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A Mixed-Methods Study on Emotional and Social Intelligence and Grit in Graduate
Students at a Private Four-Year University

by

Emilee S. Schnefke

A Dissertation submitted to the Education Faculty of Lindenwood University

In partial fulfillment of the requirements for the

Degree of

Doctor of Education

School of Education

A Mixed-Methods Study on Emotional and Social Intelligence and Grit in Graduate
Students at a Private Four-Year University

by

Emilee S. Schefke

This dissertation has been approved in partial fulfillment of the requirements for the
degree of
Doctor of Education
at Lindenwood University by the School of Education



Dr. Lynda Leavitt, Dissertation Chair

4/13/2018
Date



Dr. Kevin Winslow, Committee Member

4/13/18
Date



Dr. Shane Williamson, Committee Member

4/13/18
Date

Declaration of Originality

I do hereby declare and attest to the fact that this is an original study based solely upon my own scholarly work here at Lindenwood University and that I have not submitted it for any other college or university course or degree here or elsewhere.

Full Legal Name: Emilee Sue Schnefke

Signature: _____



Date: _____

4-13-18

Acknowledgements

In 1996, I wrote a letter seeking scholarships which mapped my educational goals, ending with a Doctorate. In the letter I stated, “I have very high expectations and I intend to achieve all I set for myself”. The first day in Capstone I, I knew Dr. Leavitt would be the one to hold me to those expectations. After agreeing to serve as my Dissertation Chair, I went home and ordered several books on my subject. Today is finally here after years of sacrifice and hard work and I look forward to my next success. Thank you, Dr. Leavitt, for being the “captain of the ship” keeping me on track through your emails and office visits. Thank you, Dr. Winslow, for making statistics fun and helping me with the data analysis and Dr. Williamson, for being part of my committee as your professionalism and advice left a lasting impression. The wisdom and experience all of you hold not only helped me complete this process, but encouraged me to continue helping others achieve their goals.

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Abstract

The researcher observed, as an educator, administrator, and graduate student, college student's withdrawal from school due to personal reasons or lack of determination. The study of Emotional and Social Intelligence (ESI) and grit enabled the researcher to learn about the traits or characteristics one must possess to achieve a goal, more specifically earning a college degree. The researcher tested hypotheses for a difference in ESI and grit scores among the studied population and sought the perception of ESI and grit through a mixed-methods study. The researcher measured the ESI and grit among Educational Leadership Specialists and Doctoral students and graduates at a private college in the Midwest. The researcher utilized the Emotional and Social Competence Inventory-University (ESCI-U) and the 12-Item Grit Scale and conducted a *t*-test for a difference in means analysis. Questionnaires and interviews, authored by the researcher, provided additional insight into student and graduate perception of ESI and grit.

Results from the surveys, questionnaires, and interviews proved to be consistent. The ESCI scores indicated no significant difference between EdD students and graduates. Likewise, grit scores indicated no significant difference between EdD students and graduates. The researcher discovered sub hypotheses of the competencies of ESI and concluded no significant difference between EdD students and graduates. The perceptions of the EdD students and graduates were consistent with the scores on the ESCI-U and grit survey tools. The EdS student and graduate scores were unable to be measured due to an insufficient number of participants. The growth of ESC and grit appeared throughout the literature and the recommendation of a longitude study among

college students could provide knowledge on such growth into adulthood. The results of the study signified the purpose for future research at the collegiate level as a tool for professionals in higher education assisting students toward degree completion.

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Chapter One: Introduction

Introduction

Private four-year colleges throughout the United States reported a slight decline in retention and persistence rates for students who started in fall 2015. National Student Clearinghouse Research Center (NSCRC) reported persistence rates by private four-year colleges in the United States measured “90.1 percent for those who entered college on a full-time basis, compared to 63.7 percent for those who entered college on a part-time basis” (as cited in Tizon, 2017, p. 8). The direct cause of the decline reported remained unknown, but demonstrated to the researcher, a pattern worth noticing. Drop-out rate in college intrigued the longitudinal study of extracurricular activities and the length of participation among students from the Gates Foundation. Duckworth (2016) measured student’s activity and assigned a point system for the length of commitment called Grit Grid; two years or more, one point, one year, zero points, if a student pursued an activity for multiple years an extra point was assigned (p. 231). Duckworth (2016) concluded “69 percent of students who scored 6 out of 6 on the Grit Grid were still in college [and] ...just 16 percent of students who scored 0 out of 6 were still on track to get their college degree” (p. 232). At the time of this writing, little research demonstrated a picture of retention rates among doctoral students, other than attrition rates. Di Pierro (2012) reported an attrition rate of graduate doctoral students nationwide as 50% and “implementing paradigmatic retention initiatives to reverse this trend for doctoral students” must be the focus of universities (p. 29). A study conducted by Jayalakshmi and Magdalin (2015) noted the importance in researching emotional intelligence, resiliency, and mental health of college students to provide a manageable path to achieve

a goal. The study of college students served as an opportunity to assess the traits desirable toward degree completion.

Rationale of the Study

The researcher, as a teacher, administrator, and graduate student, observed students who withdrew from school due to personal reasons and failed to complete a degree. A study conducted by Cochran, Campbell, Baker, and Leeds (2014) concluded “the withdrawal rate is highest for freshman and decreases steadily for sophomores, juniors and seniors” (p. 42). Another study found “first-generation students were more likely to attain lower GPAs and to drop out of college” (Sun, Hagedorn, & Zhang, 2016, p. 953). The researcher recognized, experiencing personal stress may be commonplace, but studies indicated other factors contributed to the cognitive ability of an individual, specifically emotional intelligence (EI) (Collins, 2012; Ray & Brown, 2015). The current literature explored EI in secondary education (Ogoemeka, 2013; Preeti, 2013; Roy, Sinha, & Suman, 2013) and in undergraduate higher education (Afzal, Atta, & Shuajja, 2013; Garg, Levin, & Tremblay, 2016; Jayalakshmi & Magdalin, 2015; Orak et al., 2016), however the researcher did not discover studies including the graduate population.

Studies indicated EI attributed to the academic achievement of a student (Chamundeswari, 2013; Preeti, 2013; Randu, 2014). Historically, educators depended on tests such as the Scholastic Aptitude Test (SAT) or American College Test (ACT) scores to determine one’s success. Maraichelvi and Rajan (2013) reported EI “is considered as a successful predictor of academic success/performance/achievement” (p. 41). Furthermore, Mann (2012) noted, “it is increasingly recognized that IQ may account for only about 20% of a person’s success in life [and] the remaining 80% depends largely on

a person's emotional intelligence" (p. 455). Current literature also indicated EI was a key component to measure success of an individual with a desirable IQ score (Vaidya, 2013). After an extensive review of the current literature, the researcher found no previous studies on social intelligence, grit and the researched population.

In addition to EI, literature revealed other components to success such as grit (Duckworth, Peterson, Matthews, & Kelly, 2007), academic tenacity (Dweck, Walton, & Cohen, 2014), academic perseverance (Farrington et al., 2012), persistence and perseverance (Duckworth et al., 2007) and resilience (Perkins-Gough, 2013). The researcher perceived these characteristics as necessary among highly successful individuals to obtain academic and professional goals. Jayalakshmi and Magdalin (2015) studied EI and resilience in college students and reported "emotionally intelligent people are able to accurately recognize, express, and control their emotions [and] with these skills they become resilient being able to overcome challenges [and] setbacks" (p. 405).

Duckworth (2016) researched grit, grit and age, the "Big Five" traits and age, grit and academic performance, and grit to predict retention among United States Military cadets. Therriault and Krivoshey (2014) reported "the research on persistence in higher education tends to focus on completion of the first year (or even semester) of school" (p. 2). Other research included a study of the "relationship of the noncognitive, dispositional characteristics of grit, volition, and mindset to student persistence in undergraduate degree programs by students considered nontraditional and at-risk" (Ryan, 2015, p. 3). Throughout the current literature grit was found to be related to academic success (Duckworth, Kirby, Tsukayama, Berstein, & Ericsson, 2011; Strayhorn, 2013). Hill, Burrow, and Bronk (2016) "provid[ed] evidence that committing to a purpose in life may

encourage individuals to develop those characteristics that help them to achieve their long-term aims, such as a gritty disposition” (p. 266).

The current literature focused on EI and grit contributing independently to the success of an individual more specifically students. At the time of this writing, the researcher found no studies where both characteristics were studied together specifically related to those pursuing an Education Specialist (EdS) and Doctorate of Education (EdD) degree in Educational Leadership. The researcher believed studying students at the doctoral level would add to the existing body of knowledge through the competencies related to ESI and grit. The proposed study provided educational administrators with valuable information related to admissions and the academic setting when working with an adult student population. In addition, the research helped “close the gap” between ESI and grit in the higher education setting, educational leadership and the workforce.

Purpose of Study

The purpose of this study was to measure the emotional and social intelligence (ESI) and grit among Educational Leadership students and graduates specifically, students earning a doctorate or specialist degree. Each EdD degree included areas of emphasis described as: Andragogy, Higher Education Administration, Higher Education Leadership, or PK-12 Instructional Leadership (Researched University, 2017). In addition, this study involved Instructional Leadership Specialist, EdS students and graduates in one of the following emphasis areas: Educational Administration, Literacy Education Specialist (K-12), Mathematics, Education Specialist, (Elementary K-6), or PK-12 Education (Researched University, 2017). The researcher perceived the doctoral and specialist student/graduate as a representative of the highest level of education and

sought to understand the characteristics of the adult population; educational and professional success.

Historically, educators relied on assessments to measure a student's growth and knowledge on a subject. Habley, Bloom, and Robbins (2012) reported, "Success is predicted on academic performance, retention, progress, and persistence" (p. 52). The researcher focused on the non-cognitive traits of a student, which contributed to success. The researcher found the necessity to study attributes such as self-awareness, self-regulation, motivation, empathy, social skills, social awareness, and relationship management and grit in an adult population specifically in the areas of admissions, academic advising, and other related fields to decrease attrition rates. An article in *The Chronicle of Higher Education*, explained graduate programs failed at student retention and the institution along with the student, collectively were responsible (Cassuto, 2013). Results of the same study described team work as essential to assure students graduated. Locke and Boyle (2016) stated "if universities want to improve their current graduation rates, they must become more aware of the needs of graduate students and devise specific way to serve and assist them" (p. 1590). This research helped close the gap between cognitive and non-cognitive factors to success in higher education; specifically, doctoral and specialist students/graduates.

Professional Experience

The significance of the study was to provide a deeper understanding of ESI and grit among doctoral and specialist students and graduates. The insight to the specific population served as a resource to career services in higher education and employers. Previous research found qualities such as EI and grit traits desirable in hired employees

(Salminen & Ravaja, 2017). Furthermore, Serrat (2017) stated EI “is more and more relevant to important work-related outcomes such as individual performance, organizational productivity, and developing people” (p. 330). Organizations received a benefit from measuring the level of EI in employees to understand traits related to job satisfaction, commitment, and job performance. Shooshtarian, Ameli, and Aminilari (2013) studied EI in relation to job satisfaction, findings included “employees with high EI are more likely to have higher levels of job satisfaction because they are more adept at appraising and regulating their own emotions” (p. 38).

Research conducted by Singh, S. Singh, and A.P. Singh (2014) reported “emotional intelligence was significantly negatively correlated with intention to leave which indicate that high trait emotional intelligence executives are less likely to leave the organization” (p. 232). Another study in the hospitality and tourism industry concluded employees “expressing of genuine emotions, in-depth communication resulted in lower turnover” (Xu, Martinez, & Lv, 2017, p. 12). Previous research described EI characteristics as a contributing factor to employee commitment toward an organization and found a strong correlation between self-awareness, employee commitment and self-regulation with commitment and motivation (Barthwal & Som, 2012). In addition, the study provided organizations with valuable information on grit and the connection to productive employees. Akin and Arslan (2014) reported “grit has come up as a relatively new personal characteristic in the literature and it is thought to be related with the prediction of change in leadership effectiveness” (p. 268).

Hypotheses and Research Questions

This study tested the following hypotheses:

H1: There is a difference in the Emotional and Social Intelligence quotient of EdD students and EdS students.

H2: There is a difference in the Emotional and Social Intelligence quotient of EdD students and EdS graduates.

H3: There is a difference in the Emotional and Social Intelligence quotient of EdD students and EdD graduates.

H3a: There is a difference in the emotional self-awareness quotient of EdD students and EdD graduates.

H3b: There is a difference in the achievement orientation quotient of EdD students and EdD graduates.

H3c: There is a difference in the adaptability quotient of EdD students and EdD graduates.

H3d: There is a difference in the emotional self-control quotient of EdD students and EdD graduates.

H3e: There is a difference in the positive outlook quotient of EdD students and EdD graduates.

H3f: There is a difference in the empathy quotient of EdD students and EdD graduates.

H3g: There is a difference in the organizational awareness quotient of EdD students and EdD graduates.

H3h: There is a difference in the conflict management quotient of EdD students and EdD graduates.

H3i: There is a difference in the coach and mentor quotient of EdD students and EdD graduates.

H3j: There is a difference in the inspirational leadership quotient of EdD students and EdD graduates.

H3k: There is a difference in the influence competency quotient of EdD students and EdD graduates.

H3l: There is a difference in the teamwork quotient of EdD students and EdD graduates.

H4: There is a difference in the Emotional and Social Intelligence quotient of EdD graduates and EdS students.

H5: There is a difference in the Emotional and Social Intelligence quotient of EdD graduates and EdS students.

H6: There is a difference in Grit scores of EdD students and EdS students.

H7: There is a difference in Grit scores of EdD students and EdS graduates.

H8: There is a difference in Grit scores of EdD students and EdD graduates.

H9: There is a difference in Grit scores of EdD graduates and EdS students.

H10: There is a difference in Grit scores of EdD graduates and EdS graduates.

Research Questions

This study researched the following questions:

RQ1: How do EdD students and graduates perceive Emotional and Social intelligence?

RQ2: How do EdS students and graduates perceive Emotional and Social intelligence?

RQ3: How do EdD students and graduates perceive grit?

RQ4: How do EdS students and graduates perceive grit?

Study Limitations

The researcher identified a number of limitations in the study including the lack of participants. The study involved students enrolled or graduated in either the doctoral or specialist Educational Leadership programs at the researched institution. Due to an initial low participant response, the researcher discussed an alternative research plan with members of her committee including interviews. The data collected and analyzed included a small portion of the adult learner researched population. Since the study was voluntary using a convenience sample, the researcher fell short of meeting the minimum of 30 participants for each category: EdD student/graduate and EdS student/graduate. Frankel, Wallen, and Hyun (2011) “recommend[ed] a minimum of 30 individuals per group...experimental studies with only 15 individuals in each group should probably be replicated, however, before too much [was] made of any findings” (p. 103). The total number of surveys distributed n=45 to the EdD students included n=19 respondents to the Emotional and Social Competency Inventory-University Edition (ESCI-U) survey and n=23 respondents to the grit survey. The total number of EdS students who volunteered for ESCI-U survey n=10 resulted in n=10 respondents to the grit survey. Due to a low participant rate from EdS students, the researcher amended the original research design by asking for assistance from the dean of education within the researched institution. After approval, the dean assisted the researcher by emailing 100 advisees the invitation to participate in the study. No additional EdS students participated. The supervisor of the study emailed 277 EdD graduates to participate in both the ESCI-U and grit survey; 18

participated in the ESCI-U and grit surveys. However, from the total $n = 478$ emails sent to EdS graduates, 4 responded to the ESCI-U and 2 to the grit survey. Fraenkel et al. (2015) stated, “When it is possible, researchers would prefer to study the entire population of interest. Usually, however this is difficult to do. Most populations of interest are large diverse, and scattered over a large geographic area” (p. 92). Due to the low number of participants who responded to the EI assessment and Grit survey, the researcher in consultation with her Chair decided to increase the number of individual interviews. Another limitation of the participant pool could have been all the participants were from the same institution, therefore giving biased findings. It should be noted the participation rate was low regardless of the healthy sample size in the study.

Another possible limitation to the study was the ease of the ESCI-U assessment user site. Each participant was emailed a username and password to log onto Hay Group website to complete the ESCI-U. The 68-question survey might have been too lengthy for some to complete or the process to access the survey was not conveniently accessible. In addition, the participants would not see the results of the individual score and therefore possibly resulted in a decision to not participate.

Another limitation concerned the grit survey and questionnaire. The oversight of the survey may have occurred depending if the participant took the ESCI-U assessment first, thinking there was only one survey. In either case, the participant might have started the survey, but failed to finish which resulted in an incomplete response. In some cases, the participant might have initially volunteered for the study, but then forgot to complete or had little knowledge on the topic to comfortably participate. The reason for a high nonresponse rate was noted by Fraenkel et al. (2015) as “a number of reasons, lack

of interest in the topic being surveyed, forgetfulness, unwillingness to be surveyed and so on, but it is a major problem that has been increasing in recent years” (p. 404). In addition, the participant possibly perceived the questionnaire as too lengthy to complete. Another possible limitation to the research was the importance of participating. The researcher discovered the EdD population participated, not at large amounts, but enough to run statistical analysis, whereas the EdS population did not reach over n=four.

Definition of Terms

This study identified terms to enhance clarity for the reader:

12-Item Grit Scale, is an assessment tool created by Angela Duckworth to measure the level of grit in individuals. The scale includes 12 statements in which the reader chooses from five responses designed to measure grit. The scale is a self-scored assessment providing a score between 5 (extremely gritty) and 1 (not gritty at all) (Duckworth et al., 2007).

Category, for the purpose of this study, includes one of the following; Doctorate of Education Student, Doctorate of Education Graduate, Educational Specialist Student, or Educational Specialist Graduate.

Doctorate of Education (EdD) Graduate, for the purpose of this study is a doctoral student who successfully defended a dissertation in an Educational Leadership program at the researched four-year private university.

Doctorate of Education (EdD) Student, for the purpose of this study is a doctoral student enrolled in the Educational Leadership program at the researched four-year private university at the time of this study.

Educational Specialist (EdS) Graduate, for the purpose of this study is a student who completed the degree requirements for the EdS degree programs at the researched four-year private university.

Educational Specialist (EdS) Student, for the purpose of this study is a student enrolled in the EdS degree program at the researched four-year private university at the time of this study.

Emotional Intelligence (EI) is “the capacity of recognizing our own feelings and those of others, for motivating ourselves, and for managing our emotions well in ourselves and our relationships” (Goleman, 1998, p. 317). EI is also “observed when a person demonstrates the competencies that constitute self-awareness, self-management, social awareness and social skills at appropriate times and ways in sufficient frequency to be effective in the situation” (Boyatzis, Goleman, & Rhee, 2000, p. 34).

Emotional and Social Competency Inventory- University Edition (ESCI-U) is a 68 question self-score-able tool assessing emotional and social intelligence competencies stressing the following four areas: self-awareness [emotional self-awareness], self-management [achievement orientation, adaptability, emotional self-control, positive outlook], social awareness [empathy, organizational awareness], and relationship management [conflict management, coach and mentor, influence, inspirational leadership, teamwork] (Boyatzis & Goleman, 2007, p. 2).

Grit is “the perseverance and passion one has to obtain a long-term goal” (Duckworth et al., 2007, p. 1087).

Social Intelligence is two-fold consisting of “social awareness, what we sense about others and social facility, what we then do with that awareness” (Goleman, 2006, p. 84).

Summary

The purpose of this study was to measure emotional and social intelligence and grit in doctoral and specialist students and graduates in a private four-year institution. It should be noted, although the researcher found numerous ways to refer to emotional intelligence, throughout the current literature, for the purpose of this study the researcher selected the abbreviation ESI for emotional and social intelligence. The results of this study added to the existing body of knowledge by exposing the skills displayed by this adult population which contributed to degree completion. The findings in the study provided the educational and professional environments with valuable information for admissions and hiring purposes and closed the gap between the undergraduate population and the researched group. Chapter One detailed the background, purpose, rationale and professional significance of the study, introduced the research questions and hypothesis, discussed the limitations, and defined terms used within the text. The next chapter included a review of the current literature on topics such as the foundation of ESI and grit, competencies of ESI, characteristics of grit, factors to success, retention, assessment tools and ESI and grit in higher education. Chapter Three explained the methodology used by the researcher and the survey tools distributed to the participants. Chapter Four discussed the results both quantitative and qualitative data. Lastly, Chapter Five included the discussion and recommendations for future studies on ESI and grit.

