2021

Motivation to Persevere Among Nontraditional Black Online College Students

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Walden University
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Abstract

Motivation to Persevere Among Nontraditional Black Online College Students

by

Alice Ginwright Sapp

MS, Florida A&M University, 1978

BS, Tennessee State University, 1968

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Psychology

Walden University

August 2021

Abstract

There is limited research on grit among nontraditional online adult learners, especially

focusing on male and female Black college students who are adult online learners,

including those who are older than 40. The purpose of this quantitative quasi-

experimental study was to examine possible between-group differences in motivation to

persevere, as defined by grit, among nontraditional-age Black online college students.

The theoretical framework for this study was life-span development theory and the grit

motivational factor model. A sample of 138 Black male and female online,

nontraditional-age college students completed an online survey. Demographic

information was collected, and scores from the Short Grit-S Survey operationalized

perseverance needed to accomplish long-term goals in the face of challenges and

obstacles. A 2 by 2 factorial ANOVA analysis was used to test the research hypotheses.

The results of the study indicated that male and younger students scored significantly

higher than the comparison groups on the Grit-S Scale, but there was no significant

interaction. Though these results are not consistent with observed gender differences in

retention among Black college students, they suggest that other factors play more

influential roles among online learners. These findings may inform positive social change

for colleges and universities regarding needs for individualized support of their Black

online students, including those related to motivational differences between male and

female students and between traditional- and nontraditional-age cohorts.

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ACKNOWLEDGEMENTS

I started this voyage with my friend and fellow teacher Jennifer Lind McCray at a private school. She convinced me to go to Walden to get my PhD. I would like to personally thank her for her insistence of me enrolling in Walden. We studied together and leaned on one another when times get tough. Jennifer became ill and was forced to withdraw for a while. I am genuinely happy that she is back is school now. I honestly believe in the verse, "The grace of our Lord Jesus Christ be with you all. Amen". Philippians 4:23. In other words God's help & strength will be with all of us in any task we decide to accomplish.

I would like to thank my family and friends for putting up with me doing assignments and posts while we were on vacation. My computer went with me everywhere I went. I would like to thank my sisters, Sylvia, Anna & Billie, and my beloved big brother Jr. for believing and pushing me on. I would like to thank the owner of the private school where I am principal, Striving for Excellence, Mildred Ivey the owner, the co-owner, Petronia Ivey, her sister Dana, the school administrator, Vonn Buggs, and all the employees. Thank you to my friends Vera Harris, Juanita Simmons Toni Harper, and all my friends I fail to mention. Thank you to my Minister, Elder Ricardo Daphnis & first lady and all the members of my church. Thank you for your kind words and support. You know all to well the struggles I have gone through with illnesses while writing this dissertation.

My heartfelt thanks go to Dr. Donna Heretick, my first chairperson who is wonderful, witty and a thoughtful mentee, Dr. Christopher Bass, my second very understanding chairman and Dr. Amy Sickel who had the gift of wisdom to put me in Dr. Heretick.'s

dissertation group. I thank Dr. Sickel from the bottom of my heart. She is always there when I need her.

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Chapter 1: Introduction to the Study

College retention is when a student persists until they are awarded a degree.

Colleges and universities encourage student retention, as it is beneficial to the student, the

institution, and society in general (Amnie, 2018; Anumba, 2015; Chapman et al., 2018;

Farman et al., 2016; Feature, 2019). Yet many obstacles present themselves to students in

completing their degree programs, including financial, psychological, and practical

hurdles (Anumba, 2015; Bowles & Brindle, 2017; Lancaster & Xu, 2017). Based on a

cohort of students in 2009, there was a 2.1% lower completion rate (52.9%) than the

previous year's cohort (Shapiro et al., 2015). Such decline in completion rate is more

evident in some specific groups, such as Black students (Chapman et al., 2018; Feature,

2019). Failure to retain students to degree completion is a waste of resources and a social

problem (Bowles & Brindle, 2017; Hall, 2016).

Though online course enrollment in higher education has grown in recent years

(Allen et al., 2016), so have the dropout rates, which are higher for students taking online

courses compared to face-to-face courses (Allen et al., 2016; Romero & Usart, 2014; Xu

& Jaggars, 2014). There is an interest to improve online learning outcomes by many

colleges and universities so that all students can succeed in online courses (Farman et al.,

2016; Ishitani, 2016; Swan, & Daston, 2016). For instance, the U.S. Department of

Education reported that many African Americans are more likely than any other

population group to take their undergraduate program online (Ahapman et al., 2018;

Anumba, 2015; Hall, 2017; U.S. Census Bureau, 2015). However, African American

online learners are at greater risk than some other groups due to increased poverty,

inferior academic preparation, inadequate reading skills, not having access to computers at home, and limited access to current technologies including the Internet (Hall, 2017; Hostinar et al., 2017). Thus, persistence of completing a college degree in the face of these odds is a critical factor for academic success among African American online learners (Kahn, 2017).

This chapter outlines discussion about the background of the problem, problem statement, and purpose study. In addition, the research questions (RQs) and hypotheses and theoretical framework that will guide this study are discussed. The nature of the study, definitions, assumptions, scope and delimitations, and limitations are also presented. A summary of the important details about the study will conclude the chapter.

Background

Overall, low retention rates among college students are a significant social problem within the United States (Anumba, 2015; Features, 2019). Further, the retention/degree completion rate for Black college students is only 43%, as compared with 63% for White students, and retention rates are lower among Black male college students at 36% in relation to Black female college students at 47% (Ezeala-Harrison & Ahuja, 2018; Salvo et al., 2017). There are many academic challenges in the retention of African American students in higher education, but one of the barriers that hinder the retention of many African American students is financial support. Many African American students rely on financial aid provided through Pell Grant, personal and family income, and savings, which only provide limited financial support needed for attend college and help with their retention (Ezeala-Harrison & Ahuja, 2018). Other factors

affecting retention include institutionalized racism that may create stigma, which may lower the self-esteem and affect the academic performance of students (Bowles & Brindle, 2017; Brooms, 2018; Dapremont, 2014; Ferman et al., 2016). There is a need for policy makers, parents, and administrators to help retain these students so they can graduate from college (Bothe & Coetzee, 2016; Ezeala-Harrison & Ahuja, 2018), which requires the identification of why students such as Black college students drop out.

Many initiatives have been developed to support traditional-age minority student retention (Seidman, 2019) among African American males (Connor, 2015; Hagedorn et al., 2019; Ishitani, 2016; Medley, 2017) and African American females (Schwartz & Washington, 2019) in historically Black colleges and universities (HBCUs; Ezeala-Harrison & Ahuja, 2018) as well as in predominantly White institutions (e.g., Holmes et al., 2019). In general, mentoring (Chapman et al., 2018; Hall, 2017) and an intensified support system are keys to success in retention efforts (Kahn, 2017). In addition to college preparedness, social connections and relationships, and growth through student organizational commitment, high aspirations and goals are predictive of successful completion (Kahn, 2017). Similarly, supportive social networks, cultural identify, and self-beliefs have been described by a sample of Black males who achieved advanced degrees as factors behind success (Scott & Sharp, 2019).

Less is known about specific characteristics and needs of older, nontraditional-age college students, especially among Black students. But older students, 50 years or older, comprise one of the fastest growing groups of online learners (Botha & Coetzee, 2016; Features, 2019; Ferman et al., 2016). Further, the African American enrollment at all-

online institutions is higher (Data USA, 2020). For example, Walden University has 36.6% Black or African American students, both graduate and undergraduate. The enrolled student population at University of Phoenix-Arizona is 28.9% White and 21% Black or African American (Data USA, 2020). African American males and females who enroll in online courses while in college are usually older students due to their easy access to technology, though more female students are enrolled (20%) than male students (4.5%; Salvo et al., 2019).

There is some indication that older adult learners are more intrinsically motivated than younger adult learners (Anumba, 2015; Botha & Coetzee, 2016; Kahn, 2017); however, no one has studied motivation among older African American adult learners. One type of motivational factor is grit, which entails resolution, fortitude, resilience, perseverance, tenacity, and stamina. The grit concept is related to personal intrinsic motivation in a continuous effort for pursuing a path from the adversities along the way. Grit is a noncognitive individual incentive reflected in the mental capacity and stamina in the pursuit of long-term objectives (Aparicio et al., 2017; Bazelais et al., 2016; Bowman et al., 2015). College students with higher levels of grit demonstrate higher academic performance and persistence, with lower attrition than those with lower levels of grit (Aparico et al., 2016; Bazelais et al., 2016). However, these studies have primarily observed traditional-age students who are in on-campus programs (Cochran et al., 2014). No studies to date have examined grit specifically among African American online students who are adult learners aged 27 or older (Botha & Coetzee, 2016; Johnson, 2015), which this study addressed.

Problem Statement

The growing population of nontraditional-age, Black online college students has received limited attention with respect to factors that may influence their retention. For example, little is known about possible differences in motivation to persevere among male and female, younger and older nontraditional online undergraduate students in general, and even less among Black nontraditional students (Botha & Coetzee, 2016; Features, 2019). Thus, I conducted this study to examine these possible differences between Black online college students based on gender and age.

Purpose of the Study

The purpose of this quantitative quasi-experimental study was to examine possible between-group differences in motivation to persevere, as defined by grit, among Black online college students based on gender and age. Understanding possible differences based on age and gender in the motivational factor of grit among Black adult online learners may help educators to tailor educational approaches to advising, mentoring, and course expectations for these diverse online learners to support their performance and persistence in their degree-seeking efforts.

Research Questions

Based on the study's problem and purpose, the following RQs were posed:

RQ 1: Among Black nontraditional-age online undergraduates, do male and female students differ on the motivational trait of grit, including subfactors of persistence of effort and consistency of interest (as measured by Grit-S Scale)?

RQ 2: Among Black online undergraduates, do younger and older nontraditional-age students differ on the motivational trait of grit, including subfactors of persistence of effort and consistency of interest (as measured by Grit-S Scale)?

