined with zeal and with capacity for hard labour” (Galton, 1982, p. 38). In Galton’s view, the power to do a great deal of hard work was an essential factor to success.

William James challenged the field of psychology to further investigate how certain individuals are capable of tapping into trait reservoirs that enable them to accomplish more,

while others only use a small part of their mental and physical resources. James references these rich reservoirs in the familiar phenomenon known as “catching your second wind” (James, 1907, p. 7). He noted that most individuals stop when they meet the first level of fatigue during an activity. James suggested that if one keeps pressing through the initial difficulty an amazing event occurs: weariness magically passes away. New levels of energy and strength are tapped that otherwise would be unattainable had the individual not persevered and passed through the difficulty. James stated this extra effort of will was made possible by “excitements, ideas, and efforts” (James, 1907, p.16).

In 1926, Catherine Cox analyzed the heredity, childhood, and the youth of 301 of the most famous people who lived between the years of 1450 and 1850. The purpose of her study was to classify individuals who had made extraordinary contributions to their cultures based on mental capacity. Cox found the achievement of these people was based not so much on their IQ, but on non-intellectual factors. She concluded that "youths who achieved eminence are characterized not only by high intellectual traits, but also by persistence of motive and effort, confidence in their abilities, and great strength of force of character” (Cox, 1926, p. 218).

Lewis Terman (Terman & Oden, 1947), a colleague of Cox, spent decades following a large sample of gifted students searching for evidence that his measurement of intelligence was linked to real world success. His longitudinal study found the most accomplished men did have slightly higher IQ scores than their counterparts. However, Terman, along with his partner Melita Oden, found other non-cognitive traits such as perseverance were much more important to guarantee success for Terman’s mentally gifted subjects.

Examining the critical factors that contribute to talent, Benjamin Bloom (1985) studied 120 Americans under the age of 40 who were considered elite in various fields. These people

included sculptors, Olympians, and mathematicians. Interviews were conducted with the subjects, their parents, and - in some instances - their coaches or teachers. Bloom found no evidence of early indicators that predicted success. However, he did note that parents with multiple children commonly stated that the child who succeeded in their family was not the most talented. Parents distinguished the high achiever from the others with the characteristics of “willingness to work and desire to excel” (Bloom, 1985, p. 473).

Howe (1999) disputed the belief that geniuses are born as high achievers. He researched famous figures such as Charles Darwin, George Eliot, and Albert Einstein. Howe suggested genius is the product of a combination of environment, personality, and sheer hard work. Referring to achievement, Howe wrote that, “perseverance is at least as crucial as intelligence . . . The most crucial inherent differences may be ones of temperament rather than of intellect as such” (Howe, 1999, p. 15).

The Emergence of Grit

Duckworth et al., (2007) conducted six separate studies testing the importance of one non-cognitive trait they introduced as grit. The authors defined grit as perseverance and passion for long-term goals. The hypothesis of grit being essential to high achievement evolved during interviews with professionals in investment banking, painting, journalism, academia, medicine, and law. Grit was cited as often as talent as the quality that distinguished star performers in their respective field. The researchers hypothesized some people simply work harder than others. More importantly, they work in a particular way.

Development of the Grit Scale

Duckworth et al., (2007) sought to develop and validate a self-report measure of grit. A large sample of 1,545 adults aged 25 years and older was used for this study. They began by generating a pool of 27 items that tapped grit. The goal of the scale development was to capture

the attitudes and behaviors characteristic of the high-achieving individuals described in earlier interviews with lawyers, businesspeople, academics, and other professionals. Items were included that selected the ability to sustain effort in the face of adversity (e.g., “I have overcome setbacks to conquer an important challenge”, “I finish whatever I begin”). Other items asked about the consistency of interests over time due to the fact that people are afraid of change, complaint with the expectations of others, or unaware of alternative options (e.g., “My interests change from year to year”, “I have difficulty maintaining my focus on projects that take more than a few months to complete”). A total of 10 items were eliminated based on item-correlations, internal reliability coefficients, redundancy, and simplicity of vocabulary. On the remaining 17 items, an exploratory factor analysis was conducted that resulted in a two-factor solution with 12 retained items. The first factor contained 6 items indicating consistency of interests and the second factor contained 6 items indicating perseverance of effort. This structure was consistent with the theory of grit as a compound trait comprising of stamina in the dimensions of interest and effort. The construct demonstrated high internal consistency as a whole ($\alpha = .85$) and for each factor (Consistency of Interests, $\alpha = .84$; Perseverance of Effort, $\alpha = .78$).

Researchers examined if grit increased with age. A total of 690 respondents endorsed positively-scored items such as “I finish whatever I begin” and reverse-scored items such as “new ideas and projects sometimes distract me from previous ones”. Items were rated on a 5-point Likert scale. More educated adults were found to be higher in grit than less educated adults. This finding suggests perhaps the adults are more educated because they have grit.

Duckworth et al., (2007) questioned if grit provided incremental predictive validity related to age and education over and beyond the framework of the Big Five personality traits of Extraversion, Openness to Experience, Conscientiousness, Neuroticism, and Agreeableness. These traits were first discovered by Norman (1963) who was replicating an obscure study

predicting U. S. Air Force effectiveness. His work was significant because The Big Five Model was developed on traits that predict success. The researchers also wanted to know if there was evidence that grittier individuals make fewer career switches than their less gritty peers. A total of 706 participants aged 25 and older completed the same grit measures used in the instrument validation study, they indicated the number of times they had changed careers, and completed a 44-item questionnaire known as the Big Five Inventory. Results showed both age and education were significant predictors of grit. Individuals found to be lower in grit were those who did not finish college. Grit was revealed as the only significant predictor in high versus low career change. Individuals high in grit were 35% less likely to frequently change careers. These results suggested that grittier adults are more likely to progress further in education and make fewer career changes.

Duckworth et al., (2007) tested if grit was related to cumulative GPA among undergraduates at The University of Pennsylvania. SAT scores were also used to determine if grit was mutually independent to intelligence. A total of 138 participants completed the grit scale via email and reported additional information such as current GPA, gender, and SAT scores. Grittier students were found to have higher GPA's. Surprisingly, grit was associated with lower SAT scores. This finding suggests that elite undergraduates who are less bright compensate by being grittier.

In an effort to determine what predicts success in the most challenging environments, Duckworth et al., (2007) hypothesized that grit would predict a freshman cadet's retention over their first summer training program at West Point. Staying at West Point through the first summer training period is sometimes known as the "Beast Barracks". This first year is designed to test cadets' physical, mental, and emotional capacities. Approximately 1,218 freshman cadets

at West Point completed questionnaires on grit and self-control. Other measures used included Whole Candidate Score, academic GPA, summer retention, and Military Performance Score (MPS). Results indicated that grit was the best predictor of completing the summer training program. Cadets who were a standard deviation higher than average in grit were 60% more likely to complete their first summer training. Self-control was a better predictor than grit of GPA. Self-control and grit predicted MPS about the same. Whole Candidate Score was a much better predictor of both MPS and GPA. While continuing to earn good grades and scores is a tough accomplishment at West Point, cadets who survived the grueling freshmen summer training demonstrated a special kind of fortitude.

Duckworth et al., (2007) extended the previous study to test whether grit had incremental predictive validity for summer attrition of West Point cadets during their first summer training program over and beyond the Big Five Conscientiousness. The day after their arrival at West Point, approximately 1, 308 cadets completed the Grit Scale and a nine-item Conscientiousness subscale of the Big Five Inventory. Whole Candidate Score and retention data were also obtained. Grit and conscientiousness were highly related. As in the prior study, grit was the best predictor of summer retention. When grit, conscientiousness, and Whole Candidate Score were entered together into a binary logistic regression model, only grit predicted summer retention.

In a longitudinal investigation involving Scripps National Spelling Bee contestants, Duckworth et al., (2007) examined if grit predicted contestants making the final round of the competition and if this attainment was mediated by time on task and the number of prior final competitions entered. The researchers included age as a covariate due to older children having likely participated in many prior competitions. A total of 175 participants completed questionnaires involving the Grit Scale and Self-control. Verbal IQ tests were administered to 79

of the participants. Participants reported how many hours per week they studied for the finals on weekdays and how many hours per day they studied on the weekends. Due to dependent variables, final round and prior competitions being ordinal, ordinal regression models were used to test the effect of each predictor. Analyses indicated that when final round was entered as the dependent variable, grit and age predicted advancement to higher rounds. Next, in a simultaneous multiple regression with study time as the dependent variable, grit was a significant predictor of study time. Finally, grit was a significant predictor of final round attainment when controlling for age with study time and prior competitions as control variables. These results suggest gritty contestants work harder, longer, and perform better than their less gritty peers.

Across six separate studies, Duckworth and Quinn (2009) attempted to validate a more efficient measure of grit. The original two-factor 12-item self-report measure of grit discussed in the prior studies did not examine whether either factor predicted outcomes better than the other. The researchers wanted to explore the predictive validity of the two factors.

Duckworth and Quinn (2009) identified items with the best predictive validity across four samples (two from West Point, The National Spelling Bee, and Pennsylvania University) originally used in Duckworth et al., (2007). Item-level correlations were computed with outcomes for all four samples. The correlations were ranked within each domain. Two items, which were frequently below the median in prediction, were eliminated from the Consistency of Interest and Perseverance of Effort subscales. The resulting eight-item Grit-S displayed acceptable internal consistency, with alphas ranging from .73 to .83 across all the samples. Some of items that remained included, “I finish what I begin” and “I am diligent”. The Consistency of Interest subscale showed adequate internal consistency with alphas ranging from .73 to .79. Alphas were somewhat lower for Perseverance of Effort, with values ranging from .60 to .78.