Chapter Two: Review of Literature

Introduction

The researcher reviewed the current literature and focused on the educational setting and the traits found in an individual to be successful in college and beyond; a growing concern in educational institutions with the readiness of students entering college (Asamsama et al., 2016; Royster, Gross, & Hochbein, 2015; Subedi & Powell, 2016). The researcher began with investigating high school practices and efforts in preparing students for college. High schools across the country implemented college readiness programs to prepare students with the basic skills for college success (Royster et al., 2015). A study titled, *Maximizing College Readiness for all Through Parental Support*, investigated the connection between student readiness and the involvement of the parent through a three-year college readiness program. Leonard (2013) concluded “most students pointed to a parent (85%) and/or a guidance counselor (80%), which underscored the importance of both roles when it came to enlisting young students who were not academically proficient for this challenging program” (p. 192) which supported earlier claims of program necessity. Research conducted by Lapan, Poynton; Marcotte, Marland, and Milam (2017) revealed student engagement with counselors over the course of high school to be a significant predictor of success in college. Furthermore, the lack of student readiness varied in academic and non-academic factors such as family situations or peer pressure (Venezia & Jaeger, 2013).

In addition, the literature supported education as a necessity when contributing to society (Bok, 2015; Royster et al., 2015). The researcher observed the level of commitment a university had when a student enrolled. Krumrei-Mancuso, Newton, Kim,

and Wilcox (2013) believed “colleges and universities are concerned with preparing students for productive roles in society” (p. 247). The literature supported the belief of a “gap” between the transition from high school to college (Conley & French, 2014; Venezia & Jaeger, 2013), ultimately setting a student up for failure. Atherton (2014) reported “frustration and lack of success contribute to overall difficulties in transitioning to college and ultimately to negative retention and attainment outcomes” (p. 828). While Levine and Dean (2012) noted “this generation of college students is no better and no worse than those who came before them, but these students require an education geared both to their unique strengths and weaknesses and to the times” (para. 10). In the following paragraph, the researcher presented the traits and skills a student would need to complete a graduate degree.

The literature review began by the identification of the foundation of doctoral students, ESI, and the competencies related to success noted from early researchers. The review continued with an understanding of grit and the contributing factors in relation to student achievement. The researcher further reviewed the literature on the relationship between Growth mindset, ESI and grit to understand the individual traits necessary for degree completion. The review of ESI and grit in the workplace provided a picture of how ESI and grit pertained beyond educational years. Lastly, attention focused on other non-cognitive connections between ESI and grit in academic success.

Foundations of Doctoral Students

Doctoral degrees, developed within higher education institutions in Europe. Archbald (2011) noted “The American doctorate-granting university did not develop until the last half of the nineteenth century [and] before this, America’s top college graduates

traveled abroad for advanced graduate study” (p. 8). As higher education grew in the United States graduates became an important factor to the economy. Thurgood, Golladay, and Hill (2006) reported “Between 1900 and 1999 the U.S. graduate education system developed into an integral part of the social and economic structure of the country, contributing to the nation’s economic standing and also constituting a significant component of the U.S. economy” (p. 3). Completion of doctoral degrees including Ed.D. and Ph.D. were popular years ago. One of the earliest articles found, titled *Two Doctoral Degrees* written by Hollis (1942), included “During and following the war there is likely to be an increasing demand for Ed.D.'s and Ph.D.'s in governmental and private industry and commerce” (p. 261). In addition, Thurgood et al. (2006) noted, “The greatest growth in doctoral programs at U.S. institutions of higher education was in the 1960s and 1970s, after the Soviet Union launched the satellite *Sputnik*” (p. 5). Throughout the literature review the researcher found little information on the researched population in this study (Bagaka’s, Badillo, Bransteter, & Rispinto, 2015).

The doctoral degree represented the highest level of education as Archbold (2011) noted, “The degree certifies its bearer has achieved the highest level of formal education and training in a particular discipline or profession” (p. 16). Exploring this level of education was necessary to better understand the skillset needed to achieve such goal. Ampaw and Jaeger (2012) included “Doctoral students are valuable to the research and teaching missions of many institutions [and] doctoral students support faculty as research assistants and often carry a significant responsibility in seeing a research project to completion” (p. 641). Furthermore, researchers Frick, Albertyn, Brodin, Mckenna, and Claesson, (2016) stated, “knowledge creation at the doctoral level and beyond requires a

comprehensive understanding of relevant knowledge sound judgement, and the ability to advise with insight” (p. 203). Developing an outstanding skill set was essential, according to the researcher, as an important component when reaching the doctoral level.

Factors to Success: Galton to Goleman

Historically, research on cognitive traits existed at a higher number than research on non-cognitive traits, however previous studies revealed the presence of alternative abilities in successful individuals. Galton (1892) stated “the path that leads to eminence and has strength to reach the summit-one which if hindered or thwarted will fret and strive until the hindrance is overcome and it is again free to follow its labour-loving instinct” (p. 38). The literature provided the researcher with the early theorists focused on the attributes of an individual. James (1907) built on this idea by stating, “the excitements that carry us over the usually effective dam are most often the classic emotional ones, love, anger, crowd contagion, or despair” (p. 324). The researcher found the concept of EI hidden throughout the early researchers in the field. Furthermore, Ruckstell (1918) wrote “personality so generally lies at the foundation of success or failure ...that about the only exception to the rule is when its effect is so indifferent or negative that mere existence is the net product of individual effort” (p. 343).

The researcher’s review included the work of Frederick Taylor (1911), who measured the success of man as a scientific approach explained in the seminal work, *The Principles of Scientific Management*. Taylor (1911) provided an example of man who was unable to produce success alone, “he must be trained by a man more intelligent than himself into the habit of working in accordance with the laws of this science before he can be successful” (p. 59). Taylor’s theory stimulated other researchers to investigate the

components to success including intelligence quotient (IQ), developed in the early 1900's. In 1920, Edward L. Thorndike published a scholarly article introducing the idea of intelligences which ultimately transformed into ESI. According to Thorndike (1920) an individual possesses three intelligences, mechanical, social, and abstract; mechanical intelligence included knowing how to manage and understand concepts of things such as an automobile. Social intelligence was met by understanding others and to "act wisely in human relations", abstract intelligence referred to understanding and managing ideas, symbols, laws, and when the mind worked with general facts about things, social intelligence was doubted. Thorndike (1920) believed an individual possessed all intelligences and when measured, served as a predictor of success. Thoughts included, If we take a group of individuals and measure their success in life, as students in school, or as money-makers, or as lawyers, or as carpenters, or as teachers of children, and then measure their intellect by some suitable series of tests and observations, we can determine how closely success in any line goes with the degree of intelligence shown by the test-score. (pp. 232-233)

Building upon Taylor (1911) and Thorndike (1920), McMurry (1951) studied personality and noted "academic achievement is, of course, desirable in trainees, but it is not necessarily a sign of ability to work face-to-face with other people" (p. 605). By the 1960's the growth of personality tests paired with IQ tests became a popular measure of achievement. David C. McClelland (1973) first stressed the importance of competencies as a new technique when within a piece defending the concept to test for skills rather than intelligence (Emmerling & Boyatzis, 2012; Goleman, 1998). McClelland (1973) stated "for some purposes it may be desirable to assess competencies that are more generally

useful in clusters of life outcomes, including not only occupational outcomes, but social” (p. 9). The work of McClelland served as a turning point for theorists a movement towards a specific set of individual traits or skill set defined as “success” (Goleman, 1998). Furthermore, Howard Gardner (2002) added to the field and proposed “two forms of personal intelligence-interpersonal and intra personal...close to what Goleman means by emotional intelligence” (p. 3).

In 1995 Daniel Goleman published a book, *Emotional Intelligence Why it can matter more than IQ*, developed from the work of his mentor, McClelland. Overtime, research revealed IQ was not the only factor when measuring success and found other components which contributed to success and goal achievement; individuals who scored high on IQ tests, but professionally performed poor, and those who had average IQ performed exceptional at work (Goleman, 1998). Research conducted by Furnham (2016) indicated “EI was negatively correlated with IQ: that is the people of higher IQ had lower EI” (p. 195). In the literature Shah, Sanisara, Mehta, and Vaghela (2014) believed IQ and emotional quotient (EQ) were skills which complemented each other and EQ continued to grow over time. In addition, the researchers stated one must “become aware of the importance of this skill, so that you can concentrate on using your high IQ to improve your EQ” (p. 61).

Emotional and Social Intelligence Competencies

By the mid 1990’s ESI and the competencies emerged throughout the research. Although, ESI gained popularity in the field of psychology soon the concept earned attention as an attribute for success. O’Meara, Knudsen, and Jones (2013) noted “emotional competencies are the personal and social skills that are displayed in individual

interactions; these competencies are the foundation for emotional intelligence” (p. 317). Goleman (1998) explained in *Working with Emotional Intelligence*, “many of the personality tests had been designed for completely different reasons, such as diagnosing psychological disorders, and so were poor predictors of how well people actually performed on the job” (p. 16). The use of ESI and the competencies “have been used increasingly in higher education organizations and other nonprofit and human service organizations to understand success” (O’Meara et al., 2013, p. 318). Adsul (2013) reported “emotional intelligence is an umbrella term that captures a broad collection of interpersonal and intrapersonal skills” (p. 560). Furthermore, ESI was “observed when a person demonstrated the competencies that constitute self-awareness, self-management, social awareness and social skills at appropriate times and ways in sufficient frequency to be effective in the situation” (Boyatzis, Goleman, & Rhee, 2000, p. 34). ESI influenced the student academically and led to emotional adjustment in an educational setting (Catalina, 2014). The researcher found in her experience ESI to be important in business and education.

Boyatzis et al. (2000) prepared a *Handbook for Emotional Intelligence*, which discussed the model for competencies associated with ESI. The model consisted of 25 competencies under the umbrella of five clusters; self-awareness, self-regulation, motivation, empathy, and social skills. Self-awareness included, emotional awareness, accurate self-assessment, self-confidence, while self-regulation measured, self-control, trustworthiness, conscientiousness, adaptability, and innovation. Motivation involved self-regulation, achievement drive, commitment initiative, and optimism, whereas empathy examined development of others, service orientation, leveraging diversity, and

political awareness. Lastly, social skills included communication, conflict management, and leadership, change catalyst, building bonds, collaboration, cooperation and team capabilities (Boyatzis et al., 2000).

Literature indicated other models developed prior to the work of Boyatzis and Goleman. Then, Yale psychologists, Salovey and Mayer (1990) had clusters, labeled domains which included self-awareness, managing emotions, motivating oneself, empathy, and handling relationships (as cited in Mann, 2012). For Salovey and Mayer (1990), the domains were similar to Boyatzis et al. (2000), with the small exception, the terminology included feelings and emotions. The research noted, self-awareness was “observing oneself and recognizing a feeling as it happens” (Mann, 2012, p. 455). Although the models represent differently, a common theme existed when assessing the two. The researcher found in the review the presence of ESI and grit in education, career, and life situations (Farh, Seo, & Tesluk, 2012; Ray & Brown, 2015; Shooshtarian, Ameli, & Aminilari, 2013).

Salovey and Mayer (1990) noted “the person with emotional intelligence can be thought of as having attained at least a limited form of positive mental health” (p. 201). Chib (2012) described self-awareness as “the ability to read ones emotions and recognize their impact while using gut feeling to guide decisions” (p. 456) while self-management “involves controlling one’s emotions and impulses and adapting to changing circumstances” (p. 456), social awareness included “the ability to sense, understand, and react to others emotions while comprehending social networks” (p. 456). The researcher discovered in the literature the work of theorists such as Thorndike, Gardner, and McClelland as contributors for an alternative intelligence (Appolus, Niemand, &

Karodia, 2016; Birknerova, Frankovsky, Zbihlejova, 2013; Pinto, Faria, Gaspar, & Taveira, 2015; Saxena & Jain, 2013; Sirin, 2017).

Goleman's first model included four clusters and 18 competencies and commonly referred to as Emotional Competence Inventory (ECI); later Goleman reduced the number to four clusters and twelve competencies (ESCI-U Workbook, 2016). Goleman's model, served as the basis for the researcher's study, defined by each competency like Salovey and Mayer (1990). Self-awareness, self-management, social awareness, and relationship management were all sub components of the redesigned model described as the Emotional and Social Competency Inventory (ESCI) (Hay Group, 2011). Hay Group's model utilized by the researcher, listed the following competencies: self-awareness, emotional self-awareness, social awareness, empathy, organizational awareness, self-management, achievement orientation, adaptability, emotional self-control, positive outlook, relationship management, conflict management, coach and mentor, influence, inspirational leadership, and teamwork.

The research indicated Salovey and Mayer (1990) first coined ESI as; "emotionally intelligent individuals [who] accurately perceive their emotions and use integrated, sophisticated approaches to regulate them as they proceed toward important goals" (p. 201). Furthermore, Mann (2012) noted managing emotions as "handling feelings so that they are appropriate; realizing what is behind a feeling, finding ways to handle fears and anxieties; anger and sadness" (p. 455). Salovey and Mayer (1990) added "When people approach life tasks with emotional intelligence, they should be at an advantage for solving problems adaptively" (p. 200).

The researcher found within the literature review social intelligence frequently paired with ESI and concepts which complemented each other. Gayathri and Meenakshi (2013) noted “the concept of social intelligence paved way to theories which insisted on recognizing other latent skills in a person, in itself it was not successful or convincing” (p. 44). Goleman (2006) concluded “simply lumping social intelligence within emotional sort of stunts fresh thinking about the human aptitude for relationship, ignoring what transpires as we interact” (p. 83). In addition, Ebrahimpoor, Zahed, and Elyasi (2013) stated “the emphasis of social intelligence is on the individual and internal control and management of excitements while emotional intelligence puts stress on the control and management of feeling in relation to others” (p. 4). Singh and Singh (2012) studied secondary school teachers in relation to an individual’s social intelligence and “it was found that the teachers with high group of social intelligence got high mean score on all components of emotional intelligence” (p. 180). The literature showed individuals with high levels of social intelligence had more confidence, successful in society, management of emotions and job satisfaction (Birknerova et al., 2013; Pinto et al., 2015).

In addition, social intelligence, helped individuals prosper, useful in solving problems within society, and an important component within an educational setting (Saxena & Jain, 2013). The review of the literature supported the claim of social interactions being an important factor to a student’s overall well-being and academic success (DeRosier, Frank, Schwartz, & Leary, 2013). The researcher recognized social intelligence as an important quality to achieve goals both academically and career oriented. In addition, Ebrahimpoor, Zahed, and Elyasi, (2013) further explained social awareness “an individual through becoming aware of others’ feelings, tastes, and needs

identifies the paradoxical situations, and makes use of this source of information to establish a good relationship with them” (p. 3).

EI Tools

After a review of the literature, the researcher discovered several instruments used to measure ESI. The frequently used assessments included Emotional and Social Competency Inventory (ESCI) developed by Richard Boyatzis and Daniel Goleman, which measured competencies of an individual.

Table 1

EI Assessments

ESCI	MSCEIT	EQ-i
Emotional Self-Awareness	Perceiving Emotion	Self-Regard
Emotional Self-Control	Facilitating Thought	Emotional Self-Awareness
Self Management	Understanding Emotions	Assertiveness
Achievement Orientation	Managing Emotions	Independence
Positive Outlook		Self-Actualization
Empathy		Empathy
Organizational Awareness		Social Responsibility
Coach and Mentor		Interpersonal Relationship
Inspirational Leadership		Stress Tolerance
Influence		Impulse Control
Conflict Management		Reality-Testing
Teamwork		Flexibility
		Problem-Solving
		Self-Motivation

Note. Adapted from Emotional Intelligence Consortium - Articles, Research and Information on Emotional Intelligence. (n.d.). Retrieved September 21, 2017, from www.eiconsortium.org

The researcher discovered literature comparing and highlighting each assessment for individual reasons, for example, Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT), indicated the participant used unique abilities to take the assessment, and Emotional Quotient Inventory (EQ-i) created by Ruven Bar-On focused on the traits of

the participant (Fabio & Saklofske, 2014; Killian, 2012; Salminen & Ravaja, 2017) (see Table 1).

Grit Components

The review of the literature revealed terms closely related to grit including academic tenacity (Dweck et al., 2014), academic perseverance (Farrington et al., 2012), persistence and perseverance (Kinzie, 2014), and resilience (Perkins-Gough, 2013). Throughout the literature, previous studies included Angela Duckworth as the pioneer of grit. Duckworth (2016) noted, individuals foster a passion by discovering what brings them joy. Duckworth's (2016) work revealed this does not come easy for everyone and "interests thrive when there is a crew of encouraging supporters, including parents, teachers, coaches, and peers" (p. 105). Individuals found to stay committed to a goal when they practice beyond set expectations. Hill, Burrow, and Bronk (2016) reported "evidence that committing to a purpose in life may encourage individuals to develop those characteristics that help them to achieve their long-term aims, such as a gritty disposition" (p. 266). Duckworth (2016) researched students who participated in the National Spelling Bee and found students who practiced longer were grittier than those who did not. A review of the research indicated deliberate practice to be a key to success, particularly being gritty (Duckworth & Gross, 2014). Duckworth (2016) indicated four requirements of deliberate practice including "a clearly defined stretch goal, full concentration and effort, immediate and informative feedback, and repetition with reflection and refinement" (Duckworth, 2016, p. 137). In addition, studies revealed grit to be more than persistence, the concept also contained a commitment or loyalty toward a passion over a long period of time (Perkins-Gough, 2013). The literature

indicated, “grit entails maintaining allegiance to a highest-level goal over long stretches of time and in face of disappointments and setbacks” (Duckworth & Gross, 2014, p. 4). In addition, Strom and Savage (2014) reported support from family and friends contributed to the students’ commitment toward a goal significantly. Factors of persistence among students included involvement in student activities, remaining committed, self-determined, and interactions with faculty as an influence to complete a goal (Simmons, 2013). In the research, adults with more education were grittier than those who were less educated counterparts (Duckworth et al., 2007; Gutierrez, Garriz, Peri, Vall, & Torrubia, 2016).

Included in the literature, grit was a component in motivating one to work toward a set goal. Lucas, Gratch, Cheng, and Marsella (2015) explored the link between grit and emotions and found “grittier participants’ emotional reactions and expectations of those tasks were more positive than their less gritty counterparts” (p. 21). The grit characteristic was highly evident in successful individuals and necessary for obtaining goals such as a college degree. There was a presence of Grit or perseverance, in individuals who did not allow failure or challenges from achieving a long-term goal. Arslan, Akin, and Citemel (2013) concluded “academic success requires not only an initial surge of momentum in a focused direction but also the ability to maintain that momentum regardless of what gets in the way” (p. 316). Conley and French (2014) noted characteristics of a persistent student included significant effort, strong goal focus and good listening skills. Although many factors contributed to a student completing a college degree, emotional intelligence and grit became over looked (Hochanadel & Finamore, 2015).

Grit developed into a predictor for success of students (Duckworth et al., 2007). Lucas et al. (2015) studied grit and persistence and concluded “higher grit individuals invest more effort and persist in tasks that are not going well [and] grittier participants were less willing to give up when failing even if they were likely to incur a cost for their persistence” (p. 20). Duckworth et al. (2007) studied six different predictors of grit and reported “that grittier individuals have attained higher levels of education than less gritty individuals of the same age [and] older individuals tended to be higher in grit than younger individuals” (p. 1098). Studies compared competencies of report card grades, influence of self-control and competencies of standardized tests. Wolters and Hussain (2015) concluded “students who indicated that they were more diligent, worked harder, and were less discouraged by setbacks also expressed greater interest, value, and usefulness for their coursework and tended to express increased confidence that they could successfully complete academic tasks” (p. 305). Mann (2012) stated “motivating oneself was channeling emotions in the service of a goal; emotional self-control; delaying gratification and stifling impulses” (p. 455). In addition, Duckworth, Quinn, and Tsukamaya (2012) concluded “Self-control predicted changes in report card grades over time better than did IQ, whereas IQ predicted changes in standardized achievement test scores better than did self-control” (p. 448).