RQ 3: Is there an interaction between age and gender among Black nontraditionally aged undergraduate online learners on the motivational trait of grit, including subfactors of persistence of effort and consistency of interest (as measured by Grit-S Scale)?

Theoretical Framework for the Study

The theoretical framework for this study was life-span development theory (Baltes, 1997) and Duckworth and Quinn's (2007) model for the motivational factor grit. Life-span development theory provides a framework for understanding humans in terms of aging and context for the regular transformations that occur (Baltes, 1997), which helps to observe patterns and development in people's lives (Baltes & Baltes, 1990). Research on life-span development theory focuses on interindividual differences, interindividual similarities, and intraindividual flexibility in development in a person life. A person's development across the life span is characterized as (a) multidirectional, (b) continuous and discontinuous processes, (c) with gains and losses, and (d) plasticity (Baltes & Baltes, 1990). These elements in an individual's life are better understood through contextualism, historical embeddedness, and multidisciplinary research (Baltes & Baltes, 1990).

Duckworth and Quinn (2007, 2009) defined grit as a personality trait related to perseverance and passion for long-term goals. They noted that individuals high in grit

were able to maintain their determination and motivation over long periods of time despite experiences with failure and adversity. Duckworth and Quinn concluded that grit is a better predictor of success than a person's intellectual talent. They based this concept on the evaluation of educational attainment by the adults, the grade point average among Ivy League undergraduates, dropout rate of cadets at West Point U. S. Military Academy and ranking in the National Spelling Bee (Duckworth & Quinn, 2007, 2009; Duckworth et al., 2007). For example, I used the life-span theory and the theory of grit to examine the motivation of Black online college students because of interindividual differences, interindividual similarities, and intraindividual flexibility in development in a person life

Nature of the Study

This was a quantitative, quasi-experimental study between-group survey research design. Quantitative methods are appropriate when the researcher wishes to examine identified hypotheses objectively with the use of statistical analysis on numerical variables measured through quantitative, validated surveys (Allwood, 2012; Mustafa, 2011). In addition, researchers use a quantitative 2 x 2 factorial research design if the objective of the study is to determine between-group differences and possible interactions between independent variables in relationship to the dependent (Curtis et al., 2016; Goertz & Mahoney, 2012; Goodwin & Goodwin, 2013; Leedy & Ormrod, 2010). Thus, I chose this design to examine between-group differences in grit among Black online nontraditional-age undergraduate students who differ in age (27 to 49, 50 or older) and gender (males, females). The dependent variable, grit, was measured numerically using a validated survey instrument.

The target population for the study included Black male and female nontraditional-age undergraduate students who are taking most of their courses online at colleges and universities across the United States. Colleges and universities across the United States offer hundreds of online courses to its students in various subjects to obtain college credit. Another criterion for these students were online students who can understand and communicate through English and the internet. I recruited participants through various Facebook and other social media groups of non-traditional undergraduate Black students. As appropriate, I obtained permission from the administrator of the online groups to post recruitment information about the study for the potential participants.

Definitions

The following are the definitions of important terminologies used in this study:

Emotional factors: Emotional factors are any processes characterized by intense mental activity and a certain degree of pleasure or displeasure such as mood, temperament, personality, and disposition (Hanin & Van Nieuwenhoven, 2016).

Grit: A personality trait on which individuals differ. Grit is related both to persistency of effort and consistency of interest. Grit is a predictor of success in life as associated with perseverance, resilience, ambition, and the need for achievement (Duckworth et al., 2007).

Online education: Online education is a flexible instructional delivery system that encompasses any kind of learning that takes place via the internet (Romero & Usart, 2014).

Practical factors: Practical factors are the demographical, social, and personal factors that either help or prevent an individual in accomplishing a required task or goal (Koivupuro et al., 2012).

Psychological factors: Psychological factors are the mental processes that either aid or inhibit an individual from being in the right "frame of mind" to perform well in a given task or activity (Marques et al., 2012). In general, psychological factors can be categorized into motivation, attitude and beliefs, learning, and perception (Aronson, 2002).

Retention rate: Retention rate refers to the percentage of a college/university's first-time, first-year undergraduate students who continue at that school the next year (Bowles & Brindle, 2017).

Assumptions

I made two assumptions regarding this research. First, I assumed that all participants would provide honest responses. To assist respondents in providing honest answers respondents received information about the study's strict adherence to anonymity and confidentiality. Additionally, the informed consent form explained that participation in the study is voluntary and that any participant can opt-out of the survey or discontinue the survey once they have started. Second, I assumed that the survey participants would answer all survey questions to the best of their ability. There was no physical contact between me and the participant during the data collection phase, so I could not influence the participant during the time when the participant is completing the

survey. Clear instructions were provided to lessen the probability of confusion and misunderstanding of each question.

Scope and Delimitations

The scope and delimitations for this study were Black undergraduate students who are enrolled in online classes and are 27 years old or older. I studied only Black students for this study because there are gaps in the scholarly literature regarding factors related to the specific problem of lower retention for this population. I also selected male and female nontraditional-age students because there is insufficient information about the motivations of this age group that may affect retention.

Limitations

I did not use random sampling. Thus, there were limitations of generalization of findings to other Black, nontraditional-age undergraduate college students in online courses. Additionally, though online surveys are known to allow for broader accessibility and lower costs, the recruitment information only reached those who are active on social media sites or participate in the Walden participant pool. Limited funding kept me from also using other recruiting services that charge for use of their participant pools. Further, as participants were volunteers, they may not be representative of students who do not volunteer or do not have computer accessibility. In addition, those who do or do not face barriers to retention may be more inclined to participate, skewing the data in a particular direction.

Significance

This study can contribute to a better understanding of a possible motivational factor that may differ among male and female, younger and older nontraditional-aged Black online students. Perhaps this kind of motivational factor helps explain why almost two thirds of Black male college students fail to finish their degrees. It would be beneficial to society if the rate of retention for such students could be at least raised to the national average, so that Black college graduates could be proportionately represented in the workforce and society in general. Awareness of possible differences in the motivational factor of grit may guide colleges and universities' activities for individualized support of their Black online students, including special differences between younger and older nontraditional-age cohorts. Institutional authorities could use the identified factors that may affect retention to aid them in developing and implementing counseling and retention efforts. An increase in the number of college graduates would benefit society as a whole; in particular; an increase in the number of Black college graduates would help to address social inequities that persist in American society.

Summary

This study addressed low retention rates among Black online college students, especially among males, nontraditional-aged students, who are becoming a larger proportion of students who take online classes. As such, the purpose of this quantitative study is to examine possible differences between male and female Black online undergraduate students regarding grit, which has been found to predict retention and

academic performance. Understanding possible differences based on age and gender in the motivational factor of grit among Black adult online learners may help support these learners in their performance and persistence in their degree-seeking efforts.

      Chapter 2 presents a synthesis of related literature about online education of non-traditional Black students taking online classes and education in the United States, retention rates, and factors affecting completion of students. Chapter 3 presents the details of the methodology. Chapter 4 presents the results of the survey. Lastly, Chapter 5 presents the discussion of the results and recommendations for future research.

Chapter 2: Literature Review

Online course enrollment in higher education has grown in recent years (Allen et al., 2016), but so have the dropout rates (Allen et al., 2016; Romero & Usart, 2014; Xu & Jaggars, 2014). Because many African Americans are more likely than any other population group to take their undergraduate program online (Collins, 2014; Institute for Higher Educational Policy, 2010; U.S. Census Bureau, 2015), it is important to address common barriers they face such as poverty, academic preparation, reading skills, not having access to computers at home, and limited access to current technologies including the internet (Parker, 2016; Tucker, 2014). Thus, persistence in the face of these odds is a critical factor for academic success among African American online learners.

In addition, there are dynamic changes in the age demographics of online learners. Older students, 50 years or older, comprise one of the fastest growing groups of online learners (Botha & Coetzee, 2016; Johnson, 2015). There is some indication that older adult learners are more intrinsically motivated than younger adult learners (Bennett et al., 2007; Botha & Coetzee, 2016). However, studies have not addressed motivation among older African American adult learners, especially related to grit. College students with higher levels of grit demonstrate higher academic performance and persistence (Aparico et al., 2016; Bazelais et al., 2016), but research has not shown this predictor among nontraditional-age students or compared the differences based on age or gender despite attrition being higher for Black male online students (Hanin & Van Nieuwenhoven, 2016).

The literature review discusses further related theory and lines of research to clarify the RQs and methods proposed for this study. This chapter is organized to present the literature review strategies, the theoretical foundation, a background on retention of African American in college and in online classes, characteristics of online learners, gender gaps in online education, Black males in online learning classes, Black females in online learning classes, online learners over 50, and younger online learners, overview of the grit concept. Finally, there is a summary of Chapter 2 and the transition to Chapter 3.

Literature Search Strategies

The literature review was compiled from several databases within the library of Walden University online databases and search engines: Google Scholar, Ingenta Connect, JSTOR: Journal Storage, ProQuest, Springer Link, and Sage Journals. The keywords used were *African American*, *black*, *male*, *female's college*, *retention*, *self-efficacy*, *psychological factors*, *online learning*, *e-learning*, *online education retention*, *computers emotional factors*, *grit*, *roles*, and *administrators*. Using these keywords, both individually and in combinations, relevant studies were generated from database searches. The results of the searches on the individual and combined keywords resulted into further keywords and phrases such as *stress*, *impact*, *grit factors*, *barriers*, *student success*, *undergraduate*, *higher education*, *academic success*, *achievement*, *graduation*, *persistence*, *motivation*, *completion*, *mentoring*, *retention program*, *predicting retention*, *support organizations*, *first year*, *second year*, *African American females freshman*, and *sophomore*, which were also used individually or in combination to explore related

literature. Those that were deemed relevant to the study were included in the literature review.