Duckworth and Quinn (2009) attempted to confirm the factor structure of the Grit-S, identify its relationship to the Big Five Inventory (BFI), and establish predictive validity for career changes and educational attainment. Participants in the study included 1,554 adults who completed 12 items comprising both the Grit-O and Grit-S, and reported their level of education. Confirmatory factor analysis supported the two-factor model of grit. Grit-S was associated with BFI Conscientiousness more than any other BFI factor. When Conscientiousness and all other BFI factors were controlled for, Grit-S predicted educational attainment. Grit-S was also inversely related to the number of career changes individuals made in a lifetime. These results suggested that grittier adults are more educated and make fewer career changes. The Grit-S instrument demonstrated good internal consistency at $\alpha = .82$.

Seeking to validate an informant report version of the Grit-S, Duckworth and Quinn (2009) conducted an extension of the previous study. Participants completed the self-report measures in the prior study along with 161 of their friends and family members. These informants completed an online informant version of the Grit-S. The correlations among self-report, peer report, and family member report Grit-S scores were medium to large. These results indicated that grit can reliably be assessed by informants.

In a longitudinal study involving high achieving middle and high school students, Duckworth and Quinn (2009) found that scores on the Grit-S over a period of 1 year were stable and showed good internal consistency $\alpha s = .82$ and $.83$ respectively. Scores on the Grit-S also predicted higher student grade point averages for grittier students who spent less hours watching TV. This finding suggested that student grit predicted academic achievement.

Duckworth and Quinn (2009) hypothesized that the Grit-S would predict retention of West Point candidates over their first summer. A total of 1,248 freshman candidates completed

Grit-S questionnaires during routine group testing after their arrival to West Point in June of 2005. Compared to the composite score used by West Point to admit candidates, cadets who scored a standard deviation higher than average on the Grit-S were 99% more likely to complete the difficult summer training. .

The Grit-S scale was next used to test the predictive validity of the instrument as a behavioral measure of performance. Duckworth and Quinn (2009) sampled a total of 190 spellers using the Grit-S, The Big Five Inventory (BFI), and records from each of the 190 spellers as measures. Gritty national spelling bee finalists were found to be more likely to reach higher rounds. Participants who scored 1 standard deviation higher on the Grit-S than same aged peers were 38% more likely to advance to further rounds. Results also indicated that experience in prior Scripps National Spelling Bee competitions and weekend hours of practice mediated the relationship between grit and the final round of the contest

Duckworth, et al., (2009) explored why some teachers are dramatically more effective than others and suggested that positive traits such as grit contribute to teacher effectiveness. Grit was defined as perseverance and passion for long term goals. In this longitudinal study, 390 novice teachers in low-income districts completed self-report questionnaires assessing grit, as well as optimism and life satisfaction, prior to the school year. All three traits predicted teacher effectiveness as measured by academic gains made by students over the course of a school year. Teachers who were one standard deviation higher in grit were 31% more likely to outperform their less gritty peers. However, in a simultaneous ordinal regression model, only grit and life satisfaction predicted teacher performance, suggesting that these positive traits play an important role in how effective teachers are in the classroom.

In a longitudinal study of Scripps National Spelling Bee contestants, Duckworth et al., (2011) hypothesized the superior performance of grittier spellers was attributed to greater

engagement in deliberate practice. Deliberate practice involved engaging in a focused, typically planned training activity designed to improve some aspect of performance. Grit was defined as the tendency to pursue long-term challenging goals with perseverance and passion. A total of 190 finalists in the 2006 Scripps National Spelling Bee participated in this study. All participants were mailed consent forms, self-report questionnaires, and pre-stamped return envelopes. Grit was assessed with the Short Grit Scale, an eight-item self-report questionnaire with established construct and predictive validity. Participants endorsed items indicating consistency of urges (e.g., “I have been obsessed with a certain idea or project for a short time but later lost interest”), and consistency of effort over time (e.g., “Setbacks don’t discourage me”). Items were rated using a 5-point Likert-type scale (5 = very much like me, 1 = not at all like me). The observed internal reliability for the Short Grit Scale was $\alpha = .82$. Deliberate practice was operationally defined as studying and memorizing words while alone. Subjects were asked to distinguish between study activities that required memorizing words alone and those during which they were somehow tested. They provided their study history of these two techniques, answered questions about leisure time reading, and gave their feelings towards the use of verbal activities. Results found that grittier spellers accumulated more deliberate practice and more time being quizzed. Deliberate practice time predicted spelling performance and mediated the relationship between grit and spelling performance. These findings proposed grit enabled contestants to persist with practice activities that were less enjoyable, but more effective for winning.

Claire Robertson-Kraft (Robertson-Kraft & Duckworth 2013) created a new 7-point grit rubric to measure teacher grit. This rubric was not related to Grit-S. The rubric was developed from a previous one used in studies to measure sustained perseverance and passion in college activities. While piloting several different rubrics for coding grit, researchers discovered that a 7-

point rubric captured more systematic variation in performance. Coders assigned one point for college activities or work experience in which participation lasted for a total of at least two years. They assigned activities with a moderate level of achievement an additional point, and activities with a high level of achievement two additional points. Moderate achievements were defined as a leadership position or award within an activity, though not the highest form of either (e.g., secretary of an organization or assistant manager of a restaurant). High achievements were reserved for those individuals running organizations or reaching the highest honor within an activity or work experience (e.g., president, captain or the MVP of a team, employee of the year). For any given activity, participants could receive from 0 points (i.e., involvement less than two years) to 3 points (i.e., multi-year involvement with high achievement). To calculate a final grit score, points for the two highest scoring activities were summed, making each teacher eligible to receive a score between 0 and 6.

The next phase of their research examined whether retention and effectiveness among novice teachers in their first and second year of teaching were predicted by differences in grit. The sample size included two longitudinal samples of novice teachers assigned to schools in low-income districts. Raters blind to outcomes followed the 7-point rubric to rate grit from information on college activities and work experience extracted from teachers' resumes. Teacher effectiveness was measured in terms of students' one-year academic gains. Independent-samples t-tests and binary logistic regression models were used to predict teacher effectiveness and retention from the grit ratings as well as from other information (e.g., SAT scores, college GPA, interview ratings of leadership potential). Results indicated that teachers in their first and second year in the classroom who demonstrated high levels of grit academically outperformed their less gritty colleagues and were more likely to remain in the classroom for the school year. The variables of SAT scores, college GPA, and interview ratings of leadership potential did not

predict teacher effectiveness or retention. However, grit predicted teacher effectiveness and teacher retention. These findings provide insight into what leads some novice teachers to outperform others, remain committed to the teaching profession, and have success in meeting the rigorous demands of teaching.

Grit versus Conscientiousness

Grit has been found to be related to conscientiousness (Duckworth et al., 2007; Duckworth & Quinn, 2009). Grit overlaps with achievement aspects of conscientiousness but differs in its emphasis on long-term stamina rather than short-term intensity. In particular, grit entails the capacity to sustain both effort and interest in projects that take an extended amount of time to complete (Duckworth & Quinn, 2009).

Grit versus Self-Discipline / Self-Control

Duckworth and Seligman (2006) used the terms self-discipline and self-control interchangeably, defining both as “the ability to suppress prepotent responses in the service of a higher goal and further specifying that such a choice is not automatic but rather requires conscious effort” (p. 199). According to Seligman (2011), self-discipline has an extreme trait called grit. However, grit differs from self-control in its specification of consistent goals and interests over time. According to Duckworth et al., (2007), “An individual high in self-control but moderate in grit may, for example, effectively control his or her temper, stick to his or her diet, and resist the urge to surf the Internet at work—yet switch careers annually (p. 1089). Further, she stated “The gritty individual not only finishes tasks at hand but pursues a given aim over years” (p. 1089). These ideas point to self-control being a poor predictor of success when long-term goals are concerned.

Grit versus Need for Achievement

The need for recognition can be considered a hindrance by some in long-term success. Duckworth et al., (2007) stated, “Whereas individuals high in need for achievement pursue goals

that are neither too easy nor too hard, individuals high in grit deliberately set for themselves extremely long-term objectives and do not swerve from them – even in the absence of positive feedback”(p. 1088). Gritty individuals tend to stay the course even when times are tough.

Grit versus Resilience

Robertson-Kraft and Duckworth (2013) stated “Conceptually, grit was distinct from resilience, a term generally accepted to be a construct describing successful adaption to overwhelming adversity and stress” (p. 9). While measures of resilience often include perseverance, they also tend to include other elements such as equanimity, self-reliance, meaningfulness, and existential aloneness (Wagnild & Young, 1993). Specifically, resilience depends on the stability of an individual’s interests while grit entails consistency of interests and goals over time.

Possible Negative Effects of Grit

To date there is no empirically tested data related to whether grit is always a good thing, alternatively, whether there is some cost to being gritty that must be traded off against its benefits. There may be contexts in which grit produces lower achievement (Duckworth, 2013). Duckworth (2013) suggested that, “grittier individuals may be more vulnerable to the sunk-cost fallacy, less open to information that contradicts their present beliefs, or otherwise handicapped by judgment and decision-making biases” (p.2). The sunk-cost fallacy represents a no win situation. Further, she wrote, “grittier individuals by staying the course may sometimes miss out on new opportunities because they are so focused on their original goal” (p. 2). These issues, while not yet confirmed, are important when reviewing the literature.

Summary of Grit

The research on grit was drawn from studies in education, the military, and elite competitions. Grit was linked to teacher effectiveness, military retention, and the winning of

challenging competitions. Generally, the short grit scale (Grit-S) was the measure used. The definition for grit in the current study, “perseverance and passion for long-term goals” is supported across the literature.

Commitment

Early organizational effectiveness research centered on improving employee turnover, work productivity, and job satisfaction (Porter & Steers, 1973; Porter et al., 1974; Steers, 1975, 1977). Commitment is an organizational phenomenon. Porter et al., (1974) defined organizational commitment as the strength of an individual’s identification and involvement in an organization. According to the authors, commitment can be characterized by three factors: a strong belief in and acceptance of the organization’s goals and values; a willingness to exert considerable effort on behalf of the organization; and a strong desire to maintain membership in the organization (p. 604).