Growth Mindset

Throughout the literature the factors of success ranged from ESI, grit, self-efficacy, and personality. Dweck (2016) stated “Individuals who believe their talents can be developed (through hard work, good strategies, and input from others) have a growth mindset. They tend to achieve more than those with a more fixed mindset” (para. 2). The

review of studies indicated growth mindset, if developed could help develop grit in an individual (Hochanadel, & Finamore, 2015). Furthermore, “students are more likely to stick with challenging tasks and assignments when they believe that their effort is a determining factor in their growth” (Laursen, 2015, p. 23). In addition, Dweck (2008) noted, “the passion for stretching yourself and sticking to it, even when it’s not going well, is the hallmark of the growth mindset” (p. 7). Furthermore, “this is the mindset that allows people to thrive during some of the most challenging times in their lives” (Dweck, 2008, p. 7).

The researcher found growth mindset as a component to ESI and grit as noted in the following sentence. “The resilience research has focused our attention not on disorders and dysfunctions but rather upon what occurs in the lives of those students who succeed academically and socially even when faced with adverse life situations” (Nicoll, 2014, p. 52). In addition, researchers noted “Growth mindset is changing a student’s thinking that intelligence level is not a fixed number and can change. Grit in education is how one can achieve longterm goals by overcoming obstacles and challenges” (Hochanadel & Finamore, 2015, p. 49).

Achievement

Historically, the predictor of college success weighed on the student’s Grade Point Average (GPA) and standardized test scores (Caskie, Sutton, & Eckhardt, 2014; Komarraju, Ramsey, & Rinella, 2013). Although GPA is the outcome of one’s academic performance a recent phenomenon known as emotional intelligence became a contributing factor as well (Landau & Meirovich, 2011). Researchers noted EI could replace the intelligence quotient (IQ) in the future when determining one’s success in

college. Mann (2012) noted, “it is increasingly recognized that IQ may account for only about 20% of a person’s success in life [and] the remaining 80% depends largely on a person’s emotional intelligence” (p. 455). Gardner (2011) noted “the [IQ] tests have predictive power for success in schooling but relatively little predictive power outside the school context, especially when more potent factors like social and economic background have been taken into account” (p. 17).

Studies indicated emotional intelligence is a key component to measure success over one with a desirable IQ score (Vaidya, 2013). The review included studies which had more influence by non-cognitive skills. McClelland (1973) studied a group of students with all A’s compared to students with C average (or lower) and tracked individuals for 15-20 years and could not distinguish the two groups from another (p. 2). Researchers recognized factors which contributed to the cognitive ability of an individual and concluded achievement tests missed components which supported success (Collins, 2012; Ray & Brown, 2015).

The researcher discovered criticism for possible bias which may limit student enrollment in college with standardized tests such as the Scholastic Aptitude Test, now known only as SAT, and the competitor American College Tests (ACT) (Zwick, 2017). The study of Toldson and McGee (2014) revealed, “students with low high school GPAs and high SAT or ACT scores generally performed poorly in college and students with strong high school GPAs and low SAT or ACT scores generally performed well in college” (p. 1). In contrast, Shaw (2015) wrote for *College Board Research* indicating “SAT scores and high school GPA (HSGPA) are strong predictors of first-year GPA (FYGPA) with correlations in the mid .50s” (p. 3). Additionally, “the experiences of

students once they enter college, particularly during the first year, are very significant in influencing their success” (p. 326). Researchers discovered “using the two measures together predict FYGPA is more powerful than using HSGPA or SAT scores on their own because they each measure slightly different aspects of a student’s achievement” (Shaw, 2015, p. 3). The researcher noted from her experience the combinations of GPA, SAT/ACT, ESI and grit all may be a predictor of a successful student.

Although cognitive tests provided an insight to an individual’s success, researchers investigated the other competencies which later would be responsible for assisting in the development of emotional intelligence. A study including college students revealed “emotional intelligence was significantly related to resilience [and] ...that more the emotional intelligence, greater was the probability that students became resilient in the face of adversity” (Jayalakshni & Magdalin, 2015, p. 405). In addition, O’Meara et al. (2013) used a qualitative approach to investigate the type of emotional competence graduate students displayed in the relationship with faculty. The researchers discovered “252 instances of emotional competencies displayed by faculty and 127 by graduate students” (O’Meara et al., 2013, p. 340).

Emmerling and Boyatzis (2012) further suggested “as frameworks for emotional and social competencies [ESC] began to develop and be validated, it become feasible to employ additional measurement methodologies to the assessment of ESC” (p. 11). A study conducted by Maraichelvi and Rajan (2013) revealed academic performance was successful with a higher ability of interpersonal management and intrapersonal management skill. In addition, individuals who can accurately make a truthful model of oneself and use it effectively in life, have a high interpersonal intelligence (Mann, 2012).

Furthermore, Maraichelvi and Rajan (2013) concluded emotional intelligence mattered in academic performance of college students. Students with high interpersonal and intrapersonal skills were more likely to seek assistance for academic help which ultimately aided in a successful experience in college (Maraichelvi & Rajan, 2013). In addition, researchers found educators to be important on academic achievement and success of a student (Mehmood, Qasim, & Azam, 2013). The review found the ESI and grit levels to be just as important as the student.

The review of the literature indicated theories of competence focusing specifically toward work success and the usefulness in human resources. Emmerling and Boyatzis (2012) built on the claim stating “the integration of emotional, social, and cognitive intelligence competencies provides a parsimonious and theoretically coherent framework for organizing the assessment of development of talent in the workplace” (p. 8). Non-cognitive skills were beginning to be important as researchers explored and gained the understanding of competencies other than IQ. A study conducted by Fariselli, Freedman, and Ghini (2013) stated “Emotional intelligence was found to predict 47% of the variation in manager’s performance management scores [and] emotional intelligence was also massively correlated with increased organizational engagement with 76% of the variation in engagement predicted by manager EQ” (p. 2). In the book *Primal Leadership*, Goleman, Boyatzis, and McKee (2013) noted self-awareness as a key trait among leaders and stated “still, we find that effective leaders typically demonstrate strengths in at least one competence from each of the four fundamental areas of emotional intelligence” (p. 40).

Maraichelvi and Rajan (2013) noted emotional intelligence has been a well sought out and somewhat debatable topic in education and management alike. Competencies of college students were studied by Kim and Ra (2015) and reported “self-control with effective time management, note taking strategies, and goal orientation are three of the most important non-intellectual factors” (p. 168). The researched literature indicated “students with higher levels of emotional intelligence, particularly intrapersonal capacity and stress tolerance, are more likely to be successful in a baccalaureate nursing program than students with lower levels” (Jones-Schnek & Harper, 2014, p. 419). Furthermore, Maraichelvi and Rajan (2013) reported emotional intelligence “is considered as a successful predictor of academic success/performance/achievement” (p. 41). The study focused on emotional intelligence and academic performance and suggested “the study has implication for the curriculum developers to integrate emotional intelligence into the curriculum of school to college students” (Maraichelvi & Rajan, 2013, p. 44).

Retention

Retention among college students continued to be problematic and alarming to administrators. Kinzie (2014) stated, “A third or more students leave four-year public colleges and universities at the end of their first year and about 40% of students who begin college will never earn a degree” (p. 333). Morrow and Ackerman (2012) conducted a study on first-year students assessing the sense of belonging and ability to persist to a second year in college. The researchers concluded “personal development was related to second year retention; those students who had more intrinsic attitudes towards increasing their creative thinking were more likely to have returned for their second year” (p. 489). Sun, Hagedorn, and Zhang (2016) studied homesickness and

college retention and found both ACT and high school rank “were significant predictors for Homesick Separation and Distress. ACT had a negative relationship with the dependent variables, suggesting that students with lower ACT scores were more likely to experience homesickness” (p. 950).

Morrow and Ackerman (2012) reported “we need to look at non-cognitive factors as one piece of the retention puzzle but we need to investigate which specific non-cognitive factors are most important” (p. 489). Researchers explored the perceptions of students, more specifically freshmen, upper classmen, and non-returning freshmen in relation to programing, experience and transition to college. Turner and Thompson (2014) found four themes which “Sixty-seven percent of students cited engaging in freshmen activities, 65% mentioned the development of effective study skills, 57% reported not interaction with instructor-student relationship and 53% cited inadequate academic services-support” (p. 100). Furthermore, studies investigated the possible influence of the instructor towards the student’s ability to persist. Pascarella, Salisbury, and Blaich (2011) discovered “exposure to organized and clear instruction enhances student satisfaction with the overall college experience, which in turn, increases the probability of a student’s reenrolling at an institution for the second year of college” (p. 17).

Researchers discussed the importance of improving services for EdD student retention. Jimenez West, Gokalp, Pena, Fischer, and Gupton (2011) stated “researchers need to examine students’ experiences in their respective programs and the unique structures designed to support their educational goals” (p. 311). In addition, Brailsford (2010) studied doctoral retention in New Zealand and concluded “a significant number of

New Zealand doctoral students did not complete their doctorates; this phenomenon has been consistent throughout the last four decades with candidates studying for the history of PhD in New Zealand” (p. 71). Furthermore, attrition risk measured among surgical residents found “those who have more grit have better well-being and may thus be at lower risk for attrition” (Salles et al., 2017, p. 290).

Leadership ESI and GRIT

A recent study indicated the persistence level of educators and teaching abilities influenced students. Robertson-Kraft and Duckworth (2014) concluded “teachers with evidence of sustained passion and perseverance in activities prior to entering teaching were more likely to be retained through the school year and improve their students’ academic performance” (p. 19). Similar findings emerged by Duckworth, Quinn, and Seligman (2009), when the authors stated “our results suggest that both grit and life satisfaction may be proximal contributors to teacher effectiveness” (p. 544).

The study of emotions in the workplace existed for many years, however recently ESI and leadership surfaced. The review of the literature revealed “for a long time, IQ has been a predominant explanatory variable for successful leadership in organizations [and] EQ, a competing and convincing concept has offered an alternative to understanding our emotions and in addition, leadership success and failure” (Doe, Ndinguri, & Phipps, 2015, p. 112). In addition, relationship management resulted as “the ability to inspire, influence and develop others while managing conflict” (Mann, 2012, p. 456). Employers have been known to test the ESI of employees as Kadane (2017) noted “companies know that employees who score well on emotional intelligence will not only be able to do the job but will also be better equipped to read workplace situations, get

along with co-workers, collaborate and solve problems” (para. 33). IQ and EQ when studied along with team work and the sense of belonging to the group by team members, contributed to research. Coetzer (2015) noted “both IQ and EQ support team member confidence but that EQ makes a much bigger contribution to a team member feeling confident about working in teams” (pp. 127-128). The researcher believed ESI would be a valuable competency to teach to employees if not already developed.

ESI and leadership skill set provided an understanding to the traits of a leadership role and building on the importance of ESI in the workplace was the framework developed by Hay Group. The benefits of using assessments as ESCI included “at an individual level the ESCI, often combined with coaching, can help leaders and key contributors to determine what outstanding performance means for them within their role and decide what competencies to work on” (Hay Group, 2011, p. 9). The combination of ESI competencies in leadership roles proved successful outcomes. Hoyt (2013) indicated “research demonstrates the great utility in merging both intrapersonal and interpersonal perspective when attempting to understand individual success” (p. 16). Sahu and Srivastava (2013) noted “an individual in an organization exhibit effective behavior if the individual is in right emotional state [and] the process of emotion regulation shows the way in which emotions influence performance” (p. 536). Furthermore, Segon and Booth (2015) added to the importance of competencies and stated “it would be reasonable to conclude that the purposes of the ECI and ESCI are to assist individuals identify emotional competencies that lead to outstanding work performance, and where required, to develop those competencies” (p. 795).

As stated previously, research measured ESI and competencies among individuals in corporate America. Studies reported the importance of a leader possessing the skills to perform the job (IQ), but also the “soft skills” such as a desirable EQ. Reviewing the literature left the educational setting with fewer studies which supported the purpose to conduct research in this area. Ebrahimpoor et al. (2013) studied social intelligence in the work setting and found “a positive and significant relationship between social intelligence and organizational performance with a correlation coefficient of 0.37” at the .95 confidence interval (p. 7). Mann (2012) also noted handling relationships involve “managing emotions in others; social competence and social skills” (p. 456). While Goleman (2014) stated “it’s your expertise and intelligence that get you the job, but it’s your EI that makes you a successful leader” (p. 50).

ESI and Decision Making

Leadership and decision making have been dependent upon one another in the past. Angelidis and Ibrahim (2012) reported “those with personal qualities that enable them to recognize and evaluate their own and others emotions are more likely to make decisions whose consequences are favorable for all those involved” (p. 116). The connection between ESI and decision resulted to desirable and undesirable outcomes. Krishnakumar and Rymph (2012) supported this claim by adding “decision makers, seeking to minimize their feelings of discomfort, may choose decisions that make them less likely to incur that discomfort” (p. 326).

Training ESCI and GRIT

Boyatzis (1982) studied workplace behavior and noted “the individual’s competencies represent the capability that he or she brings to the job situation” (p. 12).

Gignac, Harmer, Jennings, and Palmer (2012) conducted a study on salespeople, one group received ESI training while a control group did not. The researchers concluded “the group of salespeople who received the ESI training program outperformed a corresponding control group by approximately 9 percent ($p < 0.05$) with respect to sales performance” (Gignac et al., 2012, p. 110). Mortan, Ripoll, and Carvalho (2014) concluded, “The capacity to regulate and use emotions properly impacts the perception of self-efficacy that, in turn, can inspire youngsters to take entrepreneurial pathways” (p. 102).

Coaching and mentor influence became an important competency of ESI. Tschannen and Carter (2016) studied instructional coaches in relation to ESI and reported a statistically significant increase in the sample. Researchers noted the ESI increase was due to the coaches participating in a training course (Tschannen & Carter, 2016). Furthermore, improvement of managerial skills developed over time with practice and training. Goleman et al. (2013) stated “emotional self-awareness creates leaders who are authentic, able to give advice that is genuinely in the employee’s best interest rather than advice that leaves the person feeling manipulated or even attacked” (p. 62). ESI training or practice has been a suggestion throughout the studies to improve soft skills. The researcher found the review of the literature justifies the need to conduct research on ESI to improve communications skills with others.

Educators and ESI and GRIT

Joshith (2012) conducted a study investigating the use of ESI as a teaching tool and included “it is possible to develop the emotional intelligence of prospective teachers and also shows a strong positive relationship between emotional intelligence and teaching

competency” (p. 59). A study investigated ESI job satisfaction and commitment among high school English teachers and reported a positive correlation between ESI scores and job satisfaction and ESI and organizational commitment (Nahid, 2012). The study of gender differences among university professors provided information related to emotions. Shehzad and Mahmood (2013) measured male and female professors and concluded “both of them are equally aware of their emotional state, are equally adept in managing their stress, can adapt to the changing environment equally well and have the similar general mood” (p. 19). The finding supported the view which the pioneer of ESI, Goleman (1998) possessed, the claim stated no difference in the level of ESI among the gender because each person has an individual profile which over groups averages out. The review of the literature revealed the teaching of ESI as a contributor to achievement. Joshith (2012) noted our emotional intelligence increased “at any time in our life as we learn and practice the skills that makeup the concept... [and] people can be taught to become more emotionally intelligent which enables them to become more successful in life” (p. 56).

The traits of leaders have been a contributing factor to student success. Cho, Harrist, Steele, and Murn (2015) indicated “basic psychological need satisfaction variables and leadership self-efficacy have an important influence on college students’ motivation for leadership” (p. 40). The study of student/teacher involvement and leadership outcomes measured both ESI and leadership skills. Researchers concluded the importance of “college educators, both in academic courses and student affairs programs and services working to help students develop the types of emotional and leadership skills necessary for success after graduation” (Joseph & Newman, 2011, p. 96). Cho et.

al. (2015) studied the possible increased student motivation and the ability to lead. Researchers reported “college students whose basic need for competence is fulfilled tend to have a high level of leadership self-efficacy” (p. 40). Joshith (2012) noted high achievement traits included self-awareness, accountability, consequential thinking, creative and curious learning environment, and intrinsic motivation.

Non-Cognitive Factors to ESI and GRIT

Non-cognitive factors such as personality when studied in conjunction with satisfaction and quality of life. Sami and Rizvi (2013) reported “emotional intelligence factors-EI (intra-personal awareness), E2 (inter-personal awareness) and E4 (Intra-personal management) were positively related to Life Satisfaction among the Adults” (p. 470). A study conducted by Chen and Lai (2015) noted “society is now starting to accept emotional intelligence as an important factor in predicting success and leading people to a more meaningful and productive life” (p. 42). Moldasheva and Mahmood (2014) reported “students who were conscientious and open to new experience employed more learning strategies than those with other personality types, with conscientiousness students utilizing eight of nine learning strategies to pick up new concepts and ideas” (p. 349).

Chen and Lai (2015) reported “relationship between personality traits and emotional intelligence has been widely investigated, and the findings of the current study confirmed association between the five dimensions of personality traits and emotional intelligence and is consistent with most of the past studies” (p. 41). The big five personality measurement measured traits in addition to ESI. Bukhari and Sarwat (2014) concluded “emotional intelligence and Big Five personality dimension significantly

correlated” (p. 93). Literature reviewed by the researcher revealed a positive correlation among extraversion and ESI, agreeableness had a relatively weak significant relationship, conscientiousness had strong correlation with ESI, openness to experience had a correlation with ESI, however, neuroticism had significantly negative correlation with ESI (Bukhari & Sarwat, 2014). Moldasheva and Mahmood (2014) stated “among the five personality traits, conscientiousness is highly correlated with intrinsic motivation, extroversion is positively correlated with extrinsic motivation and neuroticism is negatively correlated with motivation” (p. 355). A review of the research indicated “that of the personality traits, extraversion, agreeableness, and openness to experience, emerged as significant predictors of emotional intelligence” (Alghamdi, Aslam, & Khan, 2017, p. 4).

Self-Determination as a Motivator

Other characteristics led to success including self-determination theory (SDT). Researchers stated “SDT postulates that human beings have three essential psychological needs - autonomy (feeling of being the origin of one’s own behaviors), competence (feeling effective), and relatedness (feeling understood and cared for by others)” (Silva, Marques, & Teixeira, 2014, p. 172). Ntoumanis et al. (2014) indicated individuals motivated to obtain a goal based on personal importance or enjoyment led to increased behavior to persist and increasing persistence toward a difficult goal were associated with a self-regulatory response. Latalova and Pilarik (2015) hypothesized “that high levels of SD [self-determination] and perceived EI, being central dispositional factors of personality integration, would lead one to adopt adaptive CDMSs [career decision making strategies]” (p. 97).

Furthermore, Latalova and Pilarik (2015) reported, self-determination "...was found to be an important predictor of adaptive CDM [career decision-making strategies] in terms of explaining career undecidedness, also plays a crucial role in predicting preference for specific adaptive CDMSs" (p. 106).

Ray and Brown (2015) built on socioeconomic status being a predictor of college success by stating "students' family backgrounds impact their education attainment, occupational status, income, and wealth capacity" (p. 138). Furthermore, Serbin, Stack, and Kingdon (2013) "identified key variables linking socioeconomic factors in parents' educational background, parenting, and resources/stimulation in the home environment to early school achievement" (p. 1333). The school setting has also played a role to the student's overall success. Research conducted in 2013 discovered support from faculty resulted in positive academic performance among African American and Latino students (Baker, 2013). Lightweis (2014) reported some white, working-class students, first generation, dropped out and the same report concluded others persisted and succeeded due to programs aligned with individual goals (Lightweis, 2014). Conley and French (2014) stated "students with strong motivation and drive, a desire to achieve goals, a belief in their own capacity for success, the ability to reflect on their learning strategies, and a willingness to persist" (p. 1019) would overcome the adversity when an obstacle was introduced.

Students and Stress

Stress was one factor found among doctoral students and researchers provided areas of improvement. Geslani and Gaebellein (2013) suggested "creating a supportive and nurturing environment on campus and providing time and stress management

workshops could be options to consider seriously” (p. 1466). Researchers investigated retention rates and found many factors which contributed to the outcomes. DeRosier et al. (2013) reported “students with greater resilience appeared to be better able to cope with the stressors associated with the transition to college” (p. 542). Furthermore, Batool (2013) concluded “emotional intelligence can help to reduce stress improve performance and sense of achievement by motivating the subordinates within the organization and helps enhance the productivity of the employees to meet [an] organizational end” (p. 92).