Theoretical Foundation

The theoretical framework for this study included life-span development theory (Baltes, 1997), which helps understand people's development as they age and go through life transitions (Baltes, 1997; Baltes & Baltes, 1990). People can go through changes that are multidirectional or continuous or discontinuous, as well as changes involving gain or loss or plasticity (Baltes & Baltes, 1990). An important element with life-span development theory is that development in a person's life varies depending on their historical and cultural environments, and development typically is conceptualized in terms of changes in the person's health, education, and employment opportunities (Baltes, 1987). Thus, there are several interindividual differences in life-span development because not everyone develops in the same way or responds to biological or elements in the environmental changes in the same way (Baltes & Baltes, 1990). For example, individuals differ in their experiences with, and interpretations of, gendered ageism (Baltes, 1997; Elder, 1998). Young women may be treated uniquely due to their status as both young adults and being a woman. Older men may be viewed uniquely due to their status in life as both men and older adults. The way individuals perceive or interpret how they are treated may vary based on historical context in which they grew up and the age and gender norms associated with their society and the cultural context in which they currently reside (Elder, 1998). From a life-span perspective, researchers tend to consider the potential as well as limits of intraindividual changes across the life span.

Due to a combination of influences, many developmental outcomes are possible for each person, but some outcomes are not possible. However, from a life-span orientation, the understanding of specific aspects of human ageing are understood in a larger context that encompasses the influences of biological and sociocultural factors across time and age (Baltes, 1997; Elder, 1998).

A second theoretical framework for this study is related to grit. Grit is a motivational construct based on the person's perseverance of their effort combined with their passion for certain long-term goals with the motivation to achieve the goal or objective (Bandura, 2012; Duckworth et al., 2007). This is done through the person's perseverance with overcoming challenges and obstacles and serves as a driving force in achieving their desired goals and objectives (Duckworth et al., 2007). These traits and concepts include perseverance, hardiness, resilience, ambition, and the need to achieve and conscientiousness. These traits within the individual can be conceptualized as the individual differences related to the accomplishment of work rather than talent or ability (Bandura, 1983; Duckworth et al., 2007). Individuals high in grit are able to maintain their determination and motivation, which can help predict success (Duckworth & Quinn, 2009).

Literature Review

Though African American students have performed significantly below other subgroups in all academic areas, there has been a positive trend in the educational obtainment of African American students (National Center for Education Statistics [NCES], 2012). The high school dropout rate decreased from 15% in 1995 to 9% in 2010,

and the rate of African American students ages 25 to 29 with a high school diploma increased from 78% in 1980 to 86% in 2011 as well as 8% to 20% for those who earned a bachelor's degree (Anumba, 2015). Additionally, the percentage of students who completed high school and enrolled in college after graduation increased from 41% in 1975 to 52% in 2011, and those who graduated with definite plans to graduate from a 4-year college increased from 30% in 1990 to 59% in 2011 (Anumba, 2015). However, college enrollment among African American males does not equal persistence and graduation from college (Anumba, 2015).

Despite African Americans' enrollment and their plans to graduate from college with a degree, only an average of 39% of African American students graduate with a bachelor's degree after 6 years compared (Anumba, 2015). Further, attrition is not equally distributed across races and gender but is concentrated among African American and Latino men (Anumba, 2015; Barners-Henry, 2015; Keels, 2013). Degree completion for Black males is 34% less than that for White students for 4-year institutions over a 6-year period (Features, 2019), and the completion rate among Black male students is not as high as it is among Black female students (Bowles & Brindle, 2017; Hall, 2017; Ishitani, 2016). In 2018, the rate for Black females increased to 46%, whereas that for Black males was 35% (Features, 2019; Shapiro et al., 2015). Black males face unique challenges in their educational careers on college campuses due to self-efficacy and motivation factors that often impact their presence and hinder their academic success (Baker, 2013; Brooms et al., 2015).

Attaining a college degree is an important element to solving poverty in the United States, especially for people of color (Bryant, 2015). With the rapid changes in the different employment industries globally, many companies require their job applicants to have attained a college degree (Bryant, 2015). These different companies perceive that a college degree is crucial to be able to meet the demands of the industry. However, at 35%, the retention/degree completion rate for Black college students is only close to one third of the entire Black college student population (Bryant, 2015). This low rate of retention has led to researchers noting that race is the main predictor of college success by degree attainment (Cochran et al., 2014). Different studies cited factors that affect the retention of Black students such as college preparedness, high aspirations and goals, social connections and relationships, and growth through student organizational commitment (Simmons, 2013).

Factors that Predict Retention Among Traditional-Aged, Campus-Based, Undergraduate, Black College Students

Emotional Factors

Emotional factors can be characterized by intense mental activity and a certain degree of pleasure or displeasure such as mood, temperament, personality, and disposition (Hanin & Van Nieuwenhoven, 2016). One of the main concepts associated with emotional health vulnerability is stress and how one copes with it (Hostinar et al., 2017). For instance, there is overwhelming stress that comes with college schooling (Conner, 2015; Medley, 2017). Research has indicated that there is a higher likelihood of dropping out of college for Black students who had higher stress levels, which is one of

the main characteristics of most Black college students due to other issues like poverty and lack of parental involvement or support (Khan, 2017). Researchers have also posited that one of the sources of this high level of stress is race-related aggressions against Black students (Greer & Baylor, 2015). Emotional factors that influence Black student retention in primarily White institutions (PWIs) are feelings of discomfort among White students and the effect on the group's overall experience due to these feelings of discomfort (Hunn, 2014). Analyzing data gathered from 201 Black students, Greer and Baylor (2015) argued that poor academic performance for Black students was evident where intragroup race-related stressors were present and not positively influenced by coping and adaptive strategies. Furthermore, the high-stress levels resulting from these stressors, combined with the maladaptive approach, increased the existence of and exposure to intragroup race-related aggressions. However, academic success was achieved if the students were able to moderate them by employing the appropriate coping and adaptive strategies (see also Bentley-Edwards & Chapman-Hilliard, 2015). If students are more aware of their stressors and handle them, they increase changes of academic success (Hunn, 2014). Racial cohesion can also help regulate stress from racial aggression in interactions with White students (Bentley-Edwards & Chapman-Hilliard, 2015).

Mentoring Support

Campus environment impacts how students remain in college (Johnson et al., 2014). Research has demonstrated positive relationships between persistence, overall feelings about campus, and retention among traditional-age Black students and other

students of color (Johnson et al., 2014). Positive student–faculty interactions, especially through direct involvement and advisory, is one of the factors that has a direct and substantial connection to students' retention (Langley, 2017; Saunder, 2016). School staff who focus merely on the academic experiences of students, without regard for their background, provide insufficient support (Luedke, 2017). But natural mentoring relationships for underrepresented college students affects their academic success in the institution, showing significant improvements in GPA (Hurd et al., 2016). To foster a sense of belonging for Black students, school institutions should create good student–faculty interactions and relationships, suitable counseling, and diversity and inclusion awareness (O'Keeffe, 2013). Further, there is association between Black students' involvement in campus activities and the probability of their retention and eventual graduation, so academic and student affairs administrators play a crucial role in paving the opportunities for increased student involvement in such campus activities (Council, 2015). However, little is known about these kinds of opportunities or benefits for nontraditional-age, Black online students (Bowles & Brindle, 2017; Hurd et al., 2016).

Practical Factors and Resilience

Practical factors are classified as the demographic, social, and personal factors that either help or prevent an individual in accomplishing a required task or goal (Koivupuro et al., 2012). These factors affecting Black students are closely linked together by factors relating to racial discrimination against these students (Brezinski, 2016; Hunn, 2014). Black students are known to commonly experience racial microaggressions in school, which leads to Black students wanting to drop out

(Brezinski, 2016). For example, Black students have to endure omission from relevant group tasks in ream-based learning (Hunn, 2014). To battle students' perceptions of isolation and microaggressions, institutions can promote supportive and welcoming environments where students can have the capacity to realize a sense of belonging within the institution (O'Keeffe, 2013).

Social involvement in college has also been deemed as important for retention (Grier-Reed & Wilson, 2016). Students who started their first college year with close friends were highly likely to be retained (Myrick et al., 2016). Further, students' social confidence and eagerness to be socially involved in academic and non-academic organizations are also factors for thriving in college institutions (Myrick et al., 2016). Specifically, students who participated in Black student networks had higher potential to be retained until graduation (Grier-Reed & Wilson, 2016). However, persistence and retention among second-year students may still be affected despite social involvement (Ishitani, 2016), which may require a focus on how the institutions continue to support the needs of the students (Hall, 2017). For example, Black nursing students were retained through basic actions such as (a) having a daily study plan, (b) involvement in racially diverse study groups, (c) understanding of the course content, and (d) usage of note cards, were the main factors that helped these students succeed in their field (Dapremont, 2014).

Another facet that can be influenced by college authorities for student retention is the creation of campus organizations that can promote positive multiracial interactions (Bentley-Edwards & Chapman-Hilliard, 2015). School administrators can influence the interracial interactions through organization of relationship building activities within the

campus. For example, data from 3,670 student participants who indicated intention to major in a STEM field at 217 different institutions suggested that Black and Latino students were considerably less likely to persist, which was influenced by their background and college experiences (Chang et al., 2014). However, the more students involved themselves in strategic academic experiences, such as frequent group studies, involvement in undergraduate research work, and participation in academic organizations, the more likely that they will complete their studies (Chang et al., 2014). On the other hand, the lack of influence by college authorities is an impediment to student retention such as weak and formal relationships with faculty, large class size with infrequent offerings, and frustration with academic advising (Lancaster & Xu, 2017).

Knowing that positive administrative support is crucial to Black retention is only half the solution (Baker, 2013; Braxton et al., 2013; Brooks et al., 2013). It is also important to understand the varying kinds of personal support needed by the students (Baker, 2013). This may be further specified by the students' race and gender (Lancaster & Xu, 2017). Research has shown a need to establish networks of support systems yield social and cultural capital that are critical to the college persistence of African American males (Anumba, 2015). In addition, to the support of family members, support from peers, teachers, and members of the college community are instrumental in enabling these students to successfully navigate through college.