Porter et al, (1974) studied patterns in organizational commitment and job satisfaction related to job turnover among psychiatric technician trainees from a west coast hospital. The study took place over a 10.5 month period. Psychiatric technician trainees were chosen due to a long history of high turnover rate in that position. The Organizational Commitment Questionnaire (OCQ) and the Job Descriptive Index (JDI) were the assessment instruments used during four time periods. The 15-item OCQ measured the degree to which subjects felt committed to the organization. Subjects responded to items using a 7-point Likert-type scales ranging from “strongly disagree to “strongly agree”. Results indicated that individual attitudes about the organization may be more important than specific attitudes toward one’s particular job. Furthermore, committed workers were more likely to perform better than less committed ones.

Expanding upon the previous study, Mowday et al. (1979) administered the OCQ to 2,563 employees working in a variety of jobs in nine different organizations. The sample was purposely broader than the original in order to represent a wide variety of the working population. It consisted of the following groups:

Public employees – A total of 569 mostly female subjects working in lower level clerical and health care-related jobs completed questionnaires. A small number of supervisory and administrative personnel also participated in the study.

Classified university employees – There were 243 classified university employees who participated in this study. Subjects were employed in maintenance, secretary, and administrative positions.

Hospital employees – A total of 382 hospital workers employed in administration, nursing, service work, and clerical positions participated in the study.

Bank Employees – There were 411 female bank employees who participated in this study. Subjects were employed as tellers, secretaries, and bookkeepers.

Telephone company employees – A sample of 605 mostly male employees working as repairmen, station installers, and report clerks participated in this study.

Scientists and engineers – There were a total of 119 scientists and engineers that participated in this study. This group consisted of scientists and engineers involved in research projects, technical jobs, and administrative positions.

Auto company managers – A total of 115 auto company managers with advanced degrees participated in this study.

Psychiatric technicians – This group is comprised from the Porter et al., (1974) study.

Retail manager trainees – There were 212 retail management trainees who participated in this study. Subjects were recent college graduates entering a 9-12 month training program. (Mowday et al., pp. 229-230)

The results held that estimates of internal consistency were good with coefficient α ranging from .82 to .93. All the items on the OCQ were positively correlated to the total score of the instrument and a factor analyses indicated all items measured a single common underlying

construct. The OCQ correlated well (or better than in some cases) with employee behaviors such as job satisfaction as any other attitudinal measure. The OCQ also was found to be a predictor of employee turnover and group level performance.

Glisson and Durick (1988) identified the differences between predictors of job satisfaction and predictors of commitment within the same work environment using the job, the organization, and worker characteristics. Their study sampled 319 individuals from 22 different human service organizations using questionnaires. Findings revealed job satisfaction and commitment were significantly correlated. Specifically, role ambiguity and skill variety were the best predictors of job satisfaction, but job characteristics were also significant. Characteristics of the worker were found to be an excellent predictors of commitment and poor predictors of job satisfaction. However, the best predictor of commitment was education: the higher the educational level, the stronger the commitment. As predicted, the characteristics of the organization were found to be excellent predictors of commitment. Specifically, the qualities of the job leader, organizational age, and education were found to be the best indicators of organizational commitment. Leadership and organizational age are characteristics of the organization, while education relates to the individual worker.

In a groundbreaking educational study, Hoy, Tarter, and Bliss (1989) were the first to use a nine-item version of the OCQ to determine what behaviors of the school's principal were most likely to develop organizational commitment among teachers. The nine-item version was first used by Mowday and his colleagues with four occupational groups. The alpha coefficients for this version of the instrument were at .91. Commitment was defined in terms of individuals identifying with their organization, its goals, and having desire to exert extra effort to accomplish these goals. The study consisted of 72 secondary schools sampling 1,083 teachers. Four

measures of leadership behavior from the Organizational Health Index (OHI) and two from the OCSQ-RS indicated the behavior of the principal. The results indicated that principals with upward influence, who initiate structure and demonstrate consideration in their behavior, who provide supportive social relations, and who furnish resource support have committed faculties. Examples of these behaviors on the scales included: “The principal gets what he or she wants from superiors (Principal Influence), “The principal maintains definite standards of performance (Initiating Structure), “The principal puts suggestions made by the faculty into operations (Consideration), “The principal sets an example of working hard himself/herself (Supportive Principal Behavior), and “Extra materials are available if requested (Resource Support). However, principals who exhibit directive behavior by monitoring everything teachers did not have committed faculties.

Using the previous sample, Tarter, Hoy, and Kottkamp (1990) reasoned that overall school health is positively related to teachers’ organizational commitment. Furthermore, each element of health was also predicted to be positively related to teachers’ organizational commitment. The Organizational Health Inventory (OHI) was used to measure school health. Commitment was measured using the OCQ. Both hypotheses were confirmed by correlation coefficient testing. Additional regression testing supported a positive relationship between school health and commitment. Principals were found to be the major factor in the commitment level of teachers.

Research from non-educational settings has also shown leadership styles have an impact on subordinate organizational commitment. Bycio, Hackett, and Allen (1995) conducted research in the health care field using nurses as subjects. Transformational leadership behaviors were found to be highly associated with levels of subordinate organizational commitment.

Transformational leadership behaviors outperformed transactional leadership factors in predicting organizational commitment.

Leadership has been shown to influence teacher commitment. Hypothesizing that transactional leadership could predict commitment to the school, Koy, Steers, and Terborg (1995) sampled teachers and administrators from 100 secondary schools. Transformational leadership was defined as a leader possessing charismatic leader behavior, individualized consideration, and intellectual stimulation. Commitment was defined using the work of Mowday et al., (1979). Organizational commitment was measured using the OCQ. Leadership was measured using Form 5-S of the Multifactor Leadership Questionnaire (MLQ). Transformational leadership was found to have a more significant effect on organizational commitment than transactional leadership. This finding suggests that transformational principals are more likely to have committed teachers.

Hulpia, Devos, and Can Keer (2013) recently examined the relationship between school leadership and teachers' organizational commitment. The study involved 1,522 teachers from 46 large secondary schools. Commitment was defined using Mowday et al., (1979) research. The researchers used the Distributed Leadership Inventory (DLI) and the OCQ to gather data. Teachers' organizational commitment was mainly related to the quality of the supportive leadership, cooperation within the leadership team, and participative decision making. The major implication for this study was that teachers were more likely to demonstrate organizational commitment when the principal engaged in distributed leadership.

Summary of Commitment

The cited research comes from schools and business organizations. Commitment was correlated with job satisfaction, healthy school organizations, and leadership behaviors that supported the context of subordinate work. In the current study, as in all the cited research,

commitment is defined as the strength of an individual's identification and involvement in an organization's leadership styles. It is defined as an individual's adherence to values, his desire to remain in the organization, and his willingness to exert extra effort. The OCQ is the most accepted instrument used to measure this concept.

Trust

Trust is a key component in organizations. While there are many definitions and views of trust (Hoy & Tschannen-Moran, 1999), this study follows research conducted by Hoy and his colleagues in the educational field.

Early Research

Using the work of Rotter (1967) and Golumbiewski and McConkie (1975) as a foundation, Hoy and Kuper-Smith (1985) defined trust as "a generalized expectancy held by the work group that the word, promise, and written or oral statement of another individual, group, or organization can be relied upon" (p. 2). Specifically they defined three aspects of trust:

1. Faculty trust in the principal – The faculty has confidence that the principal will keep his/her word and will act with the best interest of teachers in mind;
2. Faculty trust in colleagues – The faculty believes that they can depend on each other in difficult situations; teachers can rely on the integrity of their colleagues;
3. Faculty trust in the school organization – The faculty can rely on the school district to act in its best interest and can count on the administration to be fair (p. 2).

After defining trust, Hoy and Kuper-Smith (1985) developed a 21-item instrument called the Trust Scales (TS) to measure each part of the concept. A total of 944 teachers in 46 schools responded to questionnaires to test construct validity of the TS and explore the relationship between principal behavior and trust. A relationship between trust and principal authenticity was

also anticipated. Principal authenticity was measured using the Leader Authenticity Scale (LAS). The LAS contained items such as “The principal is willing to admit mistakes when they are made”, “The principal manipulates the teachers”, “The principal is a person first and an administrator second”. As predicted, all three TS were found to be reliable and correlated with each other. Additionally, all dimensions of trust were positively related to authentic principal behavior.

An extensive literature review by Hoy and Tschannen-Moran (1998a) examined all the previous research on trust. From their review, they concluded that trust could be defined as “one party’s willingness to be vulnerable to another party based on the confidence that the latter party is benevolent, reliable, competent, honest, and open” (p. 556).

- *Benevolence* – confidence that one’s well-being will be protected by the trusted party.
- *Reliability* – the extent to which one can count on another person or group.
- *Competency* – the extent to which the trusted party has knowledge and skill.
- *Honesty* – the character, integrity, and authenticity of the trusted party.
- *Openness* – the extent to which there is no withholding of information from others (Hoy & Tschannen-Moran, 2003, p. 186).

In 1998, Hoy and Tschannen-Moran wanted to develop valid and reliable measures of faculty trust in schools. To measure trust, the previously mentioned TS developed by Hoy and Kupersmith (1985) was utilized. The researchers added new items to measure competency and openness which were not in the original instrument. Following a panel review and field test, 48 items were used to pilot the TS. Using a sample of 50 teachers from 50 different schools in five

states, the pilot study yielded a 37-item instrument that reliably measured three types of faculty trust: Trust in the Principal, Trust in Colleagues, and Trust in Clients.

To further test the new version of the TS, Hoy and Tschannen-Moran (1998b) hypothesized that all three kinds of trust were related and that faculty trust was positively related to collaboration with parents. A final sample of 898 teachers from 45 elementary schools responded to the instruments. A factor analysis resulted in two items being eliminated from the TS. The final version contained 35 items. The three dimensions of trust were moderately related to each other. For example, when teachers trust their principal, they are more likely to trust each other. Again supporting the hypothesis, all three types of trust were related to parent collaboration. However, faculty trust in clients was the greatest indicator of parent involvement in schools. Teachers who trust parents are more likely to allow them to be involved at school.