Self-Efficacy

According to Shi and Zhao (2014) students faced with solving problems tend to have negative coping skills and led to emotional reactions. Researchers studied the level of self-efficacy among students to better understand the relationship to success. Elliott (2016) noted “those individuals with higher perceptions of social efficacy were more likely to persist” (p. 425). Cho et al. (2015) reported “basic psychological need satisfaction variables and leadership self-efficacy have an important influence on college students’ motivation for leadership” (p. 40). Researchers studied motivation and the relationship to student success. Guiffrida, Lynch, Wall, and Abel (2013) reported “students who were motivated to attend college to fulfill intrinsic needs for autonomy and competence showed higher GPAs and intentions to persist than students who were less motivated to attend for these reasons” (p. 135). Cho et al. (2015) stated “a sense of self-efficacy can come from successfully overcoming challenges or obstacles to achieve a goal, master a subject, or develop a skill” (p. 42). “The importance of self-efficacy as a mediator in stressful encounters is manifested through a sense of control over behavior, environment, thoughts and feelings” (Tsarenko & Strizhakova, 2013, p. 75).

In addition, researchers studied other aspects connected with self-efficacy to better understand overall academic growth. Melzer and Grant (2016) concluded involving instructors in classroom strategies helped improve self-efficacy in students. Tsarenko and Strizhakova (2013) studied self-efficacy and ESI and found “a higher level of emotional intelligence is positively associated with one’s expressive coping strategy” (p. 86). Krumrei-Mancuso et al. (2013) reported “Academic self-efficacy and organization and attention to study were predictive of first-semester GPA when controlling relevant demographic factors” (p. 260).

Students who experience high self-efficacy resulted in an increased chance to be a predictor of reaching performance goals. The literature indicated performance goals align with a students’ idea of comparing themselves with peers and gaining external praise when an achieved concept occurred (Niazi, Adil, & Malik, 2013). Furthermore, “students who have greater awareness of their strengths are therefore more likely to perceive available strategies for achieving their goals- to envision more pathways to meeting their goals- on average, than their peers” (Soria & Stubblefield, 2015, p. 56). Social involvement in college linked students to success. Furthermore, Petty (2014) noted “Institutions play an important role in motivating students by understanding intrinsic and extrinsic factors that motivate students to remain in college [and] postsecondary institutions should provide a range of programs to help these students face their challenges and weaknesses” (p. 257). As stated, student involvement either socially or academically played an important role in student achievement. Webber, Bauer, Krylow, and Zhang (2013) concluded “students who reported more frequent engagement

in academic and social activities earned higher grades and reported higher levels of satisfaction with their college experience” (p. 604).

Summary

The insufficient literature provided justification to research the doctoral and specialist population. In addition, the research of the assessments provided validation to utilize Goleman and Boyatzis ESCI-U assessment. The researcher investigated the individual competencies connected to achievement and success. Perez-Lopez, Gonzalez-Lopez, Rodriguez-Ariza (2016) reported “resilience is a relevant competency that is directly and positively associated with EI” (p. 222). The review of the literature coincided with the researcher’s concept to require a curriculum to develop ESI and grit. The researched studies provided substantial evidence supporting the claim of ESI and grit could assist an individual toward success. Conley and French (2014) noted a student must have certain skills and “a strong sense of self-efficacy that they can indeed achieve their goal through hard work, the ability to self-monitor their performance and adjust as needed, and the willingness to persist when they encounter a setback or unexpected challenge” (p. 1031). This chapter was a review of the knowledge on ESI, grit and growth mindset. In addition, the researcher reviewed early theorists in detail to better understand the foundation of ESI and grit. This chapter informed the reader of the non-cognitive factors to success other than ESI and grit. In addition, the researcher examined the relationship between ESI and grit with education, leadership, and retention. Chapter Three explored the purpose of the study, the significance, and outline of the research design. Justification of a mixed-method approach and the validation of the researched site and participants provided clarity. In addition, the researcher discussed the

instruments and survey tools used for the study. Chapter Four included the results of the study including the presentation of quantitative and qualitative data. Chapter Five included the summary and discussion and recommendations for future research. Lastly, the researcher believed only the study of the underrepresented population, could provide educational institutions greater clarity to understand the characteristics necessary to earn achievement in college, specifically as a doctoral student.

Chapter Three: Research Methodology

Chapter Three described the procedures used during the research process including an overview of the research design, research site, participants, hypotheses and research questions, instruments used, data collection and analysis procedures. Justification for using a mixed methods design were also considered in the chapter along with any limitations of the selected population. Lastly, the researcher provided an explanation of the research design and the purpose of the amended procedure for collecting data.

Purpose

The purpose of the mixed-method study was to measure emotional and social intelligence (ESI) and grit among Educational Leadership students and graduates in a private four-year university; specifically, doctoral and specialist students/graduates. Creswell, Klassen, Plano Clark, and Smith (2011) reported “Mixed methods research involves integration of data such that the analytic process benefits from multiple perspectives and data sources” (p. 14). In addition, DeCuir-Gunby and Schutz (2016) stated “mixed methods research allows for the examination of complex problems within a single study by providing evidence to triangulate or corroborate findings with multiple sources of evidence” (p. 3). Fraenkel et al. (2015) reported not only are mixed-method studies becoming more popular in educational research, “their value lies in combining quantitative and qualitative methods in ways that complement each other” (p. 563). Furthermore, Plano Clark and Ivankova (2016) reported “integrating quantitative and qualitative methods within one study can help researchers exclude or minimize potential alternative explanations of the results, while at the same time provide enough information

to explain divergent aspects of the studied phenomenon” (p. 9). The researcher sought to determine if there was a difference in ESC and grit scores among the researched population and individual perceptions on ESC and grit.

The researcher conducted a stratified random sample for the study among four populations: EdD students, EdD graduates, EdS students, EdS graduates. Fraenkel et al. (2015) reported “the advantage of stratified random sampling is that it increases the likelihood of representativeness, especially if one’s sample is not very large” (p. 96). Altheide and Schneider (2013) stated “stratified random sampling is part of the movement from conceptual refinement to comparative investigation of other cases and examples” (p. 61). Furthermore, using stratified random sampling reduces the amount of errors and allows all groups to be represented equally (Black, 2012).

The quantitative aspect of this study enabled the researcher to measure the emotional and social intelligence of EdD/EdS students and graduates, along with an individual’s grit score. Gathering the data allowed the researcher to compare the scores among the researched populations. The qualitative component of the study allowed the researcher to gain the perception of EdD/EdS students and graduates on emotional and social intelligence and grit. Results from the study could provide an insight to the types of support needed when working towards a graduate degree and possibly lead to changes in admissions screening for the researched university.

Research Site and Participants

The researched site was a private four-year institution located in the Midwest. The populations of the study included; EdD/EdS students enrolled in the spring and summer 2017 semesters and EdD/EdS alumni from 2010-2017. The researched

population was different from other studies due to the current literature only focusing on undergraduate students.

The researcher requested permission from the professors who were teaching the researched population via email to visit each class and provided the professor with a description of the study and a copy of the IRB approval certificate. Next the researcher arranged a time to visit the class and present the study to the students. Finally, the researcher passed a sign-up sheet to the class and those students who agreed to participate would provide the researcher with an email address and indicated current enrollment as an EdD or EdS student. The researcher then emailed the participant two links to participate in both the ESCI-U and 12-Item Grit Survey.

Participants who consented to answer the interview questions were EdD students; the students signed a participation consent provided by the researcher. All participants volunteered to participate in the study by providing the researcher an email address or through emailing the researcher to participate. Participants validated consent by accessing the survey links provided.

Fraenkel et al. (2015) indicated “a sample of at least 50 is deemed necessary to establish the existence of a relationship” (p. 103). In the study, quantitative data collection the researcher expected a minimum of 30 and a maximum of 50 participants from the population. The qualitative data collection included a minimum of 15 and a maximum of 20 participants from the population. For qualitative studies researchers recommended a sample size from 1 to 20 (Fraenkel et al., 2015, p. 104).

Instruments

This study used two survey instruments approved by the appropriate authors: Hay Group, Emotional and Social Competency Inventory- University Edition (ESCI-U), and Duckworth Lab, 12-Item Grit Scale Emotional and Social Competency Inventory University Edition (ESCI-U) (see Appendix H & I). The researcher utilized ESCI-U assessment, developed and co-authored by Richard Boyatzis and Daniel Goleman who partnered with Hay Group. The combination of professionals provided over 15 years of research and use. Various studies defended the validity of the assessment by measuring multiple groups of individuals across the competencies being assessed (Havers, 2010; Hay Group, 2011; Sala, 2001; Williams, 2008). The ESCI-U consisted of four clusters and 12 competencies used when measuring ESI (see Table 2).

Table 2
ESCI Clusters with Competencies

Self-Awareness	Social Awareness
•Emotional Self-Awareness	•Empathy
	•Organizational Awareness
Relationship Management	Self-Management
•Conflict Management	•Achievement Orientation
•Coach and Mentor	•Adaptability
•Influence	•Emotional Self-Control
•Inspirational Leadership	•Positive Outlook

Note : Figure authored by researcher.

The assessment included 68-questions which the participant answered never, rarely, sometimes, often, consistently, or don't know, to various questions consistent with the competencies. The researcher obtained a username and password to access the self-serve site by Hay Group to set up the EdD/EdS student profiles.

The 12-Item Grit Scale measured the level of grit in EdD/EdS students and graduates. The assessment was known internationally and authored by Angela Duckworth of University of Pennsylvania. Besides the validation measures of Duckworth and Quinn (2009), another study supported the validity of the assessment (Tyumeneva, Kuzmina, & Kardanova, 2014). The scale included 12 statements in which the participant selected if the statement was very much, mostly, somewhat, not much, or not like me at all. Each question received a point value and calculation to determine the level of grit one has; 1 being not gritty and 5 very gritty. The participant received an email link to complete the survey hosted by Qualtrics.

In addition to the quantitative tools, the researcher authored a 14-question research survey (see Appendix A). The researcher developed the survey to further understand the perception and knowledge of ESI and grit among the participants. Seven of the questions in the survey aligned with the competencies related to ESI, which included self-awareness, social awareness-empathy, relationship management-conflict management. The other seven questions aligned with the characteristics of grit and self-control; all questions were accessible by a survey link directing the participant to Qualtrics, the survey platform used by the researcher. Furthermore, the researcher authored an interview tool which consisted of eight questions (see Appendix K). The instrument was not part of the initial assessment, however due to a low response rate during the initial period of data collection, the researcher consulted with her Chair and determined the addition of an interview component to the original research design added a deeper insight to ESI and grit in the researched population.

The researcher developed 10 null hypotheses statements for analysis, each aligned with the purpose of the study.

Null Hypotheses

Null Hypothesis 1: There is no difference in Emotional and Social Intelligence quotient of EdD students and EdS students.

Null Hypothesis 2: There is no difference in Emotional and Social Intelligence quotient of EdD students and EdS graduates.

Null Hypothesis 3: There is no difference between Emotional and Social Intelligence quotient of EdD students and EdD graduates.

Null Hypothesis 3a: There is no difference in the emotional self-awareness quotient of EdD students and EdD graduates.

Null Hypothesis 3b: There is no difference in the achievement orientation quotient of EdD students and EdD graduates.

Null Hypothesis 3c: There is no difference in the adaptability quotient of EdD students and EdD graduates.

Null Hypothesis 3d: There is no difference in the emotional self-control quotient of EdD students and EdD graduates.

Null Hypothesis 3e: There is no difference in the positive outlook quotient of EdD students and EdD graduates.

Null Hypothesis 3f: There is no difference in the empathy quotient of EdD students and EdD graduates.

Null Hypothesis 3g: There is no difference in the organizational awareness quotient of EdD students and EdD graduates.

Null Hypothesis 3h: There is no difference in the conflict management quotient of EdD students and EdD graduates.

Null Hypothesis 3i: There is no difference in the coach and mentor quotient of EdD students and EdD graduates.

Null Hypothesis 3j: There is no difference in the inspirational leadership quotient of EdD students and EdD graduates.

Null Hypothesis 3k: There is no difference in the influence competency quotient of EdD students and EdD graduates.

Null Hypothesis 3l: There is no difference in the teamwork quotient of EdD students and EdD graduates.

Null Hypothesis 4: There is no difference in the Emotional and Social Intelligence quotient of EdD graduates and EdS students.

Null Hypothesis 5: There is no difference in the Emotional and Social Intelligence quotient of EdD graduates and EdS graduates

Null Hypothesis 6: There is no difference in Grit scores of EdD students and EdS students.

Null Hypothesis 7: There is no difference in Grit scores of EdD students and EdS graduates.

Null Hypothesis 8: There is no difference in Grit scores of EdD students and EdD graduates.

Null Hypothesis 9: There is no difference in Grit scores of EdD graduates and EdS students.

Null Hypothesis 10: There is no difference in Grit scores of EdD graduates and EdS graduates.

The researcher developed four research questions aligned with the purpose of the study.

Research Questions

RQ1: How do EdD students and graduates perceive Emotional and Social Intelligence?

RQ2: How do EdS students and graduates perceive Emotional and Social Intelligence?

RQ3: How do EdD students and graduates perceive grit?

RQ4: How do EdS students and graduates perceive grit?

Data Collection

The President of the researched university provided approval to email participants to conduct the study. The researcher arranged appointments with instructors who taught the researched population through obtaining a list of EdD/EdS courses spring and summer 2017 from the course listing provided on the researched university's website. The researcher contacted instructors via e-mail (see Appendix C) for permission to visit each class offered, with the intent to reach all students eligible to participate. The class visit consisted of the following: introduction and explanation of the study and an email sign up to volunteer for the surveys. Protection of the participant's identity was secure by only asking for the student's email address for delivery of the survey links provided by the researcher. The researcher altered the data collection method for the EdS students by requesting the EdS dean email all enrolled students on behalf of the researcher. The additional method was to gain additional participants due to the low initial response rate

(N=10) from the classroom visits. The researcher thought the invitation from the dean would have increase the EdS student participant number.

The researcher's Chair obtained contact information (last known email list) of all EdD/EdS graduates from the researched university's alumni office. Graduates received an e-mail from the researcher's Chair with an invitation to participate in study (see Appendix E). The invitation included the background of the study and the researcher's email address and allowed the EdD/EdS graduate to volunteer for the study. Once the researcher received an email confirming participation in the study, two survey links were emailed in return for completion.

The researcher interviewed 10 EdD students. The researcher authored the interview questions adding value to the research design. The interviews were on a volunteer basis of those students which agreed to participate in the originally designed study. The researcher arranged phone interviews, recorded and later transcribed, and coded for common themes. The method added data due to the lack of EdS student/graduates participating in the study. The researcher hoped to add to the qualitative aspect of the study.

Procedure

The researcher obtained the raw data from ESCI self-service site agreed by the conditions of Hay Group and the researcher (see Appendix H). If the minimum of 30 participants for each category did not participate in the study, the researcher completed one of the following: re-sent the email invitation to the EdD/EdS students and graduates (see Appendix D and E), researcher contacted EdD/EdS students and graduates by sending a letter via mail address provided by the institution (see Appendix F and G). The

procedure to send an invitation via mail did not occur due to the change in policy of the researched university. The process continued until the minimum number of participants became available. Once all necessary data surfaced from the assessments, the researcher would perform a stratified random sampling minimum of 30 and maximum of 50 for statistical analysis of the assessment.

Next, the researcher accessed Qualtrics for the 12-Item Grit Scale responses. If the minimum of 30 participants for 12-Item Grit Scale (for each category) did not participate in the study, the researcher completed one of the following: researcher re-sent the email invitation to the EdD/EdS students and graduates (see Appendix D and E). Researcher contacted EdD/EdS students and graduates by sending a letter via mail address provided by the institution (see Appendix F and G). The procedure to send an invitation via mail did not occur due to the change in policy of the researched university. The process continued until the minimum number of participants became available. Once all the necessary data emerged from the assessment, the researcher would perform a stratified random sampling, minimum of 30 and maximum of 50 for statistical analysis of the assessment. After the necessary data appeared from the assessments via Hay Group self-service site (ESCI) and Qualtrics (12-Item Grit Score), the researcher analyzed the data as following: The data was quantified from the ESCI and 12-Item Grit Scale using a *t*-test for independent means to compare the scores of each category for each assessment. The researcher obtained data submitted to Qualtrics in response to the survey questions. If the minimum of 15, did not participate in the study, the researcher completed one of the following: researcher re-sent the email invitation to the EdD/EdS students and graduates (see Appendix D and E). Researcher contacted EdD/EdS students and

graduates by sending a letter via mail address provided by the institution (see Appendix F and G). The procedure to send an invitation via mail was not conducted due to the change in policy of the researched university. The process continued until the achievement of the minimum participants. Once the necessary data surfaced, the researcher obtained the responses from each of the categories, i.e., EdD student, EdS graduate. Next, the researcher assigned an identifier for every response to organize the data (Fraenkel et al., 2015). The researcher coded the data to further protect the privacy of the individual and was identified as follows: EdDs 1, 2, 3..., EdSs1, 2, 3..., EdDg 1, 2, 3..., EdSg 1, 2, 3... (see Appendix B). The researcher evaluated the survey questions for each category, reviewed, transcribed, and coded for common themes and relevance to the research questions of this study. The researcher noted the results of the study was shared with Hay Group and any participants who requested the results.

The researcher, in the original research design, proposed using a *t*-test for independent means to determine if a significant difference existed of the independent groups; EdD student/graduates and EdS student/graduate combinations. The researcher was unable to analyze the following null hypotheses #1, 2, 4, & 5-10 due to the lack of participants. The researcher believed the low response rate could be due to the lack of importance to the dissertation process.

Summary

The study originally pursued the potential differences among ESC and grit scores of EdD/EdS students and graduates. The researcher originally proposed to analyze null hypotheses 3 and 8 using a *t*-test to determine a difference of the independent means. Hypotheses 1, 2, 4, 5, 6, 7, 9, and 10 was not completed due to insufficient participants

after repeated requests for participation. Although the researcher was unable to compare those scores and perception of EdS students/graduates, the mixed-methods study allowed the researcher to better understand the emotional and social competencies and grit scores among EdD students and graduates. The next chapter outlined the quantitative and qualitative results analyzed by the researcher which measured the ESCI and grit levels in EdD students and graduates. In addition, the researcher reported the results connected to understanding the perception of the researched population on emotional and social intelligence and grit. Chapter Five discussed the summary of the research findings and implications, along with recommendations to the fields of ESC and grit in relation to education.

Chapter Four: Results

Introduction

The analysis in Chapter Four aimed to explore the relationship between ESC and grit scores among doctoral student/graduates and specialist student/graduates in a private four-year college. The analysis also examined the doctoral student/graduate's and specialist student/graduate's perception in relation to ESI and grit. In addition, the researcher sought to determine if the data resulted in a rejection of the null hypotheses. The researcher utilized a mixed-method approach with online assessments specific to each population studied. Participants accessed links to complete the ESCI-U and 12 Item Grit Scale via email which also included open-ended questions to capture the perception of questioned and grit. Once the participants completed all surveys, the researcher analyzed and stored the data in a password-protected file. The researcher then coded and organized the open-ended survey questions and analyzed the phone interviews for common themes. In Chapter Four the researcher presented the hypotheses and research questions as described in a previous chapter, with the quantitative and qualitative data analysis.

Null Hypotheses and Research Questions

The researcher investigated the following 10 null hypotheses for the study:

Null Hypothesis 1: There is no difference in Emotional and Social Intelligence quotient of EdD students and EdS students.

Null Hypothesis 2: There is no difference in Emotional and Social Intelligence quotient of EdD students and EdS graduates.

Null Hypothesis 3: There is no difference between Emotional and Social Intelligence quotient of EdD students and EdD graduates.

Null Hypothesis 3a: There is no difference in the emotional self-awareness quotient of EdD students and EdD graduates.

Null Hypothesis 3b: There is no difference in the achievement orientation quotient of EdD students and EdD graduates.