Similar to Baker (2013), results of the Anumba (2015) study indicated that supportive teachers and professors played a significant role in the educational outcomes of African American males. Also, it is critical for institutions to target this population for

financial support by enabling equitable access to resources. Finally, the results indicated that institutional administrators should take the impact of ethnic cultural into consideration as they make policies and implement practices that impact African American student's wellbeing.

Factors that Predict Retention Among Online, Undergraduate, Black College Students

While the start of distance learning can be traced back over 100 years ago, distance learning advanced with the arrival of internet technology, the digitization of information, and the prevalence of personally owned electronic devices that could access the internet (Collins, 2014). Purveyors and consumers of online education use the internet, web-based platforms, and personal electronic devices such as the computer to deliver and receive instructional materials around the globe (Chen, 2001; Collins, 2014).

As early as 2014, researchers reported that African Americans are more likely than any other college aged group to take most of their undergraduate program online (Moore, 2014; Shea & Bidjerano, 2014). Similar to White students, African American students who enroll in online courses do so mainly for the convenience offered through new applications of technology at many colleges and universities (Brooms, 2018; Glenn-Jones & Davenport, 2018; Hart et al., 2017; Salvo et al., 2019). African American students reported fewer microaggressions in online courses, which indicated that the environment of online courses is experienced as being culture neutral (Collins, 2014; Moore, 2014; Salvo et al., 2019; Tucker, 2014).

However, as with on-campus, face-to-face learning, African American students taking online courses tend to have lower grade point averages than their White counterparts. In addition, African American students report lower perceived learning gains, fewer posting behaviors, less sense of learning communities, and lower satisfaction scores (Chang et al., 2014; Ke & Kwak, 2013; Moore, 2014; Salvo et al., 2019; Shea & Bidjerano, 2014). Thus, there are factors that need to be understood to explain and offer remediation for these patterns of performance and experiences among African American college students.

Older Learners and Online Education

Previous reports have noted the diversity among Black online learners, such as the ranges of age, enrollment rates of males and females, full-time and part-time, and employment status (Salvo et al., 2019). African American online learners also have been described as having higher incomes, higher sense of cultural awareness and positive racial identity, independence, and tend to be unmarried with dependents, as compared with similar cohorts of non-online learners.

As noted, age range is one of the areas of diversity among Black online learners. In general, there is a growing trend where older adult learners are attending many colleges and universities in the United States (Edu Ventures, 2015). "Adult learners" are individuals who fall within the age range of 25 to 65 or beyond (Miriam & Kee, 2014). Some identify older learners as individuals who are beyond the age of 34 who decide to attend a college or university to obtain additional degrees or additional course credits (Eduventures, 2015). However, as Miriam and Kee (2014) noted, adult learners may be

much older than 34. This trend of older adult learners attending colleges and universities or taking additional courses is linked to lifelong learning patterns among the increased participation of younger adult learners at university education. Further, level of prior education is associated with the increased likelihood of subsequent participation in educational programs (Eduventures, 2015; Mirriam & Kee, 2014).

Since 2014, there have been predictions of higher enrollment in higher education of students 25 and older, as compared with traditional age college students (NCES, 2016). In a recent report, the figures actually were more impressive. In the fall of 2017, 28% of students who enrolled full-time in four-year undergraduate postsecondary degree programs were 35 years or older. With respect to part-time enrollees at undergraduate postsecondary institutions, students who were 35 years or older comprised 17% of enrollees at public, 33% for nonprofits, and 41% for for-profit institutions (NCES, 2019). These changes in the age demographics of college students have fueled growing support to explore way to improve more direct retention strategies for these adult learners (Cummings et al., 2019; Johnson, 2019). These developments are important because there are indications that due the lack of preparation and skills on entering higher education, as many as a third of adult learners may be expected to fail in their academic courses (Renirie, 2017).

Several researchers have noted that while the traditional high school-college pipeline is often enabled by school systems, recruiters, administrators, and parents, the path to college for adults can be more challenging (Renirie, 2017; Walsh & Rrobinson-Kupius, 2016). A change in their lives such as a serious illness or unemployment drives

adults toward higher education and a degree in order to expand their career. However, sometimes there may be roadblocks along the way to their success. These roadblocks include navigating the logistics of application and acceptance having and managing the time, money, and energy needed to attend classes, and confidence issues related to their education history. Online classes, with their flexible schedules, can help ameliorate the situational concerns, and this format has been increased growth with the adult student population (Renirie, 2017).

Sloane-Seale and Kops (2013) conducted a study on older adults' decision to pursue further study by going back to college. The authors noted that lifelong learning for older adults involves formal knowledge, behavior gained from daily living, behavior related to systematic educational activities beyond the boundaries of formal knowledge. The sample for this study included 967 older adults (40-55) who completed a survey to identify the learning interests and motivations related to participation in creative retirement activities. The results of the study indicated that these learners preferred to learn for interest in non-educational settings, were physically and financially capable, confronted situational and institutional barriers of learning, and considered learning important to their lifestyle. Sloane-Seale and Kops (2013) concluded that continuing education has a role to play in developing and supporting learning opportunities and programs for older adult learners.

Thompson and Foth (2014) reported that some reasons older adult learners pursue further studies were the will to finish a degree they had started during their younger years or to fulfill a dream or goal by means of earning a graduate degree. Also, they go back to

school to satisfy their intellectual curiosity on a broad range of topics, and they want to further the development of skills to express their creativity. Further, older adult learners claim that intellectual curiosity and creativity development are the main reasons for pursuing education at an older age (Thompson & Foth, 2014).

Renirie (2017) conducted a review of the literature to examine the similarities and differences in the retention of adult learners and traditional-aged college freshmen with respect to strategies to retain these students in college. Renirie used such terms as retention, persistence, attrition, and higher education for the search. The results of the review indicated that there was a connection between library information literacy intervention and student success. The study also indicated that self-efficacy impacted student success and persistence while in college. Some factors that colleges and universities should focus on were life experiences, classroom success, students' relationships, technology assistance, and effective communication. The author noted that there was a thin line between the needs of traditional and nontraditional students, although nontraditional students had more confidence in their college experiences. Further, it was recommended that many strategies used for retention of students should take place in the academic departments and support services such as advising, registration, and financial aid.

Black Males and Females in Online Education

There is a gender gap in higher education, with more females than males enrolling at colleges and universities across the United States, and earning college degrees (More, 2014). This gender gap also exists with African Americans, with females earning higher

grades and completing colleges at a faster pace than black male (More, 2014). This gender gap can be traced back as far as 1974 and has continued throughout history at many colleges and universities across the country (Shea & Bidjerano, 2014). In addition, African American male students' enrollment at institutions of higher education is approximately 4.5%, which is the same enrollment percent it was in 1976 (Salvo et al., 2019). Further, this gender gap is traditionally seen in online education for African American males and females, with African American females outperforming males in taking online courses and completing online courses (Shea & Bidjerano, 2014; Xu & Jaggars, 2014).

Salvo et al. (2019) conducted a study on African American males' persistence in respect to academic achievement with online courses. Results of the study indicated factors that contributed to online course completion were prior academic achievement, previous information technology skills and training, use of digital devices, and working in a non-prejudicial learning environment. The authors noted that colleges and universities must develop strategies to improve the graduation rates of African American males: only 17% complete bachelor's degrees.

When compared with African American males, African American females reported better overall instructional quality in their courses (Hart et al., 2017). African American females reported that they were connected learners meaning that they tend to emphasize understanding, compassion, acceptance, and cooperation during the online learning process. They also noted that they received more collaboration and communication resulting in them feeling a sense of belonging in the online courses (Hart

et al., 2017; Salvo et al., 2017) and greater perceived social presence in the online course environment (Xu & Jaggars, 2014).

Further, some communication styles used by African American female online learners have been perceived as more friendly and polite than many African American males (Tucker, 2014; Xu & Jaggars, 2014). By contrast, African American male online learners are more independent, preferring to take their online courses with little help and without socializing with others. Relatedly, they are less aware of others' feelings, are more assertive, less collaborative, and sometimes use language that can be perceived as rude and harsh (Venkatesh et al., 2014). Finally, African American female students have reported a stronger sense of community in the online course, while African American males report more community in face-to-face courses (Yan et al., 2015).

Motivation and Persistence of Black Males and Females in Online Courses.
As Friedman (2018) noted, online learners may not understand the requirements of online learning, especially the necessary organizational skills and determination to succeed in online courses. Many students in online courses are learning the materials on their own. There is no pressure to show up for a physical classroom with other students and the instructor. Also, many online learners complete their assignments with little or no direct help from their instructor. In order for students in an online setting to be successful, self-motivation and discipline is needed in online courses.

African American female online learners have been described as more engaged (Xu & Jaggars, 2014) and more persistent, outpacing African American male online learners (Tucker, 2014). Persistence means the ability to complete an online course

despite adverse circumstances or obstacles (Yeboah & Smith, 2016). Researchers noted that students who are satisfied with their online courses and their program of study persist. Also, students who have a sense of belonging to a learning community in online courses also show higher levels of persistence (Yeboah & Smith (2016). Students who are comfortable establishing relationships in an online environment tend to persist at a higher rate. These are student who are successfully participating in online discussions and work with others they do not know or have not met in person. Highly motivated students' complete online courses at a higher rate than students who are not as motivated (Friedman, 2018; Yeboah & Smith (2016). .

The Grit Personality Trait

Intellectual ability is widely used as a predictor of academic achievement (Bazelais et al., 2016). This link between intellectual ability and achievement has been well established. However, intellectual ability is no guarantor of success in completing college programs. Duckworth (2009) argued that these achievement differences could be explained by personality variables such as traits like perseverance, or specifically, "grit." While the focus on intellectual ability in academic achievement has been understandable and even necessary, there is a gowning awareness of the inadequacy of intellectual ability to predict all facets of academic achievement and success across the lifespan. Motivational and personality variables, such as grit, enhance understanding and prediction of academic achievement (Bazelais et al., 2016).