The TS were later retested at the high school level (Hoy & Tschannen-Moran, 2003). Using a sample of 97 high schools, a reliable instrument containing three fewer items was developed for the secondary level. An effort was made to consolidate the two versions of the TS into one instrument. After a comparison of the factor loadings on the items from both samples, the final version resulted in a 26 item measure called the Omnibus T-Scale. The scale can be used at the elementary or secondary level. It successfully measured three aspects of faculty trust: faculty trust in colleagues, in the principal, and in clients.

Trust in the Principal

Teachers are influenced by the way their principal works. Hoy and Tschannen-Moran (2003) stated, “When teachers trust their principal, they are also more likely to trust each other and their clients” (p.203). For faculties to trust their principal, they need to believe that they can depend on them to act in their best interest (Hoy, et al., 1992). Reflecting on trust in the principal, Forsyth, Adams, and Hoy (2011) suggested, “For schools, trust in principal is

predicted to have direct and indirect benefits for both individual and organizational performance. Trust in the principal maximizes teacher effort and performance and helps to focus collective energy on what is important” (p. 157). These ideas emphasize the importance of trusting one’s principal.

Tarter and Hoy (1988) explored a relationship between two aspects of trust and organizational health. Principals and teachers from 75 different schools were surveyed using the Organizational Health Inventory (OHI). Trust was measured using two of the trust scales developed by Hoy and Kupersmith (1985). They measured trust in the principal and colleagues. As predicted, faculty trust in the principal and faculty trust in colleagues were both positively related to organizational health. Principal consideration and institutional integrity were the best predictors of faculty trust in the principal, while morale and principal influence predicted faculty trust in colleagues more than any other variables. Tarter and Hoy (1988) associated healthy schools with teachers who trust each other and believe in the principal. They further implied that organizational health and trust can lead to teachers being ready to adapt to change and fosters academic achievement.

Social relationships are vital to daily operations of a school. A 1989 study by Tarter, Hoy and Bliss projected that organizational promotes trust. The Organizational Climate Description Questionnaire, Rutgers Secondary (OCDQ-RS) and the TS were used as research instruments in this study involving 72 secondary schools. The 34-item OCDQ-RS measures aspects of school climate in four dimensions: supportive, directive, engaged, and frustrated. Items on the instrument are rated along a four-point Likert scale ranging from “rarely” “to very frequently”. Correlational analysis confirmed that teachers’ trust in the principal was positively related to supportive principal behavior. Specifically, teachers trust principals who they consider to be hard

working and genuinely helpful to them. Not surprisingly, principals who were found to be rigid, domineering, and interfering were distrusted among teachers. Furthermore, multiple regression analysis showed that supportive, not directive leadership of the principal predicted trust in the principal.

Hoy, Tarter, and Witkoskie (1992) explored the effects of supportive principal behavior on trust and effectiveness. Supported principal behavior was hypothesized to be related to trust and effectiveness. Trust in the principal and faculty trust in colleagues were also assumed to be related to effectiveness. They sampled 44 elementary schools using the OCDQ-RE and the TS. The OCDQ-RE measured supportive leadership and faculty collegiality. Supportive principal behavior was defined as behavior that reflects a concern for teachers. All hypotheses were confirmed except for trust in the principal being related to effectiveness. Further testing pointed to only faculty trust in colleagues being linked to school effectiveness. This suggested teachers who trust each other are the best indicator of school effectiveness. However, the researchers acknowledged that trusting the principal could indirectly influence trust in colleagues.

Tarter, Sabo, and Hoy (1995) replicated the previous study using 87 middle schools. They reported that faculty trust in the principal is related to school effectiveness. In the prior study, only faculty trust in colleagues had been linked to school effectiveness. Supportive principal behavior was related to both faculty trust in the principal and also faculty collegiality. As in the prior study, faculty trust in colleagues was found to be related to effectiveness. Supportive principal behavior promoted trust in the principal, while teacher collegiality fostered trust among colleagues. The authors suggested that it takes both to promote school effectiveness.

Exploring a relationship between trust and collaboration, Tschannen-Moran (2001) used a trust and collaboration survey on a sample of 45 schools. Specifically, the collaboration levels

of principal, colleagues, and parents were compared to their corresponding level of trust. In each case, the level of collaboration was significantly related to the level of trust. Faculty trust in the principal was deemed a major contributor to a having a collaborative atmosphere in a school. All three facets of trust were recommended as essential for generating nurturing collaborative relationships.

Hoy and Tarter (2004) projected that principal collegial leadership would predict faculty trust in the principal, and in turn, independently enhance organizational justice. They also thought professional teacher behavior would be correlated with faculty trust in colleagues and thus be related to organizational justice. Organizational justice was described as leader behavior that is equitable, sensitive, respectful, consistent, free of self-interest, honest, and ethical. A total of 75 middle schools participated in the study that used an organizational justice index (OJI), two subsets of the Omnibus T-scale, and the organizational climate index (OCI). As predicted, faculty trust in colleagues and faculty trust in the principal were significantly related to organizational justice. However, the authors stated that after further examination, justice was shown to predict trust. Although faculty trust in colleagues and faculty trust in the principal predict organizational justice, the relationship clearly can be seen to be reciprocal, that is, as justice producing trust. Even more important than trust in colleagues, principals who display certain behaviors tied to organizational justice often obtain the trust of teachers.

Tschannen-Moran (2009) proposed the idea that schools should work to be both bureaucracies and professional organizations, or professional bureaucracies. A study was conducted to test how trust and the principal's leadership orientation correlated with teacher professionalism, the author assessed 2,355 middle school teachers' perspectives in three areas: how they viewed professionalism among the staff, the principal's leadership style, and the

trustworthiness of staff members, the administrators, and the patrons (students and parents). The author hypothesized teachers would demonstrate greater professionalism in their behavior when leaders demonstrated a more professional orientation in their management of work processes and greater trust would be evident throughout the organization. The professional orientation of a principal was represented as the degree to which a principal leads a school as a professional organization as opposed to as a machine bureaucracy. Professional orientation was measured by administering the Enabling Structure Scale, a tool that captures teachers' perceptions of "how the administrative authority is exercised by school leaders" (p. 232). Trust was defined as faculty members' willingness to be vulnerable because of a belief in the trustworthiness of the other party (benevolence, honesty, openness, reliability, competence) and was measured using the six point Omnibus T-Scale. Teacher professionalism, or teachers' ideas of the professionalism of their colleagues (including views of their colleagues' commitment to the school and the students), were measured with the subscale "Teacher Professionalism" from the five point Likert-type scale of the School Climate Index. The professional orientation of a principal along with faculty trust made independent contributions to the explanation of the variance regarding teacher professionalism. The findings indicated that the more enabling the principal leadership is and the greater the degree of trust the teachers have in the principal the greater degree of teacher professionalism. Trust was advocated as essential to establishing and nurturing teacher professionalism.

Summary of Trust

The research reviewed links trust in the principal to school health, climate, collaboration, school effectiveness, organizational justice, and improved teacher professionalism. This study will use Tschannen-Moran and Hoy's (1999) widely accepted definition of trust being "one

party's willingness to be vulnerable to another party based on the confidence that the latter party is benevolent, reliable, competent, honest, and open". Typically, The Omnibus T-scale is the accepted instrument used in measuring this this concept.

Theoretical Framework

A true leader will get others to follow him. Charismatic leaders are easy to adore. As a historical treatment, The Great Man Theory fits as a theory that provides some answers to why subordinates follow leaders. However, it is the nature of the interaction and the positive outcomes elicited that are significant. As leadership has evolved, so too has the social science research into areas such as transformational leadership. Burns (1978) professed that transformational leadership was the foregoing of self-interest by the leader and the follower to cause a particular goal or outcome that will benefit everyone. At its core, transformational leadership is about leaders, followers, and what develops out of the relationship between the two parties. This is not a study of The Great Man Theory or of transformational leadership, but rather a historical literature review of how one could look at the importance of the interchange between leaders and subordinates.

This study is based on the framework of Leader-Member Exchange Theory (LMX). The basic concept of LMX theory is that effective leadership processes occur when leaders and subordinates are able to develop mature relationships and gain access to the benefits these partnerships bring (Graen & Uhl-Bien, 1991). The exchange relationship between leaders and subordinates is usually characterized by things such as mutual trust, respect, affection, support, and loyalty (Yukl, 2010). Further, LMX relationships are associated with better performing and more satisfied workers who are committed to the organization (Yukl, 2010).

LMX is grounded in social exchange theory. This theory suggests that subordinates feel

an obligation to reciprocate high quality relationships and that dyadic relationships are developed over time through many exchanges (Blau, 1964; Goulder, 1960). Research has indicated LMX has significant influences on outcomes such as task performance, satisfaction, turnover, and organizational commitment (Gerstner & Day, 1997).

This study argues that the grit of the principal influences commitment of the teachers and the trust of the faculty in the principal. The passion and perseverance of the principal to accomplish long-term goals should elicit a norm of reciprocity from the faculty. A norm of reciprocity holds that people feel obligated to return a good deed or, in this case, when the principal consistently shows extra effort in performing his or her duties at school, faculty members should respond with commitment and trust (Goulder, 1960).

Rationale for Hypothesis

The purpose of this section is to explain the theoretical rationale of the relationships hypothesized in this study. Grit of the principal will serve as the dependent variable. Organizational commitment and trust in the principal will be the two independent variables. Further, socioeconomic status (SES) will be used as a control variable. Figure 1 below demonstrates the hypothesized relationships between the independent and dependent variables of this study.