Null Hypothesis 3c: There is no difference in the adaptability quotient of EdD students and EdD graduates.

Null Hypothesis 3d: There is no difference in the emotional self-control quotient of EdD students and EdD graduates.

Null Hypothesis 3e: There is no difference in the positive outlook quotient of EdD students and EdD graduates.

Null Hypothesis 3f: There is no difference in the empathy quotient of EdD students and EdD graduates.

Null Hypothesis 3g: There is no difference in the organizational awareness quotient of EdD students and EdD graduates.

Null Hypothesis 3h: There is no difference in the conflict management quotient of EdD students and EdD graduates.

Null Hypothesis 3i: There is no difference in the coach and mentor quotient of EdD students and EdD graduates.

Null Hypothesis 3j: There is no difference in the inspirational leadership quotient of EdD students and EdD graduates.

Null Hypothesis 3k: There is no difference in the influence competency quotient of EdD students and EdD graduates.

Null Hypothesis 3l: There is no difference in the teamwork quotient of EdD students and EdD graduates.

Null Hypothesis 4: There is no difference in the Emotional and Social Intelligence quotient of EdD graduates and EdS students.

Null Hypothesis 5: There is no difference in the Emotional and Social Intelligence quotient of EdD graduates and EdS graduates

Null Hypothesis 6: There is no difference in Grit scores of EdD students and EdS students.

Null Hypothesis 7: There is no difference in Grit scores of EdD students and EdS graduates.

Null Hypothesis 8: There is no difference in Grit scores of EdD students and EdD graduates.

Null Hypothesis 9: There is no difference in Grit scores of EdD graduates and EdS students.

Null Hypothesis 10: There is no difference in Grit scores of EdD graduates and EdS graduates.

Research Questions

Research Question 1: How do EdD students and graduates perceive Emotional and Social Intelligence?

Research Question 2: How do EdS students and graduates perceive Emotional and Social Intelligence?

Research Question 3: How do EdD students and graduates perceive grit?

Research Question 4: How do EdS students and graduates perceive grit?

ESCI-U Scoring

As indicated in Chapter Three, the ESCI-U instrument contained 68 statements connected with one of the competencies. The participant rated themselves on the self-perceived frequency of the demonstrated behavior named in the statement. The rating contained options with a point value; never (1), rarely (2), sometimes (3), often (4), consistently (5), and don't know (0). The researcher averaged the scores for each participant to determine if a difference existed in each of the competencies. To gain the overall score of the clusters the researcher then averaged the competencies related to each of the clusters: self-awareness, social awareness, self-management, and relationship management. The results informed the participant the areas which could use improvement depending on how frequently the attribute surfaced according to the scoring ledger.

Null Hypothesis 1: There is no difference in the Emotional and Social Intelligence quotient of EdD students and EdS students.

The researcher analyzed participant data from the ESCI-U instrument to calculate the participant rate of EdD students (n=19) and EdS students (n=10). Fraenkel et al. (2015) stated, "Some sample sizes, of course are obviously too small. Samples with 1 or 2 or 3 individuals, for example, are so small that they cannot possibly be representative" (p. 103). In addition, Bluman (2013) noted samples of "a specific size are selected from a population, the means of these samples will vary about the population mean, and the distribution of the sample means will be approximately normal when the sample size is

30 or more” (p. 401). Due to the insufficient response from the EdS student population and consultation with the researcher’s dissertation committee, the hypothesis was unable to be statistically analyzed.

Null Hypothesis 2: There is no difference in the Emotional and Social Intelligence quotient of EdD students and EdS graduates.

The researcher analyzed participant data from the ESCI-U instrument and calculated the participant rate of EdD students (n=19) and EdS graduates (n=4). In addition, Bluman (2013) noted samples of “a specific size are selected from a population, the means of these samples will vary about the population mean, and the distribution of the sample means will be approximately normal when the sample size is 30 or more” (p. 401). Due to the insufficient response from the EdS student population and consultation with the researcher’s dissertation committee, the hypothesis was unable to be statistically analyzed.

Null Hypothesis 3: There is no difference between the Emotional and Social Intelligence quotient of EdD students and EdD graduates.

Null Hypothesis 3a: There is no difference between the emotional self-awareness quotient of EdD students and EdD graduates.

The researcher ran an independent sample *t*-test to determine if the competency scores for emotional self-awareness were different for EdD students and graduates. A preliminary test of variances revealed the variances were equal. The *t*-test showed scores for the students (M = 4.32, SD = 0.532) were not significantly different from the scores of the graduates (M = 4.25, SD = 0.461); $t(35) = -0.465$, $p = 0.6450$. Analysis indicated no difference between EdD students and graduates for the emotional self-awareness

competency. The competency, one of the four clusters stood alone when considering the overall score related to ESI.

Null Hypothesis 3b: There is no difference between the achievement orientation quotient of EdD students and EdD graduates.

The researcher ran an independent sample *t*-test to determine if the competency scores for achievement orientation were different for EdD students and graduates. A preliminary test of variances revealed the variances were equal. The *t*-test showed the scores for the students ($M = 4.81$, $SD = 0.309$) were not significantly different from the scores of the graduates ($M = 4.72$, $SD = 0.269$); $t(35) = -0.868$, $p = 0.3913$. Analysis indicated no difference between EdD students and graduates for the achievement orientation competency, a component to the self-management cluster. The researcher accepted the null hypothesis.

Null Hypothesis 3c: There is no difference between the adaptability quotient of EdD students and EdD graduates.

The researcher ran an independent sample *t*-test to determine if the competency scores for adaptability were different for EdD students and graduates. A preliminary test of variances revealed the variances were equal. The *t*-test showed the scores for the students ($M = 4.38$, $SD = 0.347$) was not significantly different from the scores of the graduates ($M = 4.34$, $SD = 0.479$); $t(35) = -0.328$, $p = 0.7446$. Analysis indicated no difference between EdD students and graduates for the adaptability competency, a component to the self-management cluster. The researcher accepted the null hypothesis.

Null Hypothesis 3d: There is no difference between the emotional self-control quotient of EdD students and EdD graduates.

The researcher ran an independent sample *t*-test to determine if the competency scores for emotional self-control were different for EdD students and graduates. A preliminary test of variances revealed the variances were equal. The *t*-test showed the scores for the students ($M = 4.27$, $SD = 0.464$) were not significantly different from the scores of the graduates ($M = 4.19$, $SD = 0.505$); $t(35) = -0.529$, $p = 0.5998$. Analysis indicated no difference between EdD students and graduates for the emotional self-control competency, one of the four factors to the overall score of self-management. The researcher accepted the null hypothesis.

Null Hypothesis 3e: There is no difference between the positive outlook quotient of EdD students and EdD graduates.

The researcher ran an independent sample *t*-test to determine if the scores for positive outlook were different for EdD students and graduates. A preliminary test of variances revealed the variances were equal. The *t*-test showed the scores for the students ($M = 4.47$, $SD = 0.519$) were not significantly different from the scores of the graduates ($M = 4.53$, $SD = 0.379$); $t(35) = 0.434$, $p = 0.6669$. Analysis indicated no difference between EdD students and graduates for the positive outlook competency, a competency to determine the score of self-management, one of the four clusters related to ESI. The researcher accepted the null hypothesis.

Null Hypothesis 3f: There is no difference between the empathy quotient of EdD students and EdD graduates.

The researcher ran an independent sample *t*-test to determine if the scores for empathy were different for EdD students and graduates. A preliminary test of variances revealed the variances were equal. The *t*-test showed the scores for the students ($M =$

4.4, SD = 0.405) were not significantly different from the scores of the graduates (M = 4.17, SD = 0.454); $t(35) = -1.571$, $p = 0.1251$. Analysis indicated no difference between EdD students and graduates for the empathy competency, one of the two competencies in the social awareness cluster. The researcher accepted the null hypothesis.

Null Hypothesis 3g: There is no difference between the organizational awareness quotient of EdD students and EdD graduates.

The researcher ran an independent sample t -test to determine if the scores for organizational awareness were different for EdD students and graduates. A preliminary test of variances revealed the variances were equal. The t -test showed the scores for the students (M = 4.51, SD = 0.428) were not significantly different from the scores of the graduates (M = 4.51, SD = 0.456); $t(35) = -0.032$, $p = 0.9745$. Analysis indicated no difference between EdD students and graduates for the organizational awareness competency. Organizational awareness was also used to determine the overall score of social awareness. The researcher accepted the null hypothesis.

Null Hypothesis 3h: There is no difference between the conflict management quotient of EdD students and EdD graduates.

The researcher ran an independent sample t -test to determine if the scores for conflict management were different for EdD students and graduates. A preliminary test of variances revealed the variances were equal. The t -test showed the scores for the students (M = 4.27, SD = 0.525) were not significantly different from the scores of the graduates (M = 4.23, SD = 0.501); $t(35) = -0.239$, $p = 0.8127$. Analysis indicated no difference between EdD students and graduates for the conflict management competency,

a component to the relationship management cluster. The researcher accepted the null hypothesis.

Null Hypothesis 3i: There is no difference between the coach and mentor quotient of EdD students and EdD graduates.

The researcher ran an independent sample *t*-test to determine if the scores for coach and mentor were different for EdD students and graduates. A preliminary test of variances revealed the variances were equal. The *t*-test showed the scores for the students ($M = 4.68$, $SD = 0.461$) were not significantly different from the scores of the graduates ($M = 4.36$, $SD = 0.629$); $t(35) = -0.594$, $p = 0.5564$. Analysis indicated no difference between EdD students and graduates for the coach and mentor competency, a component to relationship management cluster when measuring ESI. The researcher accepted the null hypothesis.

Null Hypothesis 3j: There is no difference between the inspirational leadership quotient of EdD students and EdD graduates.

The researcher ran an independent sample *t*-test to determine if the scores for inspirational leadership competency were different for EdD students and graduates. A preliminary test of variances revealed the variances were equal. The *t*-test showed the scores for the students ($M = 4.29$, $SD = 0.433$) were not significantly different from the scores of the graduates ($M = 4.42$, $SD = 0.503$); $t(35) = 0.826$, $p = 0.4142$. The analysis indicated no difference between EdD students and graduates for the inspirational leadership competency, included in the relationship management competency. The researcher accepted the null hypothesis.

Null Hypothesis 3k: There is no difference between the influence competency quotient of EdD students and EdD graduates.

The researcher ran an independent sample *t*-test to determine if the scores for the influence competency were different for EdD students and graduates. A preliminary test of variances revealed the variances were equal. The *t*-test showed the scores for the students ($M = 4.26$, $SD = 0.508$) were not significantly different from the scores of the graduates ($M = 4.31$, $SD = 0.441$); $t(35) = 0.237$, $p = 0.8144$. Analysis indicated no difference between EdD students and graduates for the influence competency, included in scoring the relationship management piece. The researcher accepted the null hypothesis.

Null Hypothesis 3l: There is no difference between the teamwork quotient of EdD students and EdD graduates.

The researcher ran an independent sample *t*-test to determine if the competency scores for teamwork were different for EdD students and graduates. A preliminary test of variances revealed the variances were equal. The *t*-test showed the scores for the students ($M = 4.6$, $SD = 0.352$) were not significantly different from the scores of the graduates ($M = 4.67$, $SD = 0.300$); $t(35) = 0.422$, $p = 0.6753$. Analysis indicated no difference between EdD students and graduates for the teamwork competency, a competency within the relationship management cluster. The researcher accepted the null hypothesis.

Null Hypothesis 4: There is no difference between Emotional and Social Intelligence quotient of EdD students and EdD graduates.

The researcher analyzed participant data from the ESCI-U instrument and calculated the participant rate EdD graduate ($n=18$) and EdS students ($n=10$). In

addition, Bluman (2013) noted samples of “a specific size are selected from a population, the means of these samples will vary about the population mean, and the distribution of the sample means will be approximately normal when the sample size is 30 or more” (p. 401). Due to the insufficient response from the EdS student population and consultation with the researcher’s dissertation committee, the hypothesis was unable to be statistically analyzed.

Null Hypothesis 5: There is no difference in the Emotional and Social Intelligence quotient of EdD graduates and EdS graduates

The researcher analyzed participant data from the ESCI-U instrument and calculated the participant rate EdD graduate (n=18) and EdS graduates (n=4). In addition, Bluman (2013) noted samples of “a specific size are selected from a population, the means of these samples will vary about the population mean, and the distribution of the sample means will be approximately normal when the sample size is 30 or more” (p. 401). Due to the insufficient response from the EdS student population and consultation with the researcher’s dissertation committee, the hypothesis was unable to be statistically analyzed.

Although the researcher was unable to test the hypotheses which included the EdS students and graduates the overall scoring of ESI of the EdD students and graduates was tested. The ESI-U was developed to assess the competencies related to four main clusters relevant to ESI. The EdD student and graduates did not differ in any of the clusters as indicated in Table 3. The researcher concluded the ESI of EdD students and graduates were equal and categorized as often being used in the studied population.

Table 3
ESCI Results by Cluster

Variable	EdD	t(35)	p	EdD
	Students			Graduates
	M (SD)			M (SD)
Clusters				
Self Awareness	4.32 (0.5321)	-0.465	0.645	4.25 (0.4617)
Self-Management	4.44 (0.2950)	-0.084	0.9335	4.43 (0.3183)
Social Awareness	4.45 (0.3701)	-1.062	0.2954	4.32 (0.4066)
Relationship Management	4.35 (0.3025)	0.158	0.8752	4.37 (0.4416)

Note : MD = Median, SD = Standard Dievation

$p = .05$

12-Item Grit

As noted in Chapter Three, the 12-Item Grit Scale measured the level of grit in each participant and ultimately each group. Each participant read a statement and selected the best response which described the individual participant. Each participant response received a point value (see Table 4) and to deliver the score the researcher totaled the points and divided by 12. The maximum score received was a 5, deemed as extremely gritty, and the lowest on the scale was 1, not gritty at all.

Table 4
12-Item Grit Scale Scoring

Questions 1, 4, 6, 9, 10, 12	Questions 2, 3, 5, 7, 8, 11		
Not Like Me At All	1	Not Like Me At All	5
Not Much Like Me	2	Not Much Like Me	4
Somewhat Like Me	3	Somewhat Like Me	3
Mostly Like Me	4	Mostly Like Me	2
Very Much Like Me	5	Very Much Like Me	1

Duckworth, A.L., Peterson, C., Matthews, M.D., & Kelly, D.R. (2007). Grit: Perseverance and passion for long-term goals. *Journal of Personality and Social Psychology*, 9, 1087-1101.

Null Hypothesis 6: There is no difference in Grit scores of EdD students and EdS students.

The researcher analyzed participant data from the 12-Item Grit instrument and calculated the participant rate EdD students (n=23) and EdS students (n=1). In addition, Bluman (2013) noted samples of “a specific size are selected from a population, the means of these samples will vary about the population mean, and the distribution of the sample means will be approximately normal when the sample size is 30 or more” (p. 401). Due to the insufficient response from the EdS student population, and consultation with the researcher’s dissertation committee, the hypothesis was unable to be statistically analyzed.

Null Hypothesis 7: There is no difference in Grit scores of EdD students and EdS graduates.

The researcher analyzed participant data from the 12-Item Grit instrument and calculated the participant rate EdD students (n=23) and EdS graduates (n=2). In addition, Bluman (2013) noted samples of “a specific size are selected from a population, the means of these samples will vary about the population mean, and the distribution of the sample means will be approximately normal when the sample size is 30 or more” (p. 401). Due to the insufficient response from the EdS student population, and consultation with the researcher’s dissertation committee, this hypothesis was unable to be statistically analyzed.

Null Hypothesis 8: There is no difference in Grit scores of EdD students and EdD graduates.

The researcher ran an independent sample *t*-test to determine if the composite grit scores were different for EdD students and graduates. A preliminary test of variances revealed the variances were equal. The *t*-test showed the scores for the students ($M =$

4.06, SD = 0.471) were not significantly different from the scores of the graduates (M = 4.26, SD = 0.472); $t(35) = 1.363$, $p = 0.1807$. Analysis indicated no difference between EdD students and graduates for the overall grit score. The researcher accepted the null hypothesis.

Null Hypothesis 8a: There is no difference in Grit statements of EdD students and EdD graduates.

The researcher ran independent sample *t*-test on each of the twelve statements to determine if there was a difference in responses for EdD students and graduates. A preliminary test of variances revealed the variances were equal, with one exception. The *t*-test showed no difference on all statements except #2, “New ideas and projects sometimes distract me from previous ones.” A preliminary test of variances revealed the variances were not equal for statement 2. The *t*-test showed the scores for the students (M=2.95, SD= .928); were significantly different from the scores of the graduates (M=3.77, SD= 1.060); $t(35)=2.64$, $p=.0118$. Analysis indicated a difference between EdD students and graduates. The researcher noted EdD graduates average response to the statement was equal to “somewhat like me”, while EdD students reported “mostly like me”; Table 5 represented the data on all 12 statements.

Table 5
12-Item Grit Statements

Variable	EdD Students		p	EdD Graduates
	M (SD)	t (35)		M (SD)
Statement				
1. I have overcome setbacks to conquer an important challenge.	4.43(0.895)	-0.179	0.086	4.388(.697)
2. New ideas and projects sometimes distract me from previous ones.	2.95 (0.925)	2.641	0.012	3.77 (1.060)
3. My interests change from year to year	3.39 (1.19)	0.827	0.413	3.72 (1.36)
4. Setbacks don't discourage me.	3.91 (1.20)	0.086	0.932	3.94 (1.10)
5. I have been obsessed with a certain idea or project for a short time but later lost interest.	3.78 (1.04)	0.986	0.33	4.11 (1.07)
6. I am a hard worker.	4.73 (0.448)	1.037	0.306	4.88 (0.471)
7. I often set a goal but later choose to pursue a different one.	3.91 (0.996)	1.103	0.277	4.22 (0.732)
8. I have difficulty maintaining my focus on projects that take more than a few months to complete.	4.13 (1.01)	0.45	0.655	4.27 (1.07)
9. I finish whatever I begin	4.52 (0.593)	0.839	0.406	4.66 (0.485)
10. I have achieved a goal that took years of work.	4.73 (0.541)	0.565	0.575	4.83 (0.514)
11. I become interested in new pursuits every few months.	3.43 (1.12)	0.195	0.847	3.5 (0.985)
12. I am diligent.	4.78 (0.518)	0.347	0.73	4.83 (0.383)

Note. MD=Median; SD= Standard Deviation.

Duckworth, A.L., Peterson, C., Matthews, M.D., & Kelly, D.R. (2007). Grit: Perseverance and passion for long-term goals. *Journal of Personality and Social Psychology*, 9, 1087-1101.

*p < .05.

Null Hypothesis 9: There is no difference in Grit scores of EdD graduates and EdS students.

The researcher analyzed participant data from the 12-Item Grit instrument and calculated the participant rate EdD graduates (n=18) and EdS students (n=1). In addition, Bluman (2013) noted samples of “a specific size are selected from a population, the means of these samples will vary about the population mean, and the distribution of the sample means will be approximately normal when the sample size is 30 or more” (p. 401). Due to the insufficient response from the EdS student population and consultation with the researcher’s dissertation committee, the hypothesis was unable to be statistically analyzed.

Null Hypothesis 10: There is no difference in Grit scores of EdD graduates and EdS graduates.

The researcher analyzed participant data from the 12-Item Grit instrument and calculated the participant rate EdD graduates (n=18) and EdS graduates (n=2). In addition, Bluman (2013) noted samples of “a specific size are selected from a population, the means of these samples will vary about the population mean, and the distribution of the sample means will be approximately normal when the sample size is 30 or more” (p. 401). Due to the insufficient response from the EdS student population and consultation with the researcher’s dissertation committee, the hypothesis was unable to be statistically analyzed.

The researcher authored open-ended survey questions to gain a deeper understanding of ESI and grit. The questions mirrored the components and ideology as in the ESCI-U tool and the grit survey used for the quantitative piece. Additional

interview questions allowed the researcher to gain a well-defined understanding the researched population received ESI and grit

Research Question 1: How do EdD students and graduates perceive Emotional and Social Intelligence?

The open-ended questions developed by the researcher captured the competency areas of self-awareness, self-management, social awareness, and relationship management (see Table 6). The researcher sought what ESI meant to the studied population. When asked to describe a time when a decision was made and how the participant knew to make a specific decision the researcher discovered several themes including, career, education, and family.