Duckworth et al. (2007) proposed that grit was related to trait-level passion and perseverance, which influences efforts and stamina and, relatedly, outcomes for long-

term goals. They envisioned grit as uniquely different from other traits, such as

conscientiousness, included in the Big Five theory of personality (Soto, 2018), and

McClelland's (1985) need for achievement. Duckworth et al. (2007) developed the Grit

Scale to operationalize measurement of grit. The self-report scale was used to predict

completion of a demanding Beast Barracks training program among 1,200 first year West

Point cadets. Among grit scores, high school standing, physical fitness status, and

leadership experience, only grit scores accurately predicted the 71 cadets who did not

finish the program (Duckworth et al., 2007).

Subsequently, Duckworth and Quinn (2009) developed and validated the 8-item

Short Grit Scale (Grit-S). As with the original version, confirmatory factor analysis

supported a two-factor scale with persistence of effort and consistency of interest

subscales. Across a series of studies, results supported reliability and validity of the

measure. For example, they found that persistence of effort was positively related to

GPA, extracurricular activities, and negatively related to time spent in watching

television among a sample of adolescents. However, consistency of interest was uniquely

negatively related to career changes, but positively related to reaching the final round in

the National Spelling Bee. Further, the combination of both dimensions of grit (i.e., the

total Grit-S score) was an even better predictor of reaching the final round in the National

Spelling Bee and retention of West Point cadets. They also demonstrated unique

contributions of Grit-S scores when used in combination of scores on the Big Five

Inventory to predict level of attained education. While they did not find gender

differences for scores on the Grit-S, among a sample of adults who were 25 years or

older, older adults reported higher grit scores than their younger counterparts. Duckworth and Quinn (2009) suggested that such age differences might be related to stabilization of interests and to other traits that are related to psychological maturity over time (p. 169).

Chang (2014) conducted a study on the relationships of grit to race, gender, and academic performance of first year college students from a highly selective private four-year college students located in the southern part of the United States. The population for the study consisted of 342 students, of whom 67% were females and 33% were males. The sample was drawn from a total sample of 2035 incoming first year students for the 2013 academic school year. The data for the study consisted of previous academic achievement of ACT/SAT, and High school GPA, the grit survey data, and academic performance for the first year cumulative GPA. There were no significant differences between racial groups in first year GPA. However, females on the average had significantly higher first year GPA than did their male counterparts. Chang (2014) analyzed the data to determine whether the grit subscales for consistency of interest and perseverance of effort were significant predictors of academic performance in first year college students. The results indicated that the perseverance subscale was a positive and significant predictor of first year GPA.

Aparico et al. (2017) examined relationships between grit and learning experiences among a sample of 383 undergraduate and graduate student e-learners from several public and private universities in Europe. As expected, grit scores predicted both persistence and consistency of interest among these e-learners. On the other hand, De et al. (2015) conducted a qualitative study with 25 Asian graduate students to investigate the

factors contributing to grit in a nonwestern context. The data collected consisted of in-depth interviews from a diverse population from different ages and nationalities of randomly selected graduate management students in an Asian graduate school. The results of the study showed that social support was a crucial element to passion and perseverance in achieving personal and work goals. Participants wrote that grit is long-term and emphasizes steadfastness and perseverance. The participants further noted that grit was associated with persistence, and the strong reliance on external or social support systems such as family, friends, significant others, superiors, and co-workers.

Gaps in the Literature: Grit Among Nontraditional Online Adult Learners

To date, there is very limited research on grit among nontraditional online adult learners, and none that focuses specifically on male and female Black college students who are adult online learners, including those who are older than 40. Is grit a relevant motivational factor for these students? Might the differences in retention rates among Black male and female college students reflect differences in the motivational factor, grit? Might younger and older nontraditional Black online learners differ on grit?

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Summary

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This literature review highlighted the continuing problem of retention among Black college students, especially among Black males. Many factors have been identified as related to retention issues, from academic preparation to microaggressions that are experienced by Black students. As more Black college students migrate to online learning, it is important to examine factors that may support better academic outcomes. Among these are motivational factors. Grit is one such motivational factor. Although a

relatively newer construct, it has received initial validation in the limited number of studies to date of traditional, on-campus undergraduate students. There are only limited numbers of studies with online students and nonspecific to Black online students. Further, possible gender differences in grit that have been reported in some other studies have not been examined among Black online students. Finally, to date, no studies have explored grit among younger and older Black online nontraditional-age undergraduate students, such as those who are between 24 and 49 or 50 or older. Understanding possible differences based on age and gender in the motivational factor of grit among Black adult online learners may help educators to tailor educational approaches to advising, mentoring, and course expectations for these diverse online learners to support their performance and persistence in their degree-seeking efforts. The current study proposes to address these gaps in current understanding. The RQs along with description of the research design will be detailed in Chapter 3.

Chapter 3: Research Method

The purpose of this quantitative quasi-experimental study was to examine grit among Black online nontraditional-age undergraduate students. Specifically, I compared grit scores for male and female students as well as for younger nontraditional-aged students (27 to 49 years) and older (50 or older) nontraditional students. Understanding possible differences based on gender and age in the motivational factor of grit among Black adult online learners may help educators to tailor educational approaches to advising, mentoring, and course expectations for these diverse online learners to support their performance and persistence in their degree-seeking efforts.

Chapter 3 presents the research design and its appropriateness to the study. A description of the population, sampling procedures, recruitment, and data collection procedures will be outlined in the chapter. Operationalizations of constructs and data analysis plans are also presented. Threats to validity as well as ethical procedures will also be discussed. A summary of the important details about the proposed methodology will conclude the chapter.

Research Design and Rationale

This study employed a quantitative methodology with a between-group research design. The quantitative method is appropriate to use when the researcher wishes to examine identified hypotheses objectively with the use of statistical analysis on numerical variables measured through quantitative, validated surveys (Allwood, 2012; Mustafa, 2011). In addition, researchers use a quantitative 2 x 2 factorial research design if the objective of the study is to determine between-group differences and possible

interactions between independent variables in relationship to the dependent (Curtis et al., 2016; Goertz & Mahoney, 2012; Goodwin & Goodwin, 2013; Leedy & Ormrod, 2010). I used this design to examine between-group differences in grit among Black online nontraditional-age undergraduate students based on age (27 to 49, 50 or older) and gender (male, female). The dependent variable, grit, was measured numerically using a validated survey instrument. This design helped to address the following RQs:

RQ 1: Among Black nontraditional-age online undergraduates, do male and female students differ on grit (as measured by the Grit-S Scale)?

RQ 2: Among Black online undergraduates, do younger and older nontraditional-age students differ on grit (as measured by the Grit-S Scale)?

RQ 3: Is there an interaction between age and gender in relation to grit (as measured by the Grit-S Scale) among Black nontraditionally aged undergraduate online learners?

Methodology

Population

The target population for the study were Black male and female, nontraditional-aged (27 years or older and 50 and older) undergraduate students who currently are taking online courses at colleges and universities across the United States. Colleges and universities across the United States offer hundreds of online courses to its students in various subjects to obtain college credit. Another criterion for these students was adequate comprehension of English. The exclusion criteria included any students who did not meet the criteria as listed in this paragraph.

Sampling and Sampling Procedures

Purposive sampling was used for the selection of students in the study. Purposive sampling is a probability sampling technique that involves the careful selection of participants, so only potential participants who meet the eligibility criteria set forth for the study will be included (Barratt et al., 2015). The mindful selection according to the eligibility criteria was done to yield richer, valuable, and relevant insights from the target audience of the study (Setia, 2016).

A priori power analysis was conducted to determine the required minimum sample size for the study. Four factors were considered in the power analysis: significance level, effect size, power of test, and statistical technique. The significance level, also known as Type I error, refers to the chance of rejecting a null hypothesis given that it is true (Haas, 2012). Most quantitative studies make use of a 95% significance level because it adequately provide enough statistical evidence of a test (Creswell, 2012). The effect size refers to the estimated measurement of the relationship between the variables being considered, which can be small, medium, and large (Cohen, 1988). A medium effect size is better, as it strikes balance between being too strict (small) and too lenient (large; Berger et al., 2013). The power of test refers to the probability of correctly rejecting a null hypothesis (Sullivan, & Feinn, 2012). In most quantitative studies, an 80% power is usually used (Sullivan, & Feinn, 2012). The statistical test used for this study was a 2 x 2 factorial design using an ANOVA analysis with two age groups and two gender groups and one dependent variable.

Using G*Power 3.1.9.2 (Faul et al., 2009), the computed required minimum sample size with a $p = .05$ significance level, medium effect size (.25), 80% power of test, four groups, and the *df* for the numerators at 1 for a fixed effects and interactions factorial ANOVA was 128. Recruitment ended when I had 138 cases (with sufficient minimum number in each coclassified group, i.e., 32) with no missing responses to analyze.

Procedures for Recruitment, Participation, and Data Collection

Permission to conduct the study was obtained from the Walden University Institutional Review Board before data collection began (approval number 08-19-20-0268198). I used Facebook and LinkedIn to recruit participants who met inclusion criteria. Those who elected to participate then followed the instructions in the announcement for accessing the full survey (informed consent form, survey package). The participants did not receive payment for participating in the research study.

Individuals who read the recruitment announcement and had interest proceeded to the URL of the survey site, which was set up on Survey Monkey. When a potential participant went to the survey site, the first page of the survey presented the informed consent form, which included basic information to inform possible participants about the study and their rights as participants. At the bottom of the form, the participant was presented with three choices: (a) to agree to participate (sign the informed consent form), (b) choose not to participate in the study, and (c) to request more information before making a decision to participant in the study. Individuals who chose to participate in the study were forwarded to the first page of the survey. Any individual who chose not to

participant in the study was forwarded to a "Thank you" exit page. The individuals who requested more information was forwarded to a page that provides an email address to contact me to obtain further information.

Those who proceeded to the survey first answered a few demographic questions to allow for description of the sample (see Appendix A). After completing the demographic questionnaire, the participants advanced to the Grit Survey. The informed consent form and the full survey took no more than 20 minutes to complete. Data from survey participants were downloaded from Survey Monkey to an Excel spreadsheet and then set up as a data file in SPSS.