In creating a hypothesis the variables should be identified by name, a relationship should be specified, and the unit of analysis should be appropriate. Hoy (2010). Using these guidelines, three hypotheses will drive the study:

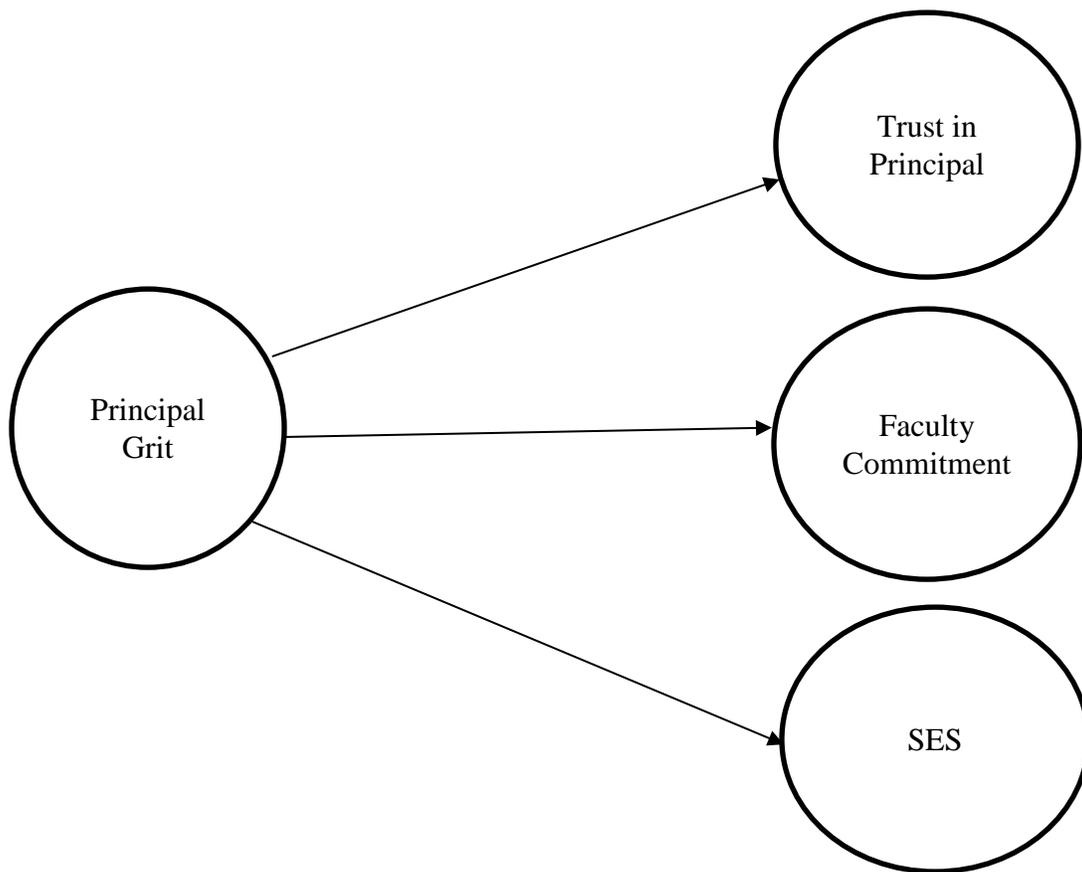
H₁: There is a positive correlation between principal grit and faculty trust in the principal.

H₂: There is a positive correlation between principal grit and organizational commitment.

By regressing grit onto both faculty trust in the principal and commitment, one would be able to determine which of the two variables had a greater relationship to grit. The literature on these variables does not give a clear direction to whether commitment or trust would be independently larger predictors of grit. Therefore, the hypothesis that tests the joint and independent relationship of commitment and trust to grit would be the regression hypothesis.

H₃: Faculty trust in the principal and organizational commitment will jointly and individually be related to principal grit.

Figure 1. A proposed theoretical model of Principal Grit, Teacher Trust in the Principal, Organizational Commitment, and SES



Summary

This chapter has given a research history of grit, organizational commitment, and trust. A framework using the variables was developed. Finally, hypotheses were derived to test the theoretical framework.

CHAPTER 3: METHODOLOGY

Overview

This chapter describes the sample, design, data collection methods, measures, and statistics that will be used in the current study. This outline follows Hoy's (2010, p. 115) suggested components in a methodology chapter.

Research Design

The unit of analysis for this study was the school. Survey data was collected from individual teacher responses to the TTITP Scale the FOC Scale. Survey data was also collected from individual principals from the Grit-S Scale and all data were entered into the Statistical Package for the Social Science (SPSS) software program. For the purposes of this study, a post hoc analysis of non-experimental data was conducted. For the regression, the dependent variable Principal Grit was regressed on independent variables of trust in the principal and faculty organizational commitment, and SES to find the partial correlations. Significant betas between the elements of trust and commitment were identified. No prediction was made regarding SES since it was only being used as a control variable.

Sample

All of the 233 public high schools in Alabama were invited to participate in this study. A projected minimum of 75 schools was desired. However, a total of only 53 high schools responded to a request of participation and only 42 schools completed the data necessary for entry. Principals and teachers were surveyed using Qualtrics. At each school, three attempts were made to obtain results from the two teacher instruments (Omnibus T-scale, OCQ) and the

principals Grit-S instrument.

Data Collection Methods

Approval was obtained from each Superintendent of the schools participating in the study. After this permission was granted, approval of each school principal was sought. Following this approval, surveys were emailed to the principal and teachers of each school via Qualtrics. Data was collected from the participants electronically at their convenience. Only certified teachers participated in this study.

Statistics

Descriptive statistics analyzed characteristics of the sample and respondents. The independent variables for this study were organizational commitment and trust in the principal, while the dependent variable was principal grit. The unit of analysis was the school; therefore individual respondent scores were aggregated to the school level for the independent and dependent variables of this study. Hoy and DiPaola (2007) advocated the use of aggregating scoring as a more appropriate procedure than using total analysis (p.33). Simple correlations were used to test relationships between all variables. Multiple regression analysis was used to determine the individual and collective relationships between the independent variables and the dependent variable.

Measures

Measures for this study included the 8-item grit scale (Grit-S), The Omnibus T-Scale, and the Organizational Commitment Questionnaire (OCQ). All instruments are described in detail below and attached in Appendixes A - C.

8-item grit scale. The Short Grit Scale is an efficient brief, 8-item measure of grit. Duckworth and Quinn (2009) identified items with the best predictive validity across four

samples originally used in Duckworth et al. (2007). Sample questions include “new ideas and projects sometimes distract me from previous ones” and “I often set a goal but later choose to pursue a different one”. Item-level correlations were computed with outcomes for all four samples. Points are assigned on a 5-point scale ranging from “very much like me” to “not like me at all”. The correlations were ranked within each domain. The resulting 8-item Grit-S displays acceptable internal consistency, with alphas ranging from .73 to .83 across all the samples. The Consistency of Interest subscale shows adequate internal consistency with alphas ranging from .73 to .79. Alphas are somewhat lower for Perseverance of Effort, with values ranging from .60 to .78. Table 1 provides summary statistics for the grit scale using Duckworth’s research discussed in Chapter 2.

Table 1
Summary Statistics for Duckworth's Grit Scale Across Studies

Study	α	N	M	SD
Adults Aged 25 and older (Study 1)	0.85	1,545	3.65	0.73
Adults Aged 25 and older (Study 2)	0.85	690	3.41	0.67
Ivy League Undergraduates	0.82	138	3.46	0.61
West Point Cadets Class of 2010	0.77	1,218	3.78	0.53
West Pont Cadets Class of 2010	0.79	1,308	3.75	0.54
National Spelling Bee Finalist	0.8	175	3.5	0.67

Omnibus T-Scale. The initial trust scales developed for measuring trust at the elementary level by Hoy and Kupersmith (1985) were later retested at the high school level by Hoy and Tschannen-Moran (2003). They used a sample of 97 high schools to develop a reliable instrument containing three fewer items. An effort was made to consolidate the two versions of the trust scales into one instrument. A comparison of the factor loadings was conducted on the items from both the elementary and secondary samples. The final version resulted in a 26 item instrument called the Omnibus T-Scale. Sample items of the scale include, “teachers in this school trust the principal” and “the principal in this school keeps his or her word”. Items are responded to on a 6-point Likert response set from strongly agree to strongly disagree. The alpha coefficients of reliability were high in both samples for trust in the principal (.98), trust in colleagues (.93), and trust in clients (.93). The measure is distinct in that it can be used at the elementary or secondary level.

Organizational Commitment Questionnaire (OCQ). Commitment was measured using the Organizational Commitment Questionnaire (OCQ) (Mowday, et al 1979). It is a 15-item questionnaire that measures the degree of involvement respondents have in their organization. Estimates of internal consistency of the instrument are good with coefficient α ranging from .82 to .93. Items are measured on a 7-point Likert-type scale ranging from 7 = strongly agrees to 1 = strongly disagree. Some of the items on the OCQ include, “I am willing to put in a great deal of effort beyond that normally expected in order to help” and “I feel very little loyalty to this organization”.

Socio-Economic Status (SES). The SES of each school was determined by using data from each school’s 2014 Free and Reduced Lunch Report as determined by the Alabama State Department of Education (2014). The percentage of students not receiving a free and reduced

meal rate was used as an indicator in this study as an indicator of each school's SES.

Summary

The methods for this study tested the potential effects principal grit has on organizational commitment and trust in the principal. Although all high schools in Alabama were invited to participate in this study, only 42 completed the necessary data in order to participate. The questionnaires pertinent to this study were the Grit-S, The Omnibus T-Scale, and the OCQ. The data were collected and entered into SPSS for analysis. The results and research findings will be presented in Chapter 4.

CHAPTER 4: DATA ANALYSIS AND RESULTS

The purpose of this chapter is to present the findings of the study concerning the relationships between principal grit, trust in the principal, and faculty organizational commitment in Alabama public high schools. The findings are based on survey analysis described in the previous chapter. Descriptive statistics for the variables, characteristics of the sample, measures, and results of the hypothesis testing will be presented.