Table 6

Emotional and Social Intelligence Open-Ended Questions 1,3,5,8,11, 13

1. Describe a time when you made a decision, how did you know to make that particular decision? (EI-Self Awareness)
 3. How do others know that you are listening? (EI-Social Awareness-Empath)
 5. Describe a time when someone made a decision different than yours? (EI-Relationship Management-Conflict Management)
 7. You are responsible for evaluating others on their performance. You have to address a negative situation; how do you provide feedback to that individual? (EI-Relationship Management-Coach and Mentor).
 8. Two of your co-workers are having a verbal argument in your office. They are fighting over who is responsible for the work load your boss assigned to all three of you. How do you handle the situation? (EI-Self Management-Emotional Self Control)
 11. What is Emotional Intelligence?
 13. Describe a time when you faced change and your response to that change. (EI-Self Management-Adaptability)
-

Note : Survey was authored by researcher.

Career. Participants shared situations of career advancement or change when faced with a decision. One student stated, ‘I made a decision to build my own business and it made me feel good to accomplish the goal’, another stated, ‘Last summer I decided that I wanted to pursue a new position in my district. I knew I wanted to make this decision because I felt I needed to grow professionally and personally.’ Self-awareness began to appear in the responses when one participant stated, ‘I listened to my intuition and I persisted. I worked hard at it. I developed a skill set that is unusual and has actually led me to bigger and better things’ the same participant included ‘my decision is what led me academically and professionally to where I am now.’ In addition, one participant included ‘my decision to seek National Board Certification (teaching) was based on the opportunity to do that at my employer’s expense, which meant no monetary loss.’ Lastly, another response to making a decision was ‘when I obtained my teaching degree. Education is my second career after 25 years in business management.’

Several responses included choosing a different position as many participants stated, ‘Once I made a decision to take a promotion, I knew that I could perform the job so that helped me decide.’ A participant responded by stating, ‘One time I had to decide to take a job which would be lower pay’, another included, ‘I had to make a decision about leading a school while my administration team left. I knew to make that decision of accepting to be in charge due to keeping the school set up and functional.’ In addition, a participant included, ‘The last big decision I made involve passing on a new job. My decision to switch careers was a difficult one.’ The responses included the competency of self-awareness and continued throughout the themes coded by the researcher.

Education. When asked about making a decision one participant stated ‘When I decided to return to the EdD program it just felt like the right time. I was free and ready to move forward in life.’ In addition, a participant stated, ‘Ultimately, after nineteen years my salary has risen substantially, and I am now pursuing my third career working to complete my EdD.’ Another stated, ‘I had to make a decision to go away to work on my dissertation. I knew it would be a good idea to complete the work which I had difficulty completing with other responsibilities.’ Moreover, a participant stated, ‘I made the decision to continue my schooling toward my doctorate degree during graduation for the Specialist degree.’ Furthermore, participants had self-awareness when making educational decisions as one response included, ‘I just started in the Doctorate program this semester and it took some time to make this decision’ another added, ‘A recent personal decision was choosing to go back to complete my EdD major decisions like this are not quick to be made.’

Family. The theme of family emerged when the statement ‘faced with making a decision’ was addressed. One student stated, ‘I included my family, particularly my husband, in my decision. It was the right choice for me and my family so I went back to school and pursued a career in education.’ Another student stated support from a spouse ‘encouraged me to pursue my goals’ while one participant answered the question by stating, ‘To pursue my Educational Specialist. I knew it was the right thing to do to support my family.’ Family was worth mentioning due to the self-awareness component participants had to include others when working on a goal.

When asked how others know when the participant listened several themes emerged including non-verbal cues, eye contact, and verbal interaction. The purpose was

to gain insight to the studied population's view on social awareness and empathy. Social awareness was noted as one of the clusters to describe ESI which included empathy. Non-verbal cues, eye contact, verbal interaction were themes which emerged; the researcher presented the participants responses in the following section.

Non-Verbal Cues. The researcher coded and collected responses to conclude non-verbal cues would be a method of another knowing one was listening. One participant stated, 'Others know that I am listening because I give them my whole attention.' Another included, 'people know that I am listening when I respond by nodding my head.' In addition, one stated, 'non-verbal gestures such as head nodding, smiling' while another stated they, 'have appropriate facial expressions.' Another participant expressed, 'If the non-verbals are matching mine, then they are listening. If they are completely different than mine, they generally are not listening.' In contrast, some responded by including another non-verbal cue as not saying anything. Responses included, 'I tend not to say much', 'I get quiet', and 'by my silence and facial expressions.'

Eye Contact. Eye contact was a popular theme as several participants responded with similar answers such as, 'because I look at them in the eye', 'look at them while talking', 'give them eye contact', 'by looking at them in the eyes when speaking'. In addition, others included 'Others know that I am listening because I look at them', 'I always try and give eye contact', 'I give them direct eye contact'.

Verbal Interaction. Verbal communication was a common theme among the participants which included statements such as 'I ask questions and then maybe the next time I see them I follow up from that previous conversation.' Another stated, 'Others

know that I am listening because I ask questions and repeat what they say to me. I affirm what I've heard and respond accordingly.' Others stated, 'paraphrase what they say', 'I know by doing probing questions and asking for feedback as I am presenting or talking to an individual or group' and 'I respond with small verbal encouragements. I also ask follow-up questions and rephrase statements to make sure I am understanding their meaning.' In addition, another participant included, 'Others know I am listening because I am able to repeat parts of what they say when I respond also, people who know me realize I do not waste my time or theirs on topics I have no interest.' One response included, 'someone who truly listened will be able to repeat back, question/clarify, build off of what was said, and/or respond appropriately', while another stated, 'I like to recap what they are discussing while interacting. Sometimes I will ask them to explain or expand on something they are discussing.' Various responses were provided to the researcher to capture the understanding of the social awareness component of ESI. When asked to describe a time when someone decided differently than the participant responses were coded. The competency, conflict management, resided under the relationship management cluster of ESI. Fraenkel et al. (2015) stated, 'after a researcher has defined as precisely as possible what aspects of the content are to be investigated, he or she needs to formulate categories that are relevant to the investigation' (p. 480). The researcher coded family, work, and school related themes.

Family. One participant stated, 'In a relationship with mixed families, there are several times when we make different decisions to achieve the same goal. As adults, we have a conversation behind closed doors and come up with a common solution.' In addition, 'I had a really good friend in my undergrad and we both had a hard time in

school. My friend ended up quitting school and dropping out and even though I wanted to quit I pushed myself to finish' was included as a response.

Work. Many responses emerged with work examples when asked to describe a time when someone made a decision different than the participant. One participant stated, 'My administrator and I have had many different decisions that did not work out for his favor. This made me upset due to me showing him the data and the probability of what would happen.' One stated, 'There was a division made about a student at my school who was pulled from services he was receiving through an IEP. Since it was a team decision I accepted it.' Another included, 'I made a decision to teach at a university when I had an opportunity to work with a close friend at a community college.' One simply stated, 'My friend wanted me to work with her, but it wasn't what I wanted. In a lot of other 'friend' type decisions, I usually follow what she wants because the things we are doing usually don't matter to me.'

One participant felt a disconnect at work and stated, 'Often times at work, because our main headquarters are located in San Francisco, we heard about things that effect our program without giving input. But, that's just part of the game.' Finally, another participant stated, 'My boss decided to take a different approach to work delegation than what I thought was best for the department. Even though her actions were different, I understood her point of view and I support her choice.'

School. Participants included education as a decision they made and others did not as one student thoroughly explained, 'When I began college, I dropped out after two years. I didn't know what to do, so I started working in a law office and took classes to become a paralegal. My friends chose to go away to school and graduated.' Another

student included, 'I had a really good friend in my undergrad and we both had a hard time in school. My friend ended up quitting school and dropping out and even though I wanted to quit I pushed myself to finish.' Furthermore, one participant stated, 'I have a good friend that made the decision to stay home with her children instead of pursuing a career. I listened to her when she was debating the issue, offered my support in any way I could...' Finally, another stated, 'I decided to go to college and my sister and two brothers did not. This can still cause resentment issues with my younger sister as she sometimes says spiteful things about me being college educated.'

The researcher sought to understand the relationship management, coach and mentor competencies related to ESI, participants were asked to provide feedback on a work situation. The researcher evaluated and coded the responses for common themes. The emergent areas included handling the situation by stressing success first, directly stating the problem and other ideas for providing a negative review of a worker. The researcher discussed the responses in the next section.

Success First. Several responses included addressing the worker with a positive comment then discuss the negative issue. One participant stated, 'I would sit the person down and give them praise for the positive things they are accomplishing and address the negative situation, and make sure they understand the problem.' Another included, 'I would bring out the positive attributes of the individual and address the negative behavior and how it needs to be corrected' and one stated, 'I would provide positive feedback to the individual then address the negative.' The relationship management situation provided the researcher with an insight to the competency in a real scenario. The participants included several suggestions to first focus on the worker's positive

performance as one stated, 'I want to make highlight the success first, then talk to the individual about what I feel needs improvement. I'll give that person an opportunity to respond and work with them to address the concerns' while two participants would use the sandwich approach, by stating something positive next negative, ending with another positive. Furthermore, participants included statements suggestions such as, 'Focus on the performance, not the individual', and 'I compliment the individual on their areas of success prior to discussing their areas of weakness.'

Direct Approach. The researcher discovered many participants would use a direct approach when providing a performance evaluation. One participant stated, 'I would explain to the person what the problem is and then explain what I or how I would need the problem to be fixed' while another added, 'I would not beat around the bush, I would let the worker know something is not going well and brainstorm what needs to happen to fix the issue.' Another participant stated, 'I contact them immediately to have a direct conversation about my expectations and the consequences if they are not met' while another stated, 'I prefer to approach a 'negative' as an opportunity for that person to grow. We all have things we can improve. This is often a necessary part of having that position.' Relationship management attributes continued throughout the review as one noted, 'I have been a principal of a school. I handled this a great deal. You tell them honestly and specifically what they are not doing well and provide them with support and clear direction to remedy the situation.'

Other Solutions. Asking about evaluating others provided the researcher with valuable information in relation to relationship management and coach and mentoring. The researcher found a few responses did not fit into the other two themes. One

participant stated, 'In person and according to the policy', another noted, 'review the job description', while one included, 'review the previous review period'. Additionally, one participant noted, 'Sometimes I will bounce something off the manager before speaking with the person. But, usually I will talk to the person directing about what happened and how we should correct this situation.'

The researcher aspired to understand the participants' view on self-management and emotional self-control, captured when participants responded to how an argument with two co-workers would be resolved. The researcher coded the responses and one theme emerged which included mediating in different ways; talking with them, listening, or instructing the co-workers to step away.

Mediation. The researcher found many participants responded in an adult manner by stating, 'I would ask them to stop arguing and remind them we are adults trying to work on a shared goal' while another stated, 'I would remind the co-workers that we are all adults and should chart out the goal and look to see what needs to be done to complete the goal and who would be best to make those goals happen.' In addition, one participant stated, 'I would try to calm them both down and talk it through, I would clear up any miscommunications and outline what everyone is responsible for.' One participant felt team effort was important when stated, 'I would remind the workers that we are all on a team and that we have to work together. I would map out the responsibilities everyone has maybe on a chart.' Another included the team approach by stating, 'step in and let both of them know that we all have to work together because we all will be responsible.' Another suggested, 'I would get out a pen and paper, and start listing the responsibilities for all, sometimes seeing it on paper helps.' Furthermore, one

would, 'Allow the coworkers to vent empathize without taking sides refer them to our superior that assigned us the responsibility of the work-load.' Similarly, one stated, 'I would insist that everyone needs to stop arguing and has to think about a solution. Set a time limit and when they are ready, have each one tell their solution and talk it over in a calm way.' Another would, 'interject and ascertain the root of the disagreement. I then assist with arriving at a common resolution.' Another simply said, 'I mediate it out by hearing both sides and seeing if we can come to a balance.' Similarly, one suggested, 'Take action. As a leader, you delegate who is responsible for what and who is best for the job. Have the co-workers leave your office confident in the direction they are heading.' One would resolve the problem and stated, 'Tell the two co-workers the work load is to be divided evenly between all three but as long as the work is completed correctly and on time. If this does not work, I will complete all of the work.' A different approach was noted by a participant to 'take control of the situation by taking responsibility for the work load and taking a larger portion of the task at hand leaving the other two with a manageable level of responsibility that they are comfortable with.' Finally, one simply stated, 'I would try to diffuse the situation and ask that we all take a break to calm our emotions and meet back together in an hour.'

When asked to define ESI two themes emerged which included emotions of oneself and emotions of others. The researcher analyzed each response to find a portion of participants who described ESI when asked to describe EI, by confusing the definition of EI and ESI; awareness of emotions of self, compared to the awareness of the emotions of others. Fraenkel et al. (2015) noted, "researchers prefer to use codes and themes as

aids in organizing content and arriving at a narrative description of findings” (p. 483).

The researcher discussed the themes in the following paragraphs.

Participants reported managing emotions when they described ESI. One stated, ‘How one manages their own feelings and emotions’ another stated, ‘The ability to recognize your own emotions and the emotions of others.’ Similarly, one included, ‘How well you can understand yourself. How a person is aware and in control of their emotions.’ One simply stated, ‘How you express yourself, etc.’ Furthermore, one participant thoroughly stated, ‘Emotional Intelligence is someone that can control or manage their emotions in many different circumstances. When you can internalize and control your emotions.’ One participant noted, ‘Emotional intelligence has a great deal to do with being self-aware and cognizant of emotions and emotional state. Emotional intelligence also involves the person being able to monitor one's emotions and respond appropriately in a variety of situations.’ One participant simply stated, ‘Understanding your own feelings/emotions and managing them.’ Finally, one stated, ‘When you can internalize and control your emotions.’

Some participants included the social intelligence piece when asked to describe ESI. One participant stated, ‘Emotional intelligence is how you understand the emotions of an individual or groups.’ Another added, ‘Emotional Intelligence is having a heightened sense of understanding and empathy for someone else or someone else's situation.’ Social intelligence continued to emerge when one stated, ‘Emotional intelligence is the ability to understand how situations may affect someone personally. It is also the ability to react in a reasonable manner to assist others with emotional problems.’ Similarly, another added, ‘Being able to determine how one feels as well as

how others may be feeling based on situations.’ Furthermore, one participant noted, ‘Emotional Intelligence is the ability to read other people’s emotional states, verbal and non-verbal cues. It’s being able to sympathize and empathize with a person you don’t necessary agree with.’ The emotions of others appeared in responses when noted ESI was described as, ‘The ability to interpret the emotions of others and how it will influence their thoughts, decisions, and attitudes towards the world.’ In addition, one participant noted, ‘Someone who understands emotions and how others are reacting with his or her emotions. Once someone understands another person’s emotions he or she can be intelligent on how to interact with others.’ Lastly, one response included, ‘Understanding and reacting to people’s emotions and knowing how to guide and mold thinking and behavior.’

The researcher included a statement to capture how the researched population would respond to change, which mirrors self-management and adaptability. The researcher coded the responses and found common themes as stated in previous competencies. Themes included work, family, and education as a time when faced with change. The responses were discussed in the following section.

Work. The researcher discovered several work situations when coding the survey responses. One participant stated, ‘Change is hard to deal with and one time I had to fire an employee. It was difficult for the company. Other employees had to pick up shifts they normally did not work and that caused stress on everyone.’ Similarly, one participant stated, ‘One time I was faced with a change was when I was laid off and I was very upset, for a long period of time. It took me several months to bounce back, but I did.’ In addition, another stated, ‘I hate change! Yet, I experience it more than most. I

have moved for my job 5 times in 10 years. I hate it every time, but I manage.’ Another stressful change was revealed when one participant stated, ‘I faced change in my position, but have also experienced a change in the population of students I am working with. 73% of my students are on free and reduced lunch. Several of them homeless and dealing with trauma.’ Another simply stated, ‘When I decided to retire. It was difficult and frightening.’ Lastly, one participant shared, ‘change was when the manager transferred out of the department. It was a hard because she was the one that kept the departments running smoothly. I am usually open to change, but this I was not looking forward to.’

Other responses to change included optimistic statements such as, ‘I had to adjust to a new boss. I was open to see the positive talent and new ideas’ while another stated, ‘when a co-worker left I knew the work they did was important and I could count on them for various tasks. I accepted the change and still know there are things that individual did that I now look over.’ Other participants tried to make the best out of change and noted, ‘I’m currently involved in being placed in a new position. I’m facing the challenges and changes head on.’ Another had mixed feelings when stated, ‘I faced change when I switched schools within my district. My response to that change at first was a little worry, but I was excited for a new environment and a new challenge.’

Many participants reacted in a positive manner which would be a desirable ESI trait. One participant stated, ‘The last time I experienced change was when my employer tightened budgetary restrictions. My response to this was to think of ways to save money and adjust how we approach the financial structure.’ Another shared, ‘I faced changed when changing jobs. It was difficult at first, but I worked hard to learn everything I could

about the new position.’ Furthermore, another noted, ‘I faced a great change when I switched careers. I moved from a company where I earned the respect of my peers and superiors. I responded by pushing forward in my education and taking any opportunity.’ Lastly, one participant noticed the importance of supporting change when stated, ‘My husband decided to make a career shift and at the time we were working together. I thought about it from his perspective and offered my support.’

Research Question 2: How do EdS students and graduates perceive Emotional and Social Intelligence?

The researcher attempted to understand the perception of emotional and social intelligence of the EdS students and graduates. The researcher gained assistance from the EdS department chair who emailed all current EdS students to participate in the study. In addition, the researcher visited classes, as indicated in Chapter Three, to gain EdS student participants. The results from the EdS student population resulted in one participant completing the survey. The supervisor of this study sent 478 email invitations to EdS graduates with zero participating. Due to the sample size, the researcher was unable to answer research question 2.

Research Question 3: How do EdD students and graduates perceive grit?

The questions developed by the researcher were designed to capture the perception of grit among EdD students and graduates. The researcher’s approach allowed the participants to express views on grit and the traits attributed to grit. The following sections review of the responses from the questions indicated in Table 6. The researcher collected the responses from the survey tool used in the research and downloaded to a password protected file. Each question was coded by the researcher and

categorized common themes. When asked to describe a time participants worked toward a goal, three themes emerged and included school, career, and other.

School. When asked to describe a time participant worked toward a goal one stated, 'Working on my doctoral degree was a goal I had since I was young. I did not know if I was smart enough, but I realized that with determination and the skills to focus anything could be accomplished.' Another stated, 'When I started the master program..., I knew it would be hard, but I was not going to quit, and knowing it was only 15 months that helped. It was not forever.' In addition, one participant included, 'I worked towards my bachelor's degree with two students and worked two jobs being a single parent.' Other examples of goals included, 'I just finished my doctorate in October. I had to research, design, and review many different works and how they may affect my own work' another stated, 'My most current goal is to complete this doctoral program and walk across the stage with EdD behind my name.' One thoroughly stated, 'I have worked toward educational goals most of my adult life, starting with an associate degree, then working for years in my profession, going on to a bachelor degree, then Masters, and now pursuing a doctoral degree.' Another participant noted, 'One of the major ones was when I pursued my master's degree while working full time. I struggled with working late on papers and having an early meeting, going to class. I wanted my degree, and I got it.'

Goal setting in education became a common theme as one stated, 'I worked diligently to finish my education as quickly as possible. I completed the remaining two years of my bachelor's degree, two master's degrees, and I am in my last doctoral class; all within an eight-year time span.' Another noted, 'Three years ago I completed my MBA. I made sure that I allowed myself the time to focus on the knowledge I was

gaining. It was difficult, but I stayed focus on the end result.’ Furthermore, one response included, ‘The most significant goal I worked toward was my undergraduate degree. Throughout the five years it took me to complete the degree, there were additional challenges, including moving and supporting my children in the transition to a new school/district.’ Lastly one participant stated, ‘I am working on the requirements for my dissertation and attending classes to complete writing my dissertation. I am 84 years old.’ Education was an influence when working toward a goal and through the above statements the researcher was able to gain a deeper understanding of the perception of grit.