Instrumentation and Operationalization of Constructs

Gender and age were defined via the self-reported information from the demographic's questionnaire. For the purposes of this study, a delimitation was that only those who self-identify as male, or female was selected to participate in this study. Age groups were defined from the response on the demographics questionnaire regarding age in years: those who self-report age as 24-49 was considered as younger nontraditional-age students, while those who self-report age as 50 or older was considered as older nontraditional-age students.

This quantitative study utilized one validated instrument for measurement of grit. The Short Grit-S Survey (Grit-S; Duckworth & Quinn, 2009) was developed to measure perseverance needed to accomplish long-term goals in the face of challenges and obstacles. The respondents on the Grit-S are asked to rate themselves on eight different statements, such as "I finish whatever I begin or I have overcome setback," using a scale

of 1 (*not at all like me*) to 5 (*very much like me*). The overall Grit-S score is the mean

rating on the respective items. In one study by Duckworth and Quinn (2009), the short

scale (Grit-S) and the 12-item self-report measure of the Grit (Grit-O) measuring the Grit

was strongly correlated with conscientiousness ($r = .77$, p < .001). A larger study was

conducted with twins measuring both conscientiousness and the Grit found that they had

a large correlation of 0.86. A meta-analysis found that the Grit was functionally a

measure of conscientiousness. Duckworth and Quinn (2009) noted that the Grit has a

high correlation with conscientiousness and suggested that the Grit is more strongly

associated with long-term and multi-year goals such as in education.

Internal consistency for the full Grit-S is estimated to be $\alpha = 0.85$ (Duckworth &

Quinn, 2009). As noted earlier in Chapter 2, predictive validity has been established in a

number of studies (for example, Aparico et al., 2017; Chang, 2014; Duckworth & Quinn,

2009) regarding relationships between scores on the Grit-S and academic achievement-

related behaviors and outcomes.

Data Analysis Plan

Data from incomplete Grit surveys or from participants who did not meet the

eligibility requirements were excluded from the data analysis. Data analysis were

conducted in the following order:

Data Cleaning. The data were visually inspected for possible errors in the data

being entered in SPSS. Any data errors were corrected before the final analysis. The use

of SPSS (version 25) was used to explore missing values and data outliers. Depending on

the frequency or number of missing values for certain participants and questions on the

survey, a determination was made to either delete the participant's data or use a method of imputation (e.g., substitute the missing value with the individual's mean score on the scale).

Descriptive analysis was conducted first in order to characterize the demographics of the participants as well as their responses to the survey. Descriptive statistics such as frequency, percentage, mean, and standard deviation was computed. Charts such as pie charts and histogram were generated to accompany the descriptive analysis.

Testing assumptions for statistical tests. As I used a factorial ANOVA to test my research hypotheses, I tested to see if my data meet the assumptions of this analysis. The assumptions for this statistical test and method I used to evaluate are as follows:

I first evaluated whether the distribution of scores on my dependent variable (Grit) contains any outlier values ($> \pm 2.96$ SDs from the mean). If the outliers did not appear to be a measurement or data entry error, I used a Winsor correction where the value of the outlier was changed to that of the next observed value that is closer to the mean and within the acceptable range (https://www.statisticshowto.datasciencecentral.com/winsorize/). The distribution with the outlier correction(s) then was used for further evaluations.

Because a factorial ANOVA was a parametric test, there is a need to examine first whether the data gathered adhere to the statistical assumptions of the test. Particularly, the normality, homogeneity, and no collinearity assumptions were tested using SPSS. The normality assumption assumes that the distribution of the dependent variable scores is normally distributed with a mean of zero, one standard deviation, and a symmetric bell-

shaped curve (Finch, 2005). I evaluated this assumption by examining the histogram plot of the scores and the skewness and kurtosis values. If these evaluations lead me to consider the distribution as approximating normality, I assumed that the assumption has been met. If not, I applied possible transformations to the data (e.g., for correcting skewness) to see if normality can be improved. If I could not satisfy the assumption of normality, I considered alternative nonparametric tests for analyses. The assumption of homoscedasticity refers to the equal variance of all values of the independent variables around the regression line (Finch, 2005). I assessed data for this assumption by reviewing plots of residuals. As data were collected from different groups, the assumption of independence of cases were met through design.

Sample Demographics. Frequencies of response by participants to questions on the demographic's questionnaire was summarized. Participants were classified according to their responses to questions on the demographic's questionnaire for gender (male, female) and age (24 to 49, 50 or older). Frequencies of cases that fall into each co-classification group (i.e., gender X age) were reported.

Testing Research Hypotheses. The 2 X 2 factorial ANOVA was performed to test each of the research hypotheses. Main effects and interaction effects was evaluated from the results of the analysis.

RQ1. Among Black nontraditional-age online undergraduates, do male and female students differ on grit (as measured by Grit-S Scale)?

RQ2. Among Black online undergraduates, do younger and older nontraditional-age students differ on grit (as measured by Grit-S Scale)?

RQ3. Is there an interaction between age and gender in relation to grit (as measured by Grit-S Scale) among Black nontraditionally aged undergraduate online learners?

Research Question 1 was evaluated from the main effect for gender of student. Research Question 2 was evaluated from the main effect for age of student. Research Question 3 was evaluated from the interaction term for age X gender. If this term is statistically significant, further analyses was done to evaluate the specific differences that are reflected by the statistically significant interaction.

Threats to Validity

Having external validity allowed the researcher to generalize of sample findings to the population (Trochim, 2006). This method of randomized selection allowed the researcher to draw out the sample from this population in a way that maintains the external validity of the study. The participants in this study were randomly selected as they volunteered from those who receive information about the study through the recruitment methods. Thus, there were limitations on generalization of findings to the larger population. It was not known if the results from the volunteer sample are the same as those that might be observed among those who read the recruitment information and decided not to participate or among those who were not exposed to the recruitment information. Further, individuals who either are having difficulty with their college study may be more likely to participant. This could skew the data in unknown ways.

Internal validity is related to the strength of the research design. In my study, I employed reliable and valid measure for the dependent variables. The survey instrument was consistent with the construct being studied.

I am making two assumptions regarding this research. First, it was assumed that all participants provided honest responses. Thus, to assist respondents in providing honest answers respondents received information about the study's strict adherence to confidentiality. Additionally, a written reminder explaining that participation in the study was voluntary and that any participant can opt-out of the survey will be provided that might help to alleviate participant concerns regarding confidentiality and anonymity. Second, it was assumed that the survey participants answered all survey questions to the best of their ability. There was no physical contact between the researcher and the participant during the data collection phase and thus the researcher cannot interfere during the time when the participant is completing the survey. Clear instructions were provided to lessen the probability of confusion and misunderstanding of each question.

Delimitations

The scope of this study wase Black, nontraditional-age undergraduate students enrolled in online courses the American colleges/universities who are members of online groups. Further, only those who self-identify gender as male or female was included in the study. Although this oversimplifies the construct of gender, it was consistent with previous research regarding gender differences in college persistence and grit.

Limitations

As noted earlier, I did not use random sampling. Thus, there were limitations of generalization of findings to other Black, nontraditional-age undergraduate college students in online courses. While online surveys are known to allow for broader accessibility and lower costs, the recruitment information reached those who are active in online sites or participate in the Walden participant pool and choose to consider this study. Limited funding kept me from also using other recruiting services that charge for use of their participant pools.

Ethical Procedures

The proposed study began with institutional review board approval from the university, so as to ensure ethical standards were met. Where appropriate, I contacted online group administrators to seek permission to post recruitment information on their sites. The research did not expect to pose any harm to participants for several reasons. First, the survey was anonymous. No specifically identifying information was collected, and all reports were based on group, not individual, data. Second, the participants were not members of a vulnerable population. Further, the brief survey was a personal strain on participants. Questions do not inquire about sensitive information and did not provoke discomfort to other negative emotions from participants.

Digital data from the survey, as well as analyses and drafts, were stored and maintained on a password-protected hard drive and flash drive. Any hard copies of data or drafts of reports were maintained in a locked filing cabinet inside the personal office of the researcher. All data and documents related to the study will be destroyed seven years

after completion. Hard copies will be shredded while soft copies will be deleted from computer drives.

Summary

The purpose of this quantitative quasi-experimental study was to examine possible between-group differences between male and female and younger and older nontraditional-age Black undergraduate online learners in the motivational factor, grit. The theoretical frameworks for this study are life-span development theory and grit theory. I will use a validated measure of the construct of grit, the short form of the Grit Survey. I will examine possible differences in grit based on gender and age. Findings may help to explain observed differences in persistence and academic achievement between Black males and females, as well as younger and older nontraditional-age undergraduate college students. Understanding the impact of these kinds of individuals characteristics may lead to better strategies for supporting individual differences among Black undergraduate to aid in their academic achievement in online courses.

Chapter 4: Results

The purpose of this quantitative quasi-experimental study was to examine possible between-group differences in motivation to persevere, as defined by grit, among nontraditional Black online college students. Understanding possible differences based on age and gender is the motivational factor of grit among Black adult online learners that may help educators to tailor educational approaches to advising, mentoring, and tailor course expectations for these diverse online learners to support their performance and persistence in their degree-seeking efforts. This study could contribute to a better understanding of motivational factors among this population, which would help explain why almost two thirds of Black male college students fail to finish their degrees. With this understanding, raising the rate of retention could be done to ensure that Black college graduates are proportionately represented in the workforce and society.

This chapter presents the findings of the data analyses. Descriptive statistics were used to describe the characteristics of the participants, and I also evaluated assumptions for planned inferential analyses. The Cronbach's alphas are reported for the scales. The 2 X 2 factorial ANOVA was performed to test each of the research hypotheses. Main effects and interaction effects were evaluated from the results of the analysis.