This chapter is presented into three sections. The first section provides descriptive statistics for the respondent demographics and also for each research variable. The second section presents findings for correlations among the research variables. Section three provides the results of hypothesis testing. The fourth section contains a brief summary of the data and findings of the study.

Descriptive Statistics

The information in this section describes both demographic and variable characteristics. All variables for this study have been aggregated to the school level.

Descriptive statistics for the research variables are provided in Table 1. The statistics include the number of sample schools (N), mean (M), standard deviation (SD), and low and high scores. Data were aggregated at the school level. The mean scores for the variables principal grit, teacher trust in the principal, and teacher organizational commitment were calculated first by aggregating all responses to the school level and then calculating means. School means were

then used to calculate an overall mean for each variable. The overall mean scores for SES are the results of the mean SES from each of the 42 schools who participated.

Table 2
Demographics for Research Variables (N=42)

Variable	M	SD	Low	High
PG	3.79	0.456	2.88	4.5
TITP	4.77	0.654	2.5	5.78
FC	5.8	0.404	4.35	6.76
SES	52.4	14.99	13.15	89.79

All of the survey instruments contained respondent demographic questions. For the principal, the demographics included (a) total years' experience as a principal, and (b) gender of the principal. The teacher demographics were (a) total years teaching experience (b) gender of the teacher. Within the 42 principal respondents there were 36 (86 %) male respondents and 6 (14 %) female respondents. From the 701 teacher respondents, 209 were males (30%) and 492 were females (70%). This data is comparable with information from The State Department of Alabama which identifies a current total of 46, 332 teachers, with 9,564 (21%) of them being male and 36,668 (79%) female.

Muijs (2004) proposes that instruments that have a Cronbach's coefficient alpha of .70 or greater may be deemed reliable. All three instruments used in this study met this standard. Considering the school as the unit of analysis, reliability for each instrument was testing using the aggregate score of the school. Results of the tested indicated the following: PG (.72), TITP (.91), and FOC (.98). Table 3 illustrates reliability of these three instruments.

Table 3

Alpha Coefficients of Reliability Using School as the Unit of Analysis (N=42)

Variable	Instrument	Number of Items	Cronbach's Alpha	N
Principal Grit	Grit-S	9	0.72	42
Trust in the Principal	Omnibus T-Scale	8	0.91	42
Faculty Organizational Commitment	OCQ	8	0.98	42

Hypothesis Testing

Correlational Analysis

Correlation coefficients were computed to investigate an existence of significant relationships between the variables. Possible relationships between descriptive statistics and the dependent and independent variables were also explored. The independent variable for the first hypothesis is principal grit. The dependent variable for the first hypothesis is teacher trust in the principal.

H1: There is a significant positive correlation between Principal Grit (PG) and Teacher Trust in the Principal (TTITP). As PG increases TTITP will increase. Correlational analysis did not support the first hypothesis (See table 4). There was no significant relationship found between PG and TTITP ($r = .010$, $p = .951$).

H2: There is a significant positive correlation between Principal Grit and Teacher Organizational Commitment. As PG increase Faculty Organizational Commitment (FOC) will increase. The independent variable for the second hypothesis is principal grit. The dependent variable for the second hypothesis is teacher organizational commitment. Correlational analysis did not support the second hypothesis (See table 4). There was no significant relationship found

between PG and FOC ($r = 0.047$, $p = .767$). A strong relationship was found between TITP and FOC ($r = .811$, $p < .01$). As teacher trust in the principal increases, organizational commitment will increase.

Table 4
Correlational Analysis of PG, TTITP, and FOC

	PG	TITP	FOC
PG	1	0.010	0.047
TITP	0.010	1	.811**
FOC	0.047	.811**	1

Note ** $p < .01$

Socioeconomic status (SES) was added as a control variable. SES was calculated by subtracting the percentage of students eligible for free or reduced lunch from one (see Table 5). There was no significant correlation found between PG and SES ($r = -0.015$, $p = .924$), TTITP and SES ($r = 0.195$, $p = .21$), or FOC and SES ($r = 0.258$, $p = .094$).

Table 5
Correlational Analysis with SES added as a Control Variable

	PG	TITP	FOC
SES	-0.015	0.195	0.258

Note ** $p < .01$

As previously stated, the grit scale consists of two subscales identified as perseverance of effort and consistency of interest. Correlational analysis did not support a significant relationship between the perseverance of effort subscale and Trust in the Principal ($r = -.074$, $p = .640$), Faculty Organizational Commitment ($r = .060$, $p = .705$), or SES ($r = -.104$, $p = .705$) (See Table 6). Correlational analysis also did not support a significant relationship between the consistency of interest subscale and Trust in the Principal ($r = .078$, $p = .619$), Faculty Organizational Commitment ($r = .120$, $p = .120$), or SES ($r = .062$, $p = .692$) (See Table 7).

Table 6
Correlational Analysis of Grit Subscale Effort, TITP, FOC, and SES

	Effort Subscale	TITP	FOC	SES
Effort Subscale	1	-0.074	-0.06	-0.104
TITP	-0.074	1	.811**	0.195
OC	-0.06	.811**	1	0.258

Note ** $p < .01$

Table 7
Correlational Analysis of Grit Subscale Interest, TITP, FOC, and SES

	Interest Subscale	TITP	OC	SES
Interest Subscale	1	.078	.120	.062
TITP	.078	1	.811**	0.195
OC	.120	.811**	1	0.258

Note ** $p < .01$

Multiple Regression Analysis

Multiple regressions were used to further investigate Hypothesis 1 and 2 and to answer Hypothesis 3. For the purpose of running the multiple regression correctly, principal grit was entered as the dependent variable in the model. Measurements of TTITP, FOC, and SES were regressed on to PG in order to test the predictions of the hypothesis. An attempt was made to determine if these variables predict principal grit.

H1: There is a significant and positive correlation between Principal Grit and Teacher Trust in the Principal. As PG increase TTITP will increase.

H2: There is a significant and positive correlation between Principal Grit and Faculty Organizational Commitment. Grit was regressed onto the independent variable of Faculty Organizational Commitment.

Multiple regression was used to explore the possible relationship between Principal Grit, Teacher Trust in the Principal, and Faculty Organizational Commitment (see Table 7). PG was regressed onto the independent variables of TTITP and FOC. Hypothesis 1 was not supported. TTITP did not have a significant relationship on PG. The second hypothesis was not confirmed. There was no significant relationship found between FOC and PG.

H3: Faculty trust in the principal and organizational commitment will jointly and individually be related to principal grit.

SES was added as a control variable. Multiple regression analysis did not support Hypothesis 3 (see table 8). There were no significant relationships found between TITP, FOC, SES, and Principal Grit.

Table 8
*Summary of Regression Analysis for
 Variables Predicting PG*

Dependent variable: Grit	B	SE	β	Sig.
Predictor Variables				
TITP	-.058	.191	-.084	0.762
OC	.138	.313	.124	0.663
SES	.001	.001	.031	0.856

Note. $R^2 = .005$, Adjusted $R^2 = -.073$

Power Analysis

A post hoc power analysis for linear multiple regression was conducted using GPower Software 3.17 (Faul, Erdfelder, Buchner, & Lang, 2009). With a large effect size of .35, an alpha

of .05, a 3 predictor model, and with a sample size of 701 the achieved power was 1. There is less than a .05% chance this result is not representative of the population.

Summary

Correlational statistics were used to investigate Hypothesis 1 and 2. The results of the Pearson Correlations Coefficient did not support Hypothesis 1 and Hypothesis 2. No significant relationships were found by adding the intervening variable of SES. Teacher Trust in the Principal was found to be significantly correlated to Faculty Trust in the Principal.

The regression was completed using the independent variables of TITP and FOC, and SES as the control variable. Principal Grit was entered as the dependent variable. None of the three hypotheses were supported. Data indicates that TITP and FOC did not have a significant relationship with the grit of the principals. There were no significant relationships found by adding SES to the model.

In summary, Hypothesis 1, 2, and 3 were not supported. Further discussion on the findings and implications for future practice and research will be provided in the next chapter.

CHAPTER 5: SUMMARY OF RESEARCH

This chapter presents a summary of the findings of this study together with its theoretical and practical implications. Finally, recommendations for further research are provided.

Findings

This study analyzed the relationship existing between principal grit, teacher trust in the principal, and faculty organizational commitment. The hypothesized findings from this study are provided as follows:

1. Principal grit (PG) and teacher trust in the principal (TTITP) were not correlated.
2. PG and faculty organizational commitment (FOC) were not correlated.
3. TTITP and FOC were not jointly and individually related to PG.
4. Adding SES as a control variable did not produce positive or significant relationships with PG, TTITP, or FOC.

There are findings in addition to the ones that were hypothesized. Teacher Trust in the Principal is positively and significantly correlated to Faculty Organizational Commitment ($r = .811, p < .01$). As teacher trust in the principal increased so did faculty commitment to the organization. This would suggest that teachers who trusted their principal were more committed to the school organization. While not hypothesized, this finding supports prior research linking trust in the principal and organizational commitment (Yilmaz, 2008). The post hoc analysis also revealed a correlation between demographic variables.

One limitation of this study is the low sample size of 42 Alabama public high schools. Although each school district in Alabama containing high schools were invited to participate in this study, only 53 schools responded to an invitation of participation. Of those 53 schools who accepted an

invitation, only 42 completed the necessary survey data to be included in the study.

Theoretical Implications

This study serves as a beginning point for the literature of grit and its possible relationship with school organizational properties. It is based on the theoretical framework that the norm of reciprocity fostered by grit behaviors of the principal would promote higher levels of teacher trust in the principal and faculty organizational commitment. At this time this study is the only one that examines grit as it applies to the leadership of the school. Based on the review of literature, it may be argued that grit has a place in the organizational setting of schools. While no significant findings were noted, the theoretical knowledge about grit and the variables involved in this study were expanded.