Career. Most of the responses to working on a goal were educational, however it is worth mentioning the career goals participants included. One participant stated, ‘I worked to learn a new job, while it took a few years I am still learning and will never give up.’ Furthermore, another noted, ‘When I decided to pursue the new position, I did my homework. I looked at district data and created a plan on how I would attack struggling skills. I also came prepared with questions to ask.’ In addition, a participant described a goal set to, ‘Start an evening program for chemical dependency. This allows people that work who cannot take time off to come get help. We finally have everything in place and the program starts March 6th. I am so excited.’ Lastly, another participant stated, ‘I manage a team of 18 people and I not only set goals for myself, but also for my team. A recent goal was creating a better welcoming environment for new employees.’ The statements stood out by the researcher due to the connection with grit and determination and deemed the responses important to understanding the perception of grit.

Other. Among the responses to working toward a goal, participants included a variety of responses the researcher categorized as other. One noted, ‘I think every day I work toward some type of goal whether it is long or short term. I like to make lists of what needs to be done and a timeline on when it needs to be done.’ Another participant included, ‘Trying to lose weight, that is a goal I set and I find it difficult to stay on track. I can get easily distracted.’ Likewise, another noted, ‘After I had our babies, I worked to lose the 50 pounds of baby weight I had gained.’ Similarly, ‘I set daily goals and work towards accomplishing them’ and ‘I set a goal to become a proficient knitter and with the help of my mom, YouTube, and the local knit lady, I made it happen!’ Another response involved financial components when a participant included, ‘I had a goal to pay off my credit cards and to find a way to pay them off. I worked up a budget plan and stuck with that plan till my cards were all paid off.’ Last of all, a participant stated, ‘As a college athlete, I constantly worked towards performance based goals. I believe the methodical training and persistence that was required in that arena helps me now to achieve goals outside of athletics.’

The researcher reviewed grit and discovered traits an individual would possess to be gritty or not as gritty. When asked to describe the type of worker the participant viewed themselves, many traits and characteristics emerged. Many of the characteristics which developed included, dedication, hard worker, persistent, and detail-oriented worker. One participant described themselves as, ‘Diligent, committed, loyal, and work like the business is my own no matter what I do.’ Another stated, ‘Dedicated, on time, organized, caring, driven, and focused.’ Similarly, a participant stated, ‘organized, detail oriented, committed, and caring worker’ while another stated, ‘I am a fair, detailed

worker who has the best interest of the company and my coworkers in mind.’ One simply stated, ‘I’m a very dependable and hardworking person.’

One statement focused on the grit terminology when describing work style. One stated, ‘I am a persistent worker. When I set a goal, I do not let up until I have achieved that to my satisfaction. I have had many sleepless nights in order to keep my life balanced.’ Many of the responses included being a hard worker, committed, devoted, and a team player. One participant stated, ‘I am detail-oriented with proven organizational, communication and leadership skills, which are required to transform concepts into operating realities. With my management abilities, I offer management and communication skills, which would transfer to many other environments.’ Other terms the participants described themselves included, ‘work-horse’, ‘work-a-holic’, ‘studious’, ‘Type-A overachiever’, and a ‘hardworking person.’

The researcher wanted to further understand the perception of grit by asking about a time when a goal was interrupted. The question allowed the researcher to examine how an individual would or did respond to change when working toward a goal. The common theme coded by the researcher was family and balancing both family and studies were discussed in the next section.

Family. The participants were asked if studies were interrupted by a family emergency and how would they handle the situation. One participant stated, ‘I will always focus on taking care of my family, school will come second’, while another added, ‘Family comes first before my studies no questions asked.’ Another participant stated, ‘I would always take care of family first. My studies can wait and if it would be long term I would make sure to get back into my studies as soon as possible’ while

another noted, 'I see what my role in the family emergency may be and take it from there.' One participant simply stated, 'Handle the family emergency and get my school work done in less time' while another noted, 'I prioritize family over anything...however, I will do everything I can to get back to my studies as quickly as possible.'

Family and Studies. The researcher sought further understanding of grit by exploring participant's reaction to a distraction such as an emergency when working toward a goal. One participant noted, 'I will take care of the emergency while continuing to complete my studies' similarly, another stated, 'I would forge through and do them both.' Other responses included, 'It may add a little time to my completion date but it wouldn't deter me from completion' while another stated, 'I would sacrifice any personal time that I had or sleep to get my work done.' In contrast to most responses, one participant stated, 'I have set a writing schedule for myself and try very hard to adhere to it, I have a tablet and laptop that I take with me if an out of town issue arises' while another stated, 'My family is supportive with all I do and it is really my husband who pushed me towards my degree. I try to stay ahead of my studies, just in case an emergency does arise.' The researcher concluded participants would place the family emergency first, yet still stay focused on the goal.

The researcher asked the participants what grit means. The purpose of the question was to understand if the researched populations could identify other characteristics connected with grit. Several responses mirrored the common synonyms of grit.

Grit. The researcher coded and organized the responses of the participants and discovered determination and tenacity as a common description of grit. One participant

noted, ‘Grit is the drive that a person has to complete a goal, how bad they want it, and what they are willing to do to achieve it’ another added, ‘Grit is the internal drive to finish something that you have started or been assigned.’ One participant stated, ‘Grit is overcoming every obstacle no matter what stands in your way’ while another added, ‘Grit is the ability to be successful when the odds are stacked against you.’ Other responses described grit as, ‘Persistence in working toward a goal regardless of the obstacles that may arise’ similarly one noted grit as, ‘Persistence, drive, and determination to achieve a goal.’ One participant simply noted, ‘Grit, or resilience, is an innate ability or drive to continue working toward a goal in spite of challenges’ while another stated, ‘Grit is resiliency. It's the ability to bounce back after setbacks.’ The researcher gained an insight to the perception of EdD students and graduates by asking the participants to define grit. One participant described grit as, ‘the feeling that if you work hard and stick with a project, you can get it done the right way. You make up your mind that you can do it and in spite of setbacks.’

The final question on the survey directed the participant to discuss a time when they were engaged and the factors which kept them engaged. The purpose was to gain a newfound perception of grit from the perspective of EdD students and graduates. The researcher coded and found three common themes throughout the responses: engaged with school, work, and other situations. The responses discussed in the next section were identified by the researcher as valuable statements addressing this question.

School. The participants described a time of engagement when discussing education. One participant stated, ‘A time when I was engaged was working on my master degree and I was wanting to better myself. I experienced a lot of long nights

working on my studies and exhaustion from work and family’, another added, ‘A time when I was engaged would be completing this survey. I was thinking of situations to answer the questions. At one point of time I was experiencing a break in concentration because of others in the house.’ Educational goals were expressed as engagement when one participant explained, ‘I was engaged working on an assignment and needed to finish it before the weekend. I was experiencing trouble concentrating because of the noise in my house. It took me longer to finish the project because of the distractions.’

Furthermore, one participant stated, ‘Being engaged in writing my literature review for my dissertation because it was an assignment. I was experiencing trepidation and frustration since I had a deadline to meet’, similarly, one noted, ‘When I was writing my dissertation. Because I want to get it done. Blockage and difficulties sometimes.’ Other responses included, ‘I am engaged when I am emerged in the learning process, whether I am the teacher or the student. I enjoy learning new things and challenging myself intellectually.’ In addition, ‘I’m frequently engaged in classes or workshops or even in group meetings at work. If the facilitator can challenge my thought process and stimulate me, I’ll respond to that. When I have those things, I am engaged.’ Another has a similar statement when noted, ‘In high school drama class when I was fully engaged in the class. I was experiencing a love of learning, one that I wanted to continue and I wanted to share that enthusiasm with others.’

Work. Engagement was discovered in the work setting by several participants. The researcher reviewed the responses and found one participant stated, ‘I was engaged to complete a task at work, I was engaged to meet a company goal and I experienced stress at first and then later when the goal was met I felt amazing.’ Another noted, ‘A

time I was engaged was working on a project at work. I was to complete a report and I experienced pressure, I think if my time management skills were better I could of completed it without the stress.’ Another participant experienced a similar situation and noted, ‘One time I was engaged I was working on a project at work, I was engaged because I wanted to complete the project on time. I was experiencing aggravation when I was interrupted.’ One participant stated, ‘I am engaged anytime my boss and I get to have a one on one discussion. I am experiencing joy because I love to learn and she teaches me something new every time I speak to her.’ The researcher concluded some participants considered work as a time of engagement, this research question provided a deeper understanding to the components of grit.

Other. A portion of the participants explained a time of engagement in various ways as one stated, ‘I am always engaged when I am listening to student read. It is essential that I am engaged in order to determine interventions that may help the student. I experience joy when I hear children read.’ Another explained, ‘The last time I was engaged was while watching a music concert. I was engaged because it was a new experience and involved multiple senses’ while one stated, ‘When I am able to have someone with passion sharing their knowledge and experience on a subject that can benefit me, such as an art history course with practical application, then I am most engaged.’ Finally, one participant added, ‘I had a phenomenal coach and teacher in high school that shared personal experiences. He had a way of captivating the audience and providing vivid details to make you feel like you were there.’ To conclude the researcher was able to explore EdD students and graduates perception of grit through the responses provided by the participants.

Research Question 4: How do EdS students and graduates perceive grit?

The researcher attempted to understand the perception of grit among EdS students and graduates by authoring open-ended questions see Table 7. The researcher gained assistance from the EdS department chair who emailed all current EdS students to participate in the study. In addition, the researcher visited classes as indicated in Chapter 3 to gain EdS student participants. The results from the EdS student population resulted in one participant completing the survey. The supervisor of this study sent 478 email invitations to EdS graduates with zero participating. Due to the sample size the researcher was unable to answer research question 4.

Table 7

Grit Open-Ended Questions 2, 4, 6, 9, 14

2. Describe a time when you worked toward a goal, what are some of the things that you did to reach it?
4. Describe the type of worker you are.
6. You are working toward earning a degree and there is a family emergency which will take time away from your studies. How will you handle the situation?
9. What is Grit?
14. Describe a time when you were engaged. Why were you engaged? What were you experiencing?

Note : Survey was authored by researcher.

In addition to the survey component of the study, the researcher added an interview tool which was submitted and approved by the Intuition Review Board. The purpose of the interview method was to add to the existing data collected by the survey component about ESI and grit. The participants were emailed and invited to participate, students who responded gave consent to participate by filling out a consent form and

emailing the form to the researcher. The researcher authored and conducted the questions as indicated in Table 8 and completed via phone interviews. The researcher recorded the interviews and later transcribed the participant responses.

Table 8

Interview Questions

Demographic Questions

- When did you begin the program?
 - Did you have transfer credits?
 - When is your expected graduation? Is this on track for what you wanted?
1. Why did you pursue an EdS? Why not an EdD? OR
What was the deciding factor to obtain the EdD degree?
 2. Describe any characteristics in your personality that are helpful for working toward your degree.
 3. Describe a time when someone put a lot of stress on you. How did you react?
 4. What do you do stay mentally focused with your school work?
 5. Describe a time someone at work or school had a bad day. What did you do to help the situation?
-

Note: Authored by the researcher.

The researcher continued to investigate the perception of ESI and grit beyond the survey tool used earlier in the chapter. Merriam and Tisdell (2015) stated, “In qualitative research a single case or small nonrandom purposeful sample is selected precisely because the researcher wishes to understand the particular in depth not to find out what is generally true of the many” (p. 254). Adding this component provided the researcher to explore beyond the ordinary degree of participation.

The researcher reviewed the responses from the interview participants and coded for common themes; all 10 participants were EdD students enrolled in summer 2017 classes at the researched university. The participants pursued a degree in the following

areas Higher Education Administration (n=5), Andragogy (n=3), and PK-12 Instructional Leadership (n=2). Two of the students started the program in 2014, three in 2015, three in 2016, and two in 2017. All students had transfer credits and progressed in programs according to individual plans.

When students were asked why pursue an EdD degree one stated, 'I love taking classes and as a high school principal, several colleagues have a terminal degree, I felt inferior to peers and wanted to fit in and have that desire to keep moving forward.' Another shared, 'This is the next step after earning a master degree and working around people with a terminal degree, I just felt I needed it', while another stated, 'to have more opportunities at work.' Another student expressed, 'I do presentations to the community on mental health issues and someone at my level should have more of a background and people would take me a little more serious with this title' and one simply stated, 'I want to better myself and I just love education.' The researcher found the one common theme was advancement opportunities within a career.

The researcher captured additional information through the interview process about the personality characteristics the students viewed as helpful while earning a degree. Several characteristics developed such as organized, strong willed, over-achiever, and determined. One student stated, 'You just have to be determined to get to the end, so I think determination and organization because you have to keep track of all the files, those are the main things' while another simply noted, 'I think I am really focused.' Other qualities emerged as one shared, 'I want to succeed so I have to have that drive. Also, grit. Do the hard stuff first, so I think drive and perseverance' while another stated, 'my determination, my push, my drive, and the want to better myself.'

The researcher recognized the responses were consistent with the findings from the 12-Item Grit Scale previously discussed.

In addition, the researcher sought to acquire insight of the student's reaction when presented with a stressful time. The responses varied among the students. One student responded by stating, 'The IRB process, I was ready to throw in the towel. It took me to the edge of the roof, like I'm ready to jump. I'm done.' The same student responded to the stressful IRB situation and explained, 'It was determination because I was like why go through all of this to throw it all away and still not complete your goal.' While another talked about the workload at their job as being overwhelming and the reaction to the stress was to work longer hours until the work was done. Another student shared a stressful time as needing to produce five pages of the literature review for a class. The student shared her response to the stress when stated, 'I started on it early and worked ahead because you never know what is going to happen. My husband helped out and told me to buckle down and do it.'

The researcher gained a deeper understanding of the students' grit tendencies when asked about a time, if any, when mental focus was interrupted and how they responded. One student described the loss of mental focus when she moved to help a sibling. The student was already attending classes prior to her move and thought she would continue seamlessly. The student stated, 'After 6-7 months I was like I have to do something, I have to figure this out. I lost a year toward my doctorate, but I pulled myself out of it.' One student shared the loss of mental focus with school when a child was born and schooling was interrupted. The same student went back to school and stated, 'I felt like I was in class with people that were further along and now I am just

really getting back into the groove of it.’ Another student shared a time when a house fire took her focus away from school and noted, ‘I got back within a week, once your basic needs are met you have to get back to whatever your priorities are, work, school, family.’ Lastly, one student stated, ‘at times when I lose mental focus I have reached out to others to keep on track.’

The last interview question provided further understanding of social awareness within the researched population. When asked to describe a time someone had a bad day and the reaction, one student described a time when a spouse was working on a project and needed to concentrate. The student stated, ‘I gave words of encouragement, supported however I could and left the house for hours.’ Another student explained co-workers as having a bad day and stated, ‘I try to take on their tasks,’ similarly, one stated, ‘I think the best way to help others is figuring out ways to help the person, prioritize.’ Lastly, one student shared, ‘other people get distracted at things that seem important at the time then in the end are not as important. Having a refocusing conversation, what are we doing to re-focus.’

Summary

The researcher presented findings and analysis for Null H3, Null H8, RQ1 and RQ3 in Chapter Four. The remaining hypotheses and research questions were unable to be analyzed due to an insufficient sample size. The quantitative analysis generated evidence to suggest the scores on the ESI assessment of EdD students were not more or less than EdD graduates. When the researcher analyzed the grit scores of EdD students and graduates, evidence suggested no statistical difference existed in the composite score. However, when each statement was analyzed the researcher found EdD graduates scored

higher on grit statement 2 meaning the statement “is not much like” the graduates was different than “somewhat like” the students. The qualitative data supported the results found in the ESI and grit instruments, for both EdD student and graduates. The following chapter discussed suggestions for the researched university to utilize the findings for improvements in current programs and admissions and recommendations for additional investigations.

Chapter Five: Discussion

The researcher discussed the results and analysis of data collected within the study; evaluated the results, cogitated the findings, and provided recommendations for future research. The purpose of the mixed-methods study was to measure emotional and social intelligence and grit among Educational Leadership students and graduates in a private four-year university; specifically, doctoral and specialist students/graduates. Many educators believed SAT and ACT scores provided students the adequate information for college readiness. To predict degree completion in college many admission requirements included assessment tests (Hochanadel, & Finamore, 2015). For the purpose of the study the researcher wanted to learn how EdD/EdS students and graduates would score on emotional and social intelligence and grit tests, specifically ESCI-U instrument, 12-Item Grit Scale, and 14 question survey authored by the researcher. The measurement of ESI competencies and grit, occurred due to the belief the two traits could be a predictor of success. The researcher utilized data from the ESCI-U and grit surveys sent to students and graduates via email. Lastly, the researcher conducted phone interviews with the researched population to further understand the perception of ESI and grit from one of the highest levels of education.

The information from the study provided the researched university with an insight into the graduate student population, specifically EdD students. The researcher hoped to explore both EdD and EdS students and graduates however, the researcher could not obtain an acceptable number of participants from the EdS population to test the hypotheses related to the specific group. Kothari (2004) stated, "If the sample size ('*n*') is too small, it may not serve to achieve the objectives and if it is too large, we may incur

huge cost and waste resources” (p. 174). The study intended to examine the scores between the researched groups for potential differences in ESI and grit scores. By analyzing a possible relationship between EdD and EdS students the researcher hoped to reveal knowledge of ESI and grit results to provide information to the researched university for admission purposes and overall academic support.

Results from the data showed no significant difference in composite scores of questioned and grit among EdD students and graduates. Given the results the researcher failed to reject the null hypotheses, indicating no difference in the ESI and grit scores of EdD students and graduates. Statement two of the 12-Item Grit Scale showed a difference among EdD students and graduate as indicated in Table 5. The statement ‘New ideas and projects sometimes distract me from previous ones’ was analyzed and resulted with the EdD students responding on average as *mostly like me* compared to the EdD graduates responding *somewhat like me*; a grittier response.

Hypotheses and research questions considered for the study included:

Hypotheses and Research Questions

Hypothesis 1: There is a difference in the Emotional and Social Intelligence quotient of EdD students and EdS students.

Hypothesis 2: There is a difference in the Emotional and Social Intelligence quotient of EdD students and EdS graduates.

Hypothesis 3: There is a difference in the Emotional and Social Intelligence quotient of EdD students and EdD graduates.

Hypothesis 3a: There is a difference in the emotional self- awareness quotient of EdD students and EdD graduates.

Hypothesis 3b: There is a difference in the achievement orientation quotient of EdD students and EdD graduates.

Hypothesis 3c: There is a difference in the adaptability quotient of EdD students and EdD graduates.

Hypothesis 3d: There is a difference in the emotional self-control quotient of EdD students and EdD graduates.

Hypothesis 3e: There is a difference in the positive outlook quotient of EdD students and EdD graduates.

Hypothesis 3f: There is a difference in the empathy quotient of EdD students and EdD graduates.

Hypothesis 3g: There is a difference in the organizational awareness quotient of EdD students and EdD graduates.

Hypothesis 3h: There is a difference in the conflict management quotient of EdD students and EdD graduates.

Hypothesis 3i: There is a difference in the coach and mentor quotient of EdD students and EdD graduates.

Hypothesis 3j: There is a difference in the inspirational leadership quotient of EdD students and EdD graduates.

Hypothesis 3k: There is a difference in the influence competency quotient of EdD students and EdD graduates.

Hypothesis 3l: There is a difference in the teamwork quotient of EdD students and EdD graduates.

Hypothesis 4: There is a difference in the Emotional and Social Intelligence quotient of EdD graduates and EdS students.

Hypothesis 5: There is a difference in the Emotional and Social Intelligence quotient of EdD graduates and EdS students.

Hypothesis 6: There is a difference in Grit scores of EdD students and EdS students.

Hypothesis 7: There is a difference in Grit scores of EdD students and EdS graduates.

Hypothesis 8: There is a difference in Grit scores of EdD students and EdD graduates.

Hypothesis 9: There is a difference in Grit scores of EdD graduates and EdS students.

Hypothesis 10: There is a difference in Grit scores of EdD graduates and EdS graduates.

Research Questions

RQ 1: How do EdD students and graduates perceive Emotional and Social Intelligence?

RQ 2: How do EdS students and graduates perceive Emotional and Social Intelligence?

RQ 3: How do EdD students and graduates perceive grit?

RQ 4: How do EdS students and graduates perceive grit?

Due to low participant rate at the beginning of the study, the researcher was unable to test all the original hypotheses developed in the original research design. The

researcher, with the help of committee members, created an alternative research plan by adding interview questions aligned to the qualitative component. Fraenkel et al. (2015) noted, “In qualitative research, structured and semi structured interviews are often best conducted toward the end of the study, as they tend to shape responses to the researcher’s perceptions of how things are” (p. 449) (see Table 9).

Table 9
Excluded Hypotheses and Research Questions

Hypotheses

- | | |
|----|---|
| H1 | There is a difference in the Emotional Intelligence quotient of EdD students and EdS students. |
| H4 | There is a difference in the Emotional Intelligence quotient of EdD graduates and EdS students. |
| H6 | There is a difference in Grit scores of EdD students and EdS students. |
| H9 | There is a difference in Grit scores of EdD graduates and EdS students. |

Research Questions

- | | |
|-----|--|
| RQ2 | How do EdS students and graduates perceive emotional intelligence? |
| RQ4 | How do EdS students and graduates perceive grit? |
-

Note : Table was authored by the researcher.

Results and Discussion

An analysis of the data collected revealed no difference between EdD students and graduates in ESI and grit composite scores. The researcher believed there may be a difference with a higher ESI and grit scores of the EdD graduates when compared to EdD students. The researcher believed a difference existed with an observable higher questioned and grit score of EdD students compared to EdS students and graduates. However, the researcher excluded the hypotheses and research questions concerning EdS students and graduates as indicated in the previous chapter due to insufficient participants.

Emotional and Social Intelligence Results

To determine the level of emotional and social intelligence, the researcher measured the competencies included in the ESCI-U instrument: achievement orientation, adaptability, conflict management, coach and mentor, empathy, emotional self-awareness, emotional self-control, inspirational leadership, influence, organizational awareness, positive outlooks, and teamwork. The analysis of the data revealed a consistent trend among EdD students and graduates. The evidence did not support the research Alternate Hypothesis 3: There was a difference in emotional and social intelligence quotient of EdD students and EdD graduates.

To understand the perception of ESI among EdD students and graduates, open ended statements allowed participants to provide a clearer understanding to the researcher. The results of the qualitative data provided the researcher with consistent testimony supporting the quantitative measures used in this study. Participants noted several competencies related to ESI when answering the open-ended statements. Regarding age, as noted earlier with grit, studies supported the element of age and education being a factor to high emotional intelligence meaning the older and educated individuals scored higher than others who had lower level of education (Andrade et al., 2016).

Grit Results

To determine the grit score the researcher utilized the 12-Item Grit Scale authored by Angela Duckworth. The analysis of the data discovered a steady trend among EdD students and graduates. The evidence did not support the research Alternate Hypothesis 8: There was a difference in grit scores of EdD students and EdD graduates. The work of

Duckworth (2016) revealed age as a factor when measuring grit and from a sample of American adults, Duckworth found older adults to be grittier than younger adults.

Duckworth (2016) noted, “one story says that our grit changes as a function of the cultural era in which we grow up. The other story says that we get grittier as we get older” (p. 89).

To understand the perspective of grit among EdD students and graduates the researcher presented open-ended statements to the participants. The coded themes became consistent with the overall composite scores from the 12-Item Grit Scale results. The participants collectively noted traits alike: determined, persistent, gritty, and resilient in work and life. The researcher also believed the traits found in the researched population would provide institutions with a guide when admitting perspective students in a program. The belief behind the thought stemmed from the researcher’s experience working with undergraduate students and the need to understand characteristics contributing to degree completion.

Additionally, the researcher believed EdD students and graduates would score higher in both ESI and grit than the EdS students and graduates. Since the sample size of the EdS population became underrepresented, the hypotheses related to EdS population was unable to be tested. The researcher gained an insight to the scores and perception of ESI and grit among the EdD population. The researcher selected the population studied due to the belief that the population, EdD and EdS would be among the highest level of academic achievement.

Conclusion

This research added to the body of knowledge on ESI and grit scores among EdD students and graduates by providing data on the relationship between the two. In addition, the research also added to the body of research on student and graduate perception about ESI and grit factors while pursuing a graduate degree. The findings also revealed how students and graduates cope and strive to complete an educational goal at the graduate level. The study further explored the individual competencies related to ESI and the statements in the grit survey.

The researched school benefited from the data gathered with respect to the EdD population. The findings confirmed the need of support from family members, peers, and faculty to graduate. In addition, the information would be useful when screening applicants for admission into a program. The ESI and grit assessments could determine applicant readiness for the challenge and commitment required for the program. In addition, the results from the study could help faculty members identify the students which may need extra support during the degree completion. The researcher contributed to the existing body of knowledge by conducting a study on the adult population which was found by the researcher as underrepresented. Additional research could provide the importance of improving a student's ESI and grit at the college level and beyond. As noted earlier, ESI and grit increases with age, therefore further research could provide the support to implement ESI and grit programs at all levels of education.

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Appendix A

EI and Grit Survey

1. Describe a time when you made a decision, how did you know to make that particular decision?
2. Describe a time when you worked toward a goal.
3. How do others know that you are listening?
4. Describe the type of worker you are.
5. Describe a time when someone made a decision different than yours.
6. You are working toward earning a degree and there is a family emergency which will take time away from your studies. How will you handle the situation?
7. You are responsible for evaluating others on their performance. You have to address a negative situation; how do you provide feedback to that individual?
8. What is Grit?
9. Two of your co-workers are having a verbal argument in your office. They are fighting over who is responsible for the work-load your superior assigned to all three of you. How do you handle the situation?
10. You are assigned to facilitate a group of diverse employees, working on a shared goal. This group includes individuals from different departments and with various talent. How would you unite the group?
11. What is Emotional Intelligence?
12. Describe a leader.
13. Describe a time when you were engaged. Why were you engaged? What were you experiencing?
14. Describe a time when you faced change and your response to that change.

Yes, I would like to be included in the random drawing. Below is my email address:

Appendix B

Coding Examples

For the purpose of this study the researcher created the following method to code the qualitative data:

EdDs represents EdD student and will be identified as
EdDs1, EdDs2, EdDs3...EdDs20

EdSs represents EdS student and will be identified as
EdSs1, EdSs2, EdSs3...EdS20

EdDg represents EdD graduate and will be identified as
EdDg1, EdDg2, EdDg3...EdDg20

EdSg represents EdS graduates and will be identified as
EdSg1, EdSg2, EdSg3...EdSg20

Appendix C

Sample email to EdD/EdS instructors (summer 2016) requesting permission to present research to potential participants

Date

Dear Faculty,

I am writing to request permission to present my research to potential participants from your fall 2016 EdD/EdS courses for my study at the studied university. I am currently enrolled in the doctoral program at the studied university and am in the process of writing my dissertation, as supported by my Chair. The study is titled: A mixed methods study on emotional intelligence and grit in doctoral and specialist students in a private four-year university. The participants include students enrolled in the Educational Leadership programs fall 2016 semester for both the doctoral and specialist degrees and graduates between 2010-2016. All participants will be given information with instructions to participate in two assessments; the 12 Item Grit Scale, and the Emotional and Social Competency Inventory (ESCI) as well as a survey, all accessible via a web link. An explanation of the study should take approximately 5 minutes with an additional 5 minutes to hand out instructions for potential participants. I have included a copy of my prospectus and I can be reached to set up date and time to visit your classes.

Regards,

Emilee Schnefke

Appendix D

Sample email to EdD/EdS students inviting participation in study

Valid for EdD/EdS student

Date

Dear Educational Leadership Doctoral Student
Dear Educational Leadership Specialist Student

I am inviting you to participate in my study titled: A mixed methods study on emotional intelligence and grit in doctoral and specialist students in a private four-year university. I am currently enrolled in the doctoral program at the researched university and conducting my research, as supported by my Chair. The participants include students enrolled in the Educational Leadership programs spring 2017 semester for both the doctoral and specialist degrees and graduates between 2010-2016. You will be emailed two links to complete the following assessments and survey; Emotional and Social Competency Inventory-University (ESCI-U) (30 minutes), 12 Item Grit Scale, and a 14 question survey (20 minutes), all accessible via a web link. **Your completion of the assessments serves as your consent to participate in the study, which you may stop at any time.** It should be noted that your confidentiality will be secured by the researcher. All responses on the 12-item grit scale and the survey remain anonymous with no identifying information requested. Your responses on the ESCI-U are sent directly to the test manufacture also anonymous. Each participant who provides their email address will be entered in a drawing for a \$100 Amazon gift card, which will be randomly selected by my Chair. The winner of the gift card will be notified via email and the recipient will be unknown by the researcher. Thank you for taking time to participate in my research, should you want a copy of the results of this study you may email me.

Best,

Emilee Schnefke
Doctoral Student

Appendix E

Sample email to EdD/EdS students inviting participation in study

Valid for EdD/EdS graduates

Dear Educational Leadership Doctoral Graduate
Dear Educational Leadership Specialist Graduate

I am inviting you to participate in my study titled: A mixed methods study on emotional intelligence and grit in doctoral and specialist students in a private four-year university. I am currently enrolled in the doctoral program at the researched university and conducting my research, as supported by my Chair. The participants include students enrolled in the Educational Leadership programs fall 2016 semester for both the doctoral and specialist degrees and graduates between 2010-2016. Below you will find two links to complete the following assessments and survey; Emotional and Social Competency Inventory-University (ESCI-U) (30 minutes), 12 Item Grit Scale, and a 14 question survey (20 minutes), all accessible via a web link. Your completion of the assessments serves as your consent to participate in the study, which you may stop at any time. It should be noted that your confidentiality will be secured by the researcher. All responses on the 12-item grit scale and the survey remain anonymous with no identifying information requested. Your responses on the ESCI-U are sent directly to the test manufacture also anonymous. Each participant who provides their email address will be entered in a drawing for a \$100 Amazon gift card, which will be randomly selected by my Chair. The winner of the gift card will be notified via email and the recipient will be unknown by the researcher. Thank you for taking time to participate in my research, should you want a copy of the results of this study you may email me.

Best,

Emilee Schnefke

Appendix F

Sample letter to EdD/EdS students inviting participation in study

Valid for EdD/EdS student

Date

Dear Educational Leadership Doctoral Student
Dear Educational Leadership Specialist Student

I am inviting you to participate in my study titled: A mixed methods study on emotional intelligence and grit in doctoral and specialist students in a private four-year university. I am currently enrolled in the doctoral program at Researched university and conducting my research, as supported by my Chair. The participants include students enrolled in the Educational Leadership programs fall 2016 semester for both the doctoral and specialist degrees and graduates between 2010-2016. Below you will find two links to complete the following assessments and survey; Emotional and Social Competency Inventory-University (ESCI-U) (30 minutes), 12 Item Grit Scale, and a 14 question survey (20 minutes), all accessible via a web link. Your completion of the assessments serves as your consent to participate in the study, which you may stop at any time. It should be noted that your confidentiality will be secured by the researcher. All responses on the 12-item grit scale and the survey remain anonymous with no identifying information requested. Your responses on the ESCI-U are sent directly to the test manufacture also anonymous. Each participant will be entered in a drawing for a \$100 Amazon gift card, which will be randomly selected by my Chair. The winner of the gift card will be notified via email and the recipient will be unknown by the researcher. Thank you for taking time to participate in my research, should you want a copy of the results of this study you may email me.

Best,

Emilee Schnefke

Appendix G

Sample letter to EdD/EdS graduate inviting participation in study

Valid for EdD/EdS graduate

Date

Dear Educational Leadership Doctoral Graduate
Dear Educational Leadership Specialist Graduate

I am inviting you to participate in my study titled: A mixed methods study on emotional intelligence and grit in doctoral and specialist students in a private four-year university. I am currently enrolled in the doctoral program at Researched university and conducting my research, as supported by my Chair. The participants include students enrolled in the Educational Leadership programs fall 2016 semester for both the doctoral and specialist degrees and graduates between 2010-2016. Below you will find two links to complete the following assessments and survey; Emotional and Social Competency Inventory-University (ESCI-U) (30 minutes), 12 Item Grit Scale, and a 14 question survey (20 minutes), all accessible via a web link. Your completion of the assessments serves as your consent to participate in the study, which you may stop at any time. It should be noted that your confidentiality will be secured by the researcher. All responses on the 12-item grit scale and the survey remain anonymous with no identifying information requested. Your responses on the ESCI-U are sent directly to the test manufacture also anonymous. Each participant will be entered in a drawing for a \$100 Amazon gift card, which will be randomly selected by my Chair.. The winner of the gift card will be notified via email and the recipient will be unknown by the researcher. Thank you for taking time to participate in my research, should you want a copy of the results of this study you may email me.

Best,

Emilee Schnefke

Appendix H

Approval and Application for ESCI-U assessment



Emilee Schnefke
Doctoral Student
3/13/2016

Dear Emilee,

Thank you for your interest in using the Emotional and Social Competency Inventory (ESCI) assessment for your research study. Your research proposal has been reviewed and accepted. We hereby grant you permission to use the instrument for use within this research project.

We look forward to hearing about your results. When you have completed your study please email or send a hard copy of your research paper or publication to the following address:

Research Contact
(ESCI.Research@haygroup.com) Hay Group, Inc.
399 Boylston Street
Suite 400, 4th Floor
Boston, MA 02116

Please let me know if you have any questions.

Best Regards,

A handwritten signature in black ink, appearing to read "Paula Kerr", is positioned above the typed name and contact information.

Paula Kerr
Research Committee
Hay Group
121 King Street West, Suite 700
Toronto, Ontario
416-815-6398
Paula.Kerr@haygroup.com



ESCI Conditional Use Agreement

For good and valuable consideration, the receipt and legal sufficiency of which are hereby acknowledged, I hereby agree that the permission granted to me by Hay Group, Inc., to receive and utilize, without charge, the Emotional and Social Competency Inventory (ESCI) is subject to the following conditions, all of which I hereby accept and acknowledge:

1. I will utilize the ESCI for research purposes only and not for commercial gain.
2. The ESCI and all derivatives thereof is and shall remain the exclusive property of Hay Group; Hay Group shall own all right, title, and interest, including, without limitation, the copyright, in and to the ESCI.
3. I will not modify or create works derivative of the ESCI or permit others to do so. Furthermore, I understand that I am not permitted to reproduce the ESCI for inclusion in my thesis/research publication.
4. I will provide Hay Group with a copy of any research findings arising out of my use of the ESCI and will Hay Group in any of my publications relating thereto. Hay Group may disseminate this research and report any results relating to the ESCI.
5. I will not provide individual feedback to participants.
6. Hay Group will not be deemed to have many any representation or warranty, express or implied, in connection with the ESCI, including, but not limited to, the implied warranties or merchantability and fitness for a particular purpose.
7. My rights under this Agreement are non-transferable and non-exclusive and will be limited to a period of two (2) years from the date of this Agreement.
8. Hay Group may immediately terminate this Agreement by giving written notice to me in the event that I breach any of this Agreement's terms or conditions.
9. This Agreement will be construed in accordance with the laws of Massachusetts without recourse to its conflict of laws principles.
10. This Agreement may not be assigned by me without the prior written consent of Hay Group.
11. Failure by Hay Group to enforce any provisions of this Agreement will not be deemed a waiver of such provision or any subsequent violation of the Agreement by me.



12. This is the entire agreement with Hay Group pertaining to my receipt and use of the ESCI, and only a written amendment signed by an authorized representative of Hay Group can modify this agreement.

Emilee Schnefke Emilee S. Schnefke 3-6-16
Signature Print Name Date

Appendix I

12-Item Grit Scale and Permission for use

12- Item Grit Scale

Directions for taking the Grit Scale: Here are a number of statements that may or may not apply to you. For the most accurate score, when responding, think of how you compare to most people -- not just the people you know well, but most people in the world. There are no right or wrong answers, so just answer honestly!

I can best be described as: (please check one)

EdD graduate _____

EdS graduate _____

EdD student _____

EdS student _____

1. I have overcome setbacks to conquer an important challenge.

Very much like me Mostly like me Somewhat like me Not much like me
Not like me at all

2. 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

3. My interests change from year to year.*

Very much like me Mostly like me Somewhat like me Not much like me
Not like me at all

4. Setbacks don't discourage me.

Very much like me Mostly like me Somewhat like me Not much like me
Not like me at all

5. 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

6. I am a hard worker.

Very much like me Mostly like me Somewhat like me Not much like me
Not like me at all

7. 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

8. 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

9. I finish whatever I begin.

Very much like me Mostly like me Somewhat like me Not much like me
Not like me at all

10. I have achieved a goal that took years of work.

Very much like me Mostly like me Somewhat like me Not much like me
Not like me at all

11. I become interested in new pursuits every few months.*

Very much like me Mostly like me Somewhat like me Not much like me
Not like me at all

12. 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 1, 4, 6, 9, 10 and 12 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 2, 3, 5, 7, 8 and 11 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 12. The maximum score on this scale is 5 (extremely gritty), and the lowest score on this scale is 1 (not at all gritty).

Duckworth, A.L., Peterson, C., Matthews, M.D., & Kelly, D.R. (2007). Grit: Perseverance and passion for long-term goals. *Journal of Personality and Social Psychology*, 9, 1087-1101.

My name is Emilee Schnefke and I am an EdD student working with my chair on my prospectus. I am conducting a mixed methods study measuring emotional intelligence and grit in EdD/EdS students and graduates at a private four year institution located in the Midwest. I am contacting the Duckworth Lab to gain approval to use the 12-Item Grit Scale for my study. Could you please provide me with instructions for achieving this goal, if there is any further information that you need please email or call at [618-975-0989](tel:618-975-0989).

Thank you,
Duckworth Lab

Feb 26 (9 days ago)

Hi Emilee,

Thank you for your email regarding the use of Grit Scale. This scale is copyrighted by Dr. Duckworth and co-authors. As detailed here, <https://sites.sas.upenn.edu/duckworth/pages/research>, the scale can only be used for educational or research purposes. The scale cannot be used for any commercial purpose, nor can it be reproduced in any publication. You are free to use it in your research as long as you follow these guidelines.

Best, Duckworth Lab

Appendix J

Letter to present in classes summer 2016

**Researched University School of Education
Department of Educational Leadership
EdD Dissertation**

**PARTICIPANTS NEEDED FOR
RESEARCH IN
EMOTIONAL INTELLIGENCE AND GRIT**

I am looking for volunteers to take part in
A mixed methods study on emotional intelligence and grit in doctoral and
specialist students in a private four-year university

As a participant in this study, you would be asked to:
**Complete an anonymous online assessment measuring Emotional Intelligence (EI)
and grit and complete a survey on EI and grit.**

Your participation would involve accessing two links provided via email or
entered in your web browser (see below); approximately 30 minutes for the
EI assessment and 20 minutes for the Grit and survey questions.

In appreciation for your time, you will be entered to win
A \$100 Amazon gift card which will be selected at random by Chair.

For more information about this study, or to volunteer for this study,
please contact:
Emilee S. Schnefke
at
Email:

**The study has been reviewed and approved by the
Institutional Review Board, Researched University.**

Appendix K

Interview Questions

Demographic Questions

1. When did you begin the program?
2. Did you have transfer credits?
3. When is your expected graduation? (is this on track for what you wanted)
4. Why did you pursue an EdS? Why not an EdD? OR
What was the deciding factor to obtain the EdD degree?
5. Describe any characteristics in your personality that are helpful for working toward your degree.
6. Describe a time when someone put a lot of stress on you. How did you react?
7. What do you do stay mentally focused with your school work?
8. Describe a time someone at work or school had a bad day. What did you do to help the situation?

Vitae**Emilee S. Schnefke**

I have been in the educational field for approximately 10 years. Prior to my current position at Stevens-The Institute of Business & Arts (Siba), as Academic Dean & Registrar, I taught business and general study classes. Before that I was a shift supervisor for the Madison County Juvenile Detention Center in Edwardsville, IL.

I attended Southern Illinois University-Edwardsville, where I earned a bachelor's degree in psychology and special education, behavioral disorders. Later in life I returned to school earning a master's in human resource management. When at Siba I became interested in higher education administration and disconnected from the classroom. Consequently, I continued my education to gain knowledge in the field of instructional leadership.