Data Collection

The sample was drawn from a pool of male and female, younger and older nontraditional-aged Black online college students. I used use Facebook and LinkedIn to recruit participants. Those who elected to participate followed instructions for accessing the full survey on Survey Monkey. The participants did not receive payment for

participating in the research study. When a participant entered the online survey site, they were first asked to indicate whether they agreed to participate. If the individual selected, "I agree," they were advanced to the first page of the survey. If they chose, "I do not agree," the participant was directed to another page that thanked them for their consideration and then exited them from the survey.

Participant Demographics

A total of 146 surveys were collected from male and female, younger and older nontraditional Black online college students. Of these, 138 participants completed all requirements of the online self-report survey; seven participants started but did not finish the online survey. There were no missing data among the final participants because I set up the online survey so that the participant had to complete each question before proceeding to the next. Completed returns from 138 participants were included for analyses.

Frequencies and percentages were used to describe the characteristics of the research sample. Table 1 presents a summary of participant demographics. Most participants were in the age range of 27 to 33 years old (69%). Gender was almost evenly split; there were 70 (50.36%) African American males and 69 (49.64%) African American females. Most (87, 62.59%) were enrolled part-time, and 52 (37.41%) were enrolled as full-time students. In terms of college majors, 53(38.13%) were majoring in psychology, 33(23.74%) in education, and 21(15.11%) of the participants were majoring in business.

Table 1

Participant Demographics

Variables	Frequency	Percent
Age		
27-33	93	69.91
34-40	27	19.42
41 and older	19	13.67
Sex		
African American Females	69	49.64
African American Males	70	50.36
Current Year of Study		
Freshman	5	3.6
Sophomore	17	12.23
Junior	57	41.01
Senior	60	43.17
Enrollment Status		
Part-time	87	62.59
Full-Time	52	37.41
Current Major		
Psychology	53	38.13
Education	33	23.74
Business	22	15.11
Computer Science	8	5.76
Sociology	16	11.51
English	3	2.16
Mathematics	3	2.16
Nursing	1	0.72

Data Analysis

Independent Variable Groups

To have relatively equal numbers of participants in the two age groups, I used the median split technique to create two groups. The median age was 31 years. Those 30.5 years or younger were identified as the younger nontraditional-aged students, and those older than 30.5 years were designated the older nontraditional-aged students (see Table 2).

Table 2

Distributions by Age and Gender

	Code	Value Label	N
Age Groups based on	1.00	Less than 30.5 Years	63
Median Split at 30.5	2.00	Greater than 30.5 Years	76
What is your Gender	1	Males	70
	2	Females	69

Evaluating for Missing Responses to Individual Scale Items

Prior to evaluating the responses on the Grit Scale, I examined the data for missing responses and missing values. The data were visually inspected for data entry errors. There were no data entry errors as the data from their survey responses were directly entered into an Excel spreadsheet from the SurveyMonkey website. My plan was to eliminate any cases with more than 20% of responses missing for a given question (Creswell, 2017). Where there were fewer missing values, I planned to use SPSS procedures for imputation of the mean score based on other responses to replace the

missing value or values for that case. There were no cases with missing responses or missing values.

Internal Reliability Checks

Cronbach's alpha values were examined for the series of items composing the scale. George and Mallery (2016) describes value of the coefficients that can be interpreted through incremental which include $\alpha \geq .9$ Excellent, $.9 < \alpha \geq .8$ Good, $.8 < \alpha \geq .7$ Acceptable, $.7 < \alpha \geq .6$ Questionable, $.6 < \alpha \geq .5$ Poor, and $\alpha < .5$ Unacceptable. The results for the scale were questionable threshold, $< \alpha \geq .6$ Cronbach's alpha value. The value, $\alpha = .704$, suggests acceptable internal reliability for this sample.

Data Cleaning and Screening

The scale ratings were computed for the Grit-S Scale with respect to the data cleaning and screening. Reverse scoring was done, as needed, and the means of ratings for the scale were computed as the scale scores. These are reported in Table 4.

Table 3

Descriptive Statistics of Mean Grit-S Scores

Research variables	Mean	*SD*	Skewness	Kurtosis
Grit Scale Total Scores	2.13	.044	.014	-.833

Note. N = 139

I used the SPSS explore function to evaluate the distribution of scores for outliers and normality by examining computed values for skewness and kurtosis as well as histograms, q-q plots, and box plots (see Appendix B). Using box plots, I sought to identify any data points that were more than three standard deviations from the

distribution mean. There were no outliers with more than three standard deviations from the distribution mean.

Evaluation of Assumptions for Analysis

In this study of Black nontraditional age online undergraduate students, there were two independent variables: Age (younger, older) and Gender (males, female) and one dependent variable, GRIT-S score. I planned to evaluate the research hypotheses using a 2x2 factorial ANOVA. I tested each of these assumptions to verify that my data satisfied the assumptions for use of a 2x2 factorial ANOVA by computing values for skewness and kurtosis, examining histograms, q-q plots, and box plots, and checking results of the Shapiro-Wilk test for normality and Levine's test for homogeneity. Also, as there were no repeated measures and groups were independent, no collinearity was suspected.

Assumption of Normality

The normality assumption assumes that the distribution of the dependent variable scores is normally distributed with a mean of zero, one standard deviation, and a symmetric bell-shaped curve (Finch, 2005). I evaluated this assumption by examining the histogram plot of the scores and the skewness and kurtosis values. I determine from my evaluations that the distribution was approximating normality, I assumed that the assumption has been met. If not, I would have applied possible transformations to the data (e.g., for correcting skewness) to improve the normality of the data. I also ran the *Kolmogorov–Smirnov test* for normality, which indicated no problems (see Table 4).

Table 4

Kolmogorov–Smirnov Test of Normality

	Statistic	df	Sig.
Grit-S Mean Scale Score	.062	139	.200

Assumption of Homogeneity of Variance

The assumption of homoscedasticity refers to the requirement for equal variance of all values of the independent variables around the regression line (Finch, 2005). I assessed the data for this assumption by reviewing plots of residuals. Again, I used the SPSS explore function to test for normality by examining computed values for skewness and kurtosis as well as histograms, q-q plots, and box plots. I also checked the results of the Levine test for homogeneity. Results are presented in Table 6. There was some indication that there may be some heteroscedasticity in these data. This will be discussed when I consider possible limitations of these results.

Table 5

Levine's Test for Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
Grit-S Mean Scale Score	Based on Mean	2.859	3	135	.039
	Based on Median	2.624	3	135	.053
	Based on Median and with Adjusted df		3	120.662	.054
	Based on Trimmed Mean		3	135	.043

Note. Tests the null hypothesis that the error variance of the dependent variable is equal across groups. a. Dependent variable: Grit-S Mean Scale Score b. Design: Intercept + AgeGroup + Gender + AgeGroup * Gender

Results

The purpose of this quantitative quasi-experimental study is to examine grit among Black online nontraditional-age undergraduate students. Specifically, I am comparing grit scores for male and female, as well as for younger nontraditional-aged students (27 to 31 years) and 32 and older Black adult learners. Understanding possible differences based on gender and age in the motivational factor of grit among Black adult online learners may help educators to tailor educational approaches to advising, mentoring, and course expectations for these diverse online learners to support their performance and persistence in their degree-seeking efforts.

Group means and standard deviations across the four classifications by age and gender are summarized in Table 6. Initial examination of means suggests that, overall, males had higher Grit-S scores than their female counterparts, and younger nontraditional age students had higher Grit-S scores than older nontraditional age students..

Table 6

Grit-S Scores by Classification by Age and Gender

Student Groups	Males	Females
Younger (27-30 years)	Mean = 2.37 SD =.47 N = 29	Mean = 1.86 SD =..46 N =34
Older (31 or older)	Mean = 2.34 SD =.44 N =41	Mean = 1.77 SD =.35 N =35

The 2 X 2 factorial ANOVA was conducted, with independent variables of Gender and Age and dependent variable of Grit-S score. Overall results are shown in Table 7. Results are reviewed with respect to each RQ.

Table 7

2 X 2 Factorial ANOVA Results for Main Effects and Interaction

Source	Type III sum of Squares	df	Mean Square	F	p-value [a, b]
Age Group	2.165	1	2.165	10.476	.002
Gender	9.590	1	9.590	46.401	.000
Age*Group	112	1	112	.541	.463
Error	27.900	135	.207		
Total	665.792	139			
Corrected total	39.005	138			

Note. a. R Squared= .285 (Adjusted R Squared= .269)
b. Criterion for significance, $p \leq .05$

Research Question 1

RQ1. Among Black nontraditional-age online undergraduates, do male and female students differ on grit (as measured by Grit-S Scale)?

H1 $_0$. Among Black nontraditional-age online undergraduates, male and female students do not differ on grit (as measured by Grit-S Scale).

H1 $_a$. Among Black nontraditional-age online undergraduates, male and female students do differ on grit (as measured by Grit-S Scale).

This research hypothesis was tested by examining the main effect for gender. As may be seen in Table 8, there was a statistically significant main effect for gender, $F(1, 135) = 46.40$, $p < .001$. Consequently, the null hypothesis was rejected. The mean Grit-S score for males was 2.37 (SD = .47), and for females, the mean score was 1.86 (SD = .46). Thus, males scored significantly higher than females on the Grit-S Scale measurement.

Research Question 2

RQ2. Among Black online undergraduates, do younger and older nontraditional-age students differ on grit (as measured by Grit-S Scale)?

H2 $_0$. Among Black online undergraduates, younger and older nontraditional-age students do not differ on grit (as measured by Grit-S Scale).

H2 $_a$. Among Black online undergraduates, younger and older nontraditional-age students do differ on grit (as measured by Grit-S Scale).

This research hypothesis was evaluated from the main effect for age of student. Again, referring to Table 8, there also was a statistically significant main effect for age, $F(1, 135) = 10.48$, $p = .002$. Referring to the group means, we can see that the mean Grit-S score for the younger group was 2.23 (SD = .55), and the mean score for the older group was 2.02 (SD = .49). Thus, the younger group scored significantly higher than older group on the Grit-S Scale measurement.

Research Question 3

RQ3. Is there an interaction between age and gender in relation to grit (as measured by Grit-S Scale) among Black nontraditionally aged undergraduate online learners?

H3 $_0$. There is no interaction between age and gender in relation to grit among Black nontraditionally aged undergraduate online learners.

H3 $_a$. There is an interaction between age and gender in relation to grit among Black nontraditionally aged undergraduate online learners.

When factorial analysis of variance was performed on the interaction of age and gender (age*gender) variable among black nontraditionally aged undergraduate online learners, no statistically significant interaction effect was noted. Thus, although males and females, and younger and older student groups differed significantly on Grit-S scores, within age groups there were no significant differences by gender, nor within gender groups, no significant differences by age.

Summary

The purpose of this quantitative quasi-experimental study was to examine possible between-group differences in motivation to persevere, as defined by grit, among male and female, younger and older, nontraditional, Black online college students. Understanding possible differences based on age and gender is the motivational factor of grit among Black adult online learners that may help educators to tailor educational approaches to advising, mentoring, and tailor course expectations for these diverse online learners to support their performance and persistence in their degree-seeking efforts. The results of this study indicated support for two of the three research hypotheses: there were significant differences between males and females and between younger and older nontraditional-aged Black undergraduate college students who participated in this study. The males scored higher than the female's Black undergraduate students and the younger students scored higher on the Grit- Test. A discussion of the results and the findings will follow in chapter 5 along with a discussion of the limitations of the study, how these results relate to current research literature, and recommendations for future research.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this quantitative quasi-experimental study was to examine possible between-group differences in motivation to persevere, as defined by grit and measured on the GRIT-S scale, among male and female, younger (27 to 49 years) and older (50 years or older) nontraditional-aged Black online college students. I explored gender differences in grit as a motivational factor because almost two thirds of Black male college students fail to finish their degrees, as compared with 47% of female college students (Ezeala-Harrison & Ahuja, 2018). Further, as the age of enrolled online college students continues to rise (Botha & Coetzee, 2016; Features, 2019; Ferman et al., 2016; Johnson, 2019), it is important to examine possible differences in motivation among younger and older adult learners in general and specifically among Black college students. Based on my review of the literature, this is the first study to explore these differences based on gender and age with grit among Black, nontraditional students.

Three RQs were posed to examine possible between-group differences among the study population. Each research hypothesis was evaluated using a 2 X 2 factorial ANOVA. Main effects and interaction effects were evaluated from the results of the analysis. Results of assessments using a 2 X 2 factorial ANOVA analysis indicated statistically significant gender differences in grit (as defined by scores on the GRIT-S scale), with males scoring significantly higher than females ($p < .001$). In addition, there were significant differences in grit between age groups; the younger nontraditional aged learners scored significantly higher than the older group on the GRIT-S scale ($p = .002$). There was no significant interaction between gender and age.

This chapter will discuss the findings of my study and their meaning in the context of theoretical framework and RQs. Results, and their interpretation, are presented for each RQ. The chapter will conclude with identification of the limitations of the study, implications for future research, and final conclusions from this study.

Interpretation of the Findings

My study was the first to explore grit as a possible motivational correlate of reported gender differences in academic performance, specifically retention, among Black adult online learners. Results were not consistent with actual retention patterns that have been reported for male and female Black college students (Ezeala-Harrison & Ahuja, 2018) nor with previously reported directions of motivational differences between younger and older adult learners (Ahapman et al., 2018; Anumba, 2015; Hall, 2017). Specifically, although Black females typically show higher retention and completion rates than Black males, my results showed higher grit scores among my sample of males. Further, previous theory and research has suggested greater intrinsic motivation among older adult learners when compared with younger adult learners. However, in my sample, the younger (under age 50) cohort had higher grit scores. Some possible explanations are considered here.

RQ 1

RQ1: Among Black nontraditional-age online undergraduates, do male and female students differ on the motivational trait of grit, including subfactors of persistence of effort and consistency of interest (as measured by Grit-S Scale)?

The results of the analysis indicated that there was statistically significant difference in the main effect for gender. Consequently, the null hypothesis was rejected. Males scored significantly higher than females on the Grit-S Scale measurement. Though these results are not consistent with actual gender differences in retention among Black college students, they may be suggestive of other factors that may play a more influential role among online learners. For example, Black male online students' self-reports of perseverance, effort, and consistency of interest may be less affected by race-related aggressions and microaggressions and more supported by convenience and flexibility and faculty and institutional support in the online environmental, allowing for more positive expectations and effective coping strategies (Brezinski, 2016; Greer & Baylor, 2015; Hunn, 2014; Khan, 2017; Tucker, 2014). However, academic performance by Black male online learners also suggests that factors are at play in relation to actual performance (see Tucker, 2014), such as social skills and interactions. Research has indicated that Black male online learners are more independent, preferring to ask for little help and socialize less, and they are more assertive and less collaborative (Venkatesh et al., 2014). There may be needs to enhance self-awareness among Black male college students in relation to their social skills and academic progress.

RQ 2

RQ2: Among Black online undergraduates, do younger and older nontraditional-age students differ on the motivational trait of grit, including subfactors of persistence of effort and consistency of interest (as measured by Grit-S Scale)?

The results of the analysis indicated that there was a statistically difference in the main effect for the age of the students. consequently, the null hypothesis was rejected. Younger students scored significantly higher than older group on the Grit-S measure.

My results appear to run counter to adult learning theory and to previous research findings. For example, older adult learners, in general, have been observed to be more intrinsically motivated than younger adult learners (Anumba, 2015; Botha & Coetzee, 2016; Kahn, 2017). I followed earlier practices of defining "older" learners as those who were roughly in the mid-30s or older (NCES, 2019). However, with 41% of students aged 35 or older in for-profit institutions (NCES, 2019), age ranges, including in my own sample, are wider and may even include cohorts of much older learners, including those who are over 50 years of age (Heretick & Tanguma, 2020). Thus, my groupings may not have be sufficient to reflect true differences in motivational patterns across later lifespan ranges.

RQ 3

RQ3. Is there an interaction between age and gender among Black nontraditionally aged undergraduate online learners on the motivational trait of grit, including subfactors of persistence of effort and consistency of interest (as measured by Grit-S Scale)?

The result of the analysis indicated that when factorial analysis of variance was performed on the interaction of age and gender (age*gender) variable among black nontraditionally aged undergraduate online learners, no statistically significant interaction effect was noted. Thus, although males and females, and younger and older student

groups differed significantly on Grit-S scores, within age groups there were no significant differences by gender, nor within gender groups, no significant differences by age.

Limitations of the Study

A limitation for this study was that there was no random sampling. Thus, there are limitations of generalization of findings to other Black, nontraditional-age undergraduate college students in online courses. While online surveys are known to allow for broader accessibility and lower costs, the recruitment information only reached those who are active on social media sites. Limited funding kept me from also using other recruiting services that charge for use of their participant pools. Further, my "older" adult learners' group was defined as older than 33 years. Perhaps this was not enough of a true difference in age groups to detect age-related/lifespan development differences.

Recommendations

Recommendations for future research include replication of this study that employs recruiting and sampling methods that tap into other samples of Black online learners, for example, online college participant pools, Black online student organizations, other recruitment services (e.g., Mechanical Turk, Prolific.co). It is difficult to know if my sample was truly representative of this population.

A second recommendation would be to include consideration of other variables that may interact with grit to predict retention, such as social attitudes and communication skills (Venkatesh et al., 2014). If Black male online learners do project self-reported perseverance and consistency of effect, what other person variables and/or

life circumstance may be counterweights to their retention relative to the retention of Black female online learners?

Implications for Positive Social Change

The first implication for positive social change is that this study draws attention to a better understanding of a possible motivational factor that may differ among male and female, younger and older, nontraditional-aged African American online students. Perhaps this kind of motivational factor helps to explain why almost two thirds of Black male college students fail to finish their degrees. It would be beneficial to society if the rate of retention for such students could be at least raised to the national average, so that Black college graduates could be proportionately represented in the workforce and society in general.

Awareness of possible differences in the motivational factor of grit may guide colleges and universities' activities for individualized support of their Black online students, including special differences between younger and older nontraditional-age cohorts. Institutional authorities could use the identified factors that may affect retention to aid them in developing and implementing counseling and retention efforts. An increase in the number of college graduates would benefit society as a whole; in particular; an increase in the number of Black college graduates would help to address social inequities that persist in American society.

Conclusions

The purpose of this quantitative quasi-experimental study was to examine possible between-group differences in motivation to persevere, as defined by grit and

measured on the GRIT-s scale, among male and female, younger (27 to 49 years) and older (50 years or older) nontraditional-aged, Black online college students. I explored gender differences in grit as a motivational factor because almost two thirds of Black male college students fail to finish their degrees, as compared with 47% of female college students fail to complete (Ezeala-Harrison & Ahuja, 2018) This is the first study to explore possible differences based on gender and age with the motivational concept of grit among Black non-traditional-age adult learners. Understanding possible differences based on age and gender in the motivational factor of grit among Black adult online learners may help educators to tailor educational approaches to advising, mentoring, and course expectations for these diverse online learners to support their performance and persistence in their degree-seeking efforts.

The result of the study indicated that. males scored significantly higher than females on the Grit-S Scale measurement. While these results are not consistent with actual gender differences in retention among Black college students, they may be suggestive of other factors that may play a more influential role among online learners. the result of the study also indicated that younger students scored significantly higher than older group on the Grit-S measure. In addition, Thus, although males and females, and younger and older student groups differed significantly on Grit-S scores, within age groups there were no significant differences by gender, nor within gender groups, no significant differences by age.

The significance of this study was that it could contribute to a better understanding of a possible motivational factor that may differ among male and female,

younger and older, nontraditional-aged African American online students. Perhaps this kind of motivational factor helps to explain why almost two thirds of Black male college students fail to finish their degrees. It would be beneficial to society if the rate of retention for such students could be at least raised to the national average, so that Black college graduates could be proportionately represented in the workforce and society in general. The original contribution from this study could be a quantitative conceptual understanding