Principal Grit, Teacher Trust in the Principal, and Organizational Commitment

The research questions asked was there a relationship between principal grit, teacher trust in the principal, and faculty organizational commitment. Drawing on Duckworth, grit was defined as perseverance and passion for long-term goals, and has been shown to predict accomplishments in challenging circumstances (Duckworth, Peterson, Matthews, & Kelly, 2007; Duckworth & Quinn, 2009). Trust in the Principal was the faculty's willingness to be vulnerable to and trust in the good intentions of the principal. Organizational Commitment was an individual's identification with an organization and satisfaction from belonging in it.

A positive relationship was anticipated between these variables. The theory that the teachers would perceive levels of principal grit and respond in a predictable way was not borne out. The sample size consisted of a diverse number of schools in the state of Alabama. A larger sample size would have been ideal however the sample size was satisfactory at 42 schools. The measures themselves had acceptable levels of reliability: principal grit, .72, teacher trust in the

principal, .98, and faculty organizational commitment, .91. These reliabilities indicate the items were being measured consistently. These results can be explained by going back to the theory of the study, which expected a norm of reciprocity in which the faculty manifested trust and commitment as an exchange with the principal's grit. However, the regression was not significant ($r = .976$, $p > .01$) and the only significant correlations were between trust in the principal and faculty organizational commitment. SES had no effect in this study as a control variable.

There are some possible explanations for these findings. A lack of validity of a self-reported grit scale by the principals could be an issue, although Duckworth's research would argue against this (Duckworth & Quinn, 2009). Principals in the study rated their own level of grit by answering 8 questions on the Grit-S scale. The issue with this could be principals might consider themselves more or less grittier than they actually are. It would be interesting to explore what the teachers would have rated their principals in the study in contrast to the self-evaluations completed by the principals themselves.

The two dependent variables trust in the principal and faculty organizational commitment were not responsive to principal grit. However, there were significantly related to each other. The reader is asked to remember that teachers in this study evaluated the trustworthiness of principals and their own commitment to the school organization. One possibility there were no correlations by trust and commitment with grit could be that grit is an individual behavior with no interaction involved with others. The specific grit behaviors of principals working hard, staying with their goals, and being diligent in their work are all singular actions. Behaviors such as trust and commitment which favor more positive interactions are more favorable for significant relationships. Trusted principals constantly reflect on the criteria of honesty,

openness, reliability, competence, and benevolence (Forsythe, Adams, & Hoy, 2011). According to Tarter and colleagues (1990) importance should be placed on getting teachers to identify with organizational goals. A teacher who shares the goals of the school as their own will be more committed than a teacher who accepts school goals out of compliance. Perhaps grit is missing some of the key themes of collaboration that make up trust and commitment. Conceivably grit combined with some other principal behaviors that contain more positive exchanges with teachers would elicit teacher trust in the principal and faculty organizational commitment.

In chapter 2 some possible negative effects of grit were acknowledged. Duckworth concedes that “grittier individuals, by staying the course, may sometimes miss out on new opportunities”. In a recent article, Kohn (2014) challenges the work of Duckworth. His opinion, which reflects the admissions of Duckworth, states “grit means doing a particular thing in life and choosing to give up a lot of other things in order to do it” (Kohn, p. 106). One example of this is Duckworth’s belief that talented musical children are better off sticking with one instrument over time than those who experiment with playing a variety of instruments.

Kohn argues that not everything is worth doing, let alone for long periods of time and grit can sometimes be inappropriate and unhealthy. Principals, like other leaders could be up to no good. Perhaps their persistence is used to ultimately reach a bad outcome. It probably would be a good thing if principals with bad goals had less grit. Sometimes it does not make sense to keep working a problem that has no solution. When people keep going under these circumstances they may display a refusal to disengage that proves to be unhealthy. Sometimes leaders need to know when to pull the plug on ideas that are not working.

It is important to note that Kohn’s criticisms are only his assumptions about grit. While Kohn suggests grit is a passing fad in the educational world, alienating grit at this point may be

too soon. This study, while not finding positive correlations between principal grit and the criterion variables also did not find negative ones. The issue is an empirical one and remains open to testing.

The literature review offered little explanation of the possible relationship between the variables because grit is a relatively new concept. Grit is a concept that has only been studied since the late 2000's. The origin of Duckworth's grit research dates back to 2007. However, its progression into the school setting spurs new research trends for school leaders, teachers, and students.

Implications for Practice

School administrators today are challenged to provide leadership in order to provide an educational environment that allows students to achieve at a high rate, be in a safe environment, and develop socially. Sometimes leaders can learn great lessons from failure. Standing up after each set back helps to foster grit, stamina within oneself, and the organization. The road to great achievement requires successful leaders to be resilient and endure hardships. School leaders must continue to seek out best practices in which to lead schools.

The findings of this study indicate that being a gritty principal by itself cannot bring about trust and commitment among teachers. Often administrators are told from their supervisors at the central office to "bear down", "work harder", and "get people on board with new ideas". School administrators should be informed that by just displaying high levels of grit behaviors such as working hard, not being discouraged by setbacks, and maintaining focus to finish projects will not win people over to achieve these types of goals. While grit has been linked to teacher effectiveness, there is no evidence that these behaviors should be adopted and put into practice by principals (Duckworth, et al., 2009). School leaders who are seeking to improve the

environment of their schools might consider using additional leader behaviors along with grit that offer more interaction with teachers. Grit alone is not enough.

Recommendations for Further Research

This section proposes areas of further research as related to grit. This study did not correlate principal grit, teacher trust in the principal, and faculty organizational commitment. However, this study has highlighted the importance of trust in the principal and faculty organizational commitment. Both of these variables have been studied for their connection to positive organizational outcomes, the most notable of which is student achievement. It was not surprising to find a connection between these two variables. The use of the Grit (Grit-S) is relatively new and could benefit from more studies across a wide range of school levels. The possible positive effects of grit warrant continued studies on the construct. The results of this study signify the need for further research on this and other related variables. First, a possible study could be done to validate an instrument for measuring grit that is not self-reported. Given the importance placed on school leadership behavior today, some other logical extensions from this study on grit of the principal are its relationship to the two other facets of trust: trust in clients and trust in colleagues. A study could also examine the role that principal grit plays in school climate. One might predict that a healthy school climate must have leadership that has passion and the ability to persevere in tough times.

Summary

History teaches us that researchers have pursued leadership styles that promote effectiveness. While this study made no findings of principal grit being related to trust and commitment, prior research has found that grit may promote teacher effectiveness, military retention, and the winning of challenging competitions. The limited research of grit in education

present many opportunities for future investigations into the numerous constructs found in a public education setting.

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APPENDIX A: SHORT GRIT SCALE (GRIT-S)

Short Grit 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 B: ORGANIZATIONAL COMMITMENT QUESTIONNAIRE

(MOWDAY, STEERS, AND PORTER, 1979)

1. I am willing to put in a great deal of effort beyond that normally expected in order to help this organization be successful.
2. I talk up this organization to my friends as a great organization to work for.
3. I feel very little loyalty to this organization. (R)
4. I would accept almost any type of job assignment in order to keep working for this organization.
5. I find that my values and the organization's values are very similar.
6. I am proud to tell others that I am part of this organization.
7. I could just as well be working for a different organization as long as the type of work was similar. (R)
8. This organization really inspires the very best in me in the way of job performance.
9. It would take very little change in my present circumstances to cause me to leave this organization. (R)
10. I am extremely glad that I chose this organization to work for over others I was considering at the time I joined.
11. There's not too much to be gained by sticking with this organization indefinitely. (R)
12. Often, I find it difficult to agree with this organization's policies on important matters relating to its employees. (R)
13. I really care about the fate of this organization.
14. For me this is the best of all possible organizations for which to work.
15. Deciding to work for this organization was a definite mistake on my part. (R)

Note: Responses to each item was measured on a 7-point scale with scale point anchors labeled: (1) strongly disagree: (2) moderately disagree: (3) slightly disagree: (4) neither disagree nor agree: (5) slightly agree: (6) moderately agree: (7) strongly agree. An "R" denotes a negatively phrased and reverse scored item.

APPENDIX C : THE OMNIBUS T-SCALE

Omnibus T-Scale

Directions: Please indicate your level of agreement with each of the following statements about your school from **strongly disagree** to **strongly agree**. Your answers are confidential.

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1. Teachers in this school trust the principal.	1	2	3	4	5	6
2. Teachers in this school trust each other.	1	2	3	4	5	6
3. Teachers in this school trust their students.	1	2	3	4	5	6
4. The teachers in this school are suspicious of most of the principal's actions.	1	2	3	4	5	6
5. Teachers in this school typically look out for each other.	1	2	3	4	5	6
6. Teachers in this school trust the parents.	1	2	3	4	5	6
7. The teachers in this school have faith in the integrity of the principal.	1	2	3	4	5	6
8. Teachers in this school are suspicious of each other.	1	2	3	4	5	6
9. The principal in this school typically acts in the best interests of teachers.	1	2	3	4	5	6
10. Students in this school care about each other.	1	2	3	4	5	6
11. The principal of this school does not show concern for the teachers.	1	2	3	4	5	6
12. Even in difficult situations, teachers in this school can depend on each other.	1	2	3	4	5	6
13. Teachers in this school do their jobs well.	1	2	3	4	5	6
14. Parents in this school are reliable in their commitments.	1	2	3	4	5	6
15. Teachers in this school can rely on the principal.	1	2	3	4	5	6
16. Teachers in this school have faith in the integrity of their colleagues.	1	2	3	4	5	6
17. Students in this school can be counted on to do their work.	1	2	3	4	5	6
18. The principal in this school is competent in doing his or her job.	1	2	3	4	5	6
19. The teachers in this school are open with each other.	1	2	3	4	5	6
20. Teachers can count on parental support.	1	2	3	4	5	6
21. When teachers in this school tell you something, you can believe it.	1	2	3	4	5	6
22. Teachers here believe students are competent learners.	1	2	3	4	5	6
23. The principal doesn't tell teachers what is really going on.	1	2	3	4	5	6
24. Teachers think that most of the parents do a good job.	1	2	3	4	5	6
25. Teachers can believe what parents tell them.	1	2	3	4	5	6
26. Students here are secretive.	1	2	3	4	5	6

(Copyright© Hoy and Tschannen-Moran, 2003)

APPENDIX D: CONVENIENCE RESEARCH SAMPLE OF 52 ALABAMA PUBLIC HIGH
SCHOOLS

- 1 Aliceville High School
- 2 Berry High School
- 3 Brewer High School
- 4 Brooks High School
- 5 Brookwood High School
- 6 Calera High School
- 7 Carbon Hill High School
- 8 Center Point High School
- 9 Central-Florence High School
- 10 Chelsea High School
- 11 Colbert County High School
- 12 Colbert Heights High School
- 13 Cordova High School
- 14 Corner High School
- 15 Cullman High School
- 16 Curry High School
- 17 Decatur High School
- 18 Deshler High School

- 19 Dora High School
- 20 East Lawrence High School
- 21 Fayette High School
- 22 Gordo High School
- 23 Hackleburg High School
- 24 Hamilton High School
- 25 Hartselle High School
- 26 Hillcrest High School
- 27 Homewood High School
- 28 Hoover High School
- 29 Hubbertville High School
- 30 Lamar County High School
- 31 Lauderdale County High School
- 32 Lawrence County High School
- 33 Lexington High School
- 34 Marion County High School
- 35 McAdory High School
- 36 Midfield High School
- 37 Muscle Shoals High School
- 38 Oak Mountain High School
- 39 Oakman High School
- 40 Oxford High School
- 41 Phillips High School

- 42 Pinson Valley High School
- 43 Pleasant Grove High School
- 44 Priceville High School
- 45 Red Bay High School
- 46 Rogers High School
- 47 Russellville High School
- 48 Sipsy Valley High School
- 49 South Lamar High School
- 50 Waterloo High School
- 51 West Morgan High School
- 52 Winfield High School

APPENDIX E: EMAIL TO SUPERINTENDENTS REQUESTING PERMISSION TO CONDUCT STUDY

Dear (Superintendents Name):

My name is Jeremy Madden. I am a doctoral student at the University of Alabama. My faculty advisor is Dr. J. Tarter. Having completed all requirements for the doctoral course work in Educational Administration at the University of Alabama, I am in the dissertation stage and seeking assistance from Alabama public high schools to complete my research.

My research focus will be in the area of organizational theory as it relates to schools and is The Relationships among Principal Grit, Teacher Trust in the Principal, and Faculty Organizational Commitment in Alabama High Schools. It will specifically examine the level of principal grit in schools, and how they are related to trust and commitment. Briefly, principal grit refers to the amount of perseverance and passions a principal has as the leader of the school. Organizational Commitment is an individual's ability to identify with an organization and experience satisfaction from current job experiences. Finally, Trust in the Principal is believing the principal will use his/her position to create a safe environment for students and faculty.

The research is to be completed in the spring/summer of 2014. It will involve staff members in high schools completing two different surveys. The survey is brief and will take no longer than 15 minutes. The study also involves the principal of the school completing one survey. This survey is brief and only contains 8 items. The process should take approximately 10 minutes. Copies of the survey instruments for this study are enclosed. The surveys would be sent electronically through QUALTRIX. Your teachers and principal may take the survey at their convenience.

Participation would be strictly voluntary, and results specific to individuals or specific schools would be confidential and not released to anyone except you. Only I will have access to the data and no IP addresses will be collected through QUALTRIX. Only summarized data will be presented at meetings or in publications. However, results of the overall study will be furnished to you or your school superintendent upon request.

A convenience sample to identify a research sample of 70 Alabama public high schools with grade configurations of 9-12. I am only interested in your high school(s) participating.

I respectfully request permission to contact the school principal at the aforementioned high school(s) about surveying them and their staff members for this research effort. Each individual school.

If you have any questions, please call me at 256 460 7656 or email me at jhmadden@crimson.ua.edu. Thank you for your time and consideration.

Jeremy Madden

Attachments:

District Permission Form

IRB Letter of Approval

Sample surveys

APPENDIX F: EMAIL TO PRINCIPALS REQUESTING PERMISSION TO CONDUCT STUDY

Dear (Principal's Name):

My name is Jeremy Madden. I am a doctoral student at the University of Alabama. My faculty advisor is Dr. J. Tarter. Having completed all requirements for the doctoral course work in Educational Administration at the University of Alabama, I am in the dissertation stage and seeking assistance from Alabama public high schools to complete my research.

Your school superintendent has given me permission to contact you about the possibility of your school participating in this study. My research focus will be in the area of organizational theory as it relates to schools and is The Relationships among Principal Grit, Teacher Trust in the Principal, and Faculty Organizational Commitment in Alabama High Schools. It will specifically examine the level of principal grit in schools, and how they are related to trust and commitment. Briefly, principal grit refers to the amount of perseverance and passions a principal has as the leader of the school. Organizational Commitment is an individual's ability to identify with an organization and experience satisfaction from current job experiences. Finally, Trust in the Principal is believing the principal will use his/her position to create a safe environment for students and faculty.

The research is to be completed in the spring/summer of 2014. It will involve staff members in high schools completing two different surveys. The surveys are brief and will take no longer than 15 minutes. The study also involves you, the principal of the school completing one survey. This survey is brief and only contains 8 items. The process should take approximately 10 minutes. Copies of the survey instruments for this study are enclosed. The

surveys would be sent electronically through QUALTRIX. You and your teachers may take the survey at your convenience.

Participation would be strictly voluntary, and results specific to individuals or specific schools would be confidential and not released to anyone except you. Only I will have access to the data and no IP addresses will be collected through QUALTRIX. Only summarized data will be presented at meetings or in publications. However, results of the overall study will be furnished to you or your school superintendent upon request.

A convenience sample to identify a research sample of 70 Alabama public high schools with grade configurations of 9-12. I am only interested in your high school participating.

I respectfully request permission to email you and your staff of certified teachers my survey links.

If you have any questions, please call me at 256 460 7656 or email me at jhmadden@crimson.ua.edu. Thank you for your time and consideration.

Jeremy Madden

Attachments:

District Permission Form

IRB Letter of Approval

Sample surveys

APPENDIX G: EMAIL TO PRINCIPALS REQUESTING CONSENT TO TAKE SURVEY

Dear Principal,

My name is Jeremy Madden, Principal Investigator from the University of Alabama. I am conducting a study called Relationships Among Principal Grit, Organizational Commitment, and Trust in the Principal. I wish to find out if there is a link between these concepts. Taking part in this study involves you completing a web survey, via an e-mail link, that will take about 10 minutes to complete. The surveys contains questions about Principal Grit. I will protect your confidentiality. Only I will have access to the data and no IP addresses will be collected. Only summarized data will be presented at meetings or in publications. There will be no direct benefits to you. The findings will be useful to academic researchers and school system personnel for improving school leadership. The chief risk is that some of the questions may make you uncomfortable. You may skip any questions you do not want to answer.

If you have questions about this study, please contact me at 256-460-7656 or via Email at jmadden@fayette.k12.al.us. If you have complaints or concerns about this study, file them through the UA IRB outreach website at <http://osp.ua.edu/site/PRCO>Welcome.html>. You are free not to participate or stop participating any time before you submit your answers.

Follow this link to the Survey:

[\\${1://SurveyLink?d=Take the Survey}](#)

Thanks for your time and assistance in this research,

Jeremy Madden

APPENDIX H: EMAIL TO TEACHERS REQUESTING CONSENT TO TAKE SURVEY

Dear Teacher,

My name is Jeremy Madden. I am a Principal Investigator from the University of Alabama for a study called Relationships Among Principal Grit, Organizational Commitment, and Trust in the Principal. I wish to find out if there is a link between these concepts. Taking part in this study involves you completing a web survey, via an e-mail link, that will take about 20 minutes to complete. The teacher surveys contain questions about Organizational Commitment and Trust in the Principal. I will protect your confidentiality. Only I will have access to the data. Only summarized data will be presented at meetings or in publications. There will be no direct benefits to you. The findings will be useful to academic researchers and school system personnel for improving school leadership. The chief risk is that some of the questions may make you uncomfortable. You may skip any questions you do not want to answer.

If you have questions about this study, please contact me at 256-460-7656 or via Email at jmadden@fayette.k12.al.us. If you have complaints or concerns about this study, file them through the UA IRB outreach website at <http://osp.ua.edu/site/PRCO>Welcome.html>. You are free not to participate or stop participating any time before you submit your answers.

Follow this link to the Survey:

`{1://SurveyLink?d=Take the Survey}`

Thanks for your time and assistance in this research,

Jeremy Madden

APPENDIX I: IRB APPROVAL LETTER

March 17, 2014

Office for Research
Institutional Review Board for the
Protection of Human Subjects

Jeremy Madden
ELPTS
College of Education
The University of Alabama

THE UNIVERSITY OF
ALABAMA
R E S E A R C H

Re: IRB # EX-14-CM-035 "The Relationships of Principal Grit,
Organizational Commitment, and Trust in the Principal"

Dear Mr. Madden:

The University of Alabama Institutional Review Board has granted approval for your proposed research.

Your protocol has been given exempt approval according to 45 CFR part 46.101(b)(2) as outlined below:

(2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless:

- (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and
- (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

Your application will expire on March 16, 2015. If your research will continue beyond this date, complete the relevant portions of Continuing Review and Closure Form. If you wish to modify the application, complete the Modification of an Approved Protocol Form. When the study closes, complete the appropriate portions of FORM: Continuing Review and Closure.

Should you need to submit any further correspondence regarding this proposal, please include the assigned IRB application number.

Good luck with your research.

Sincerely,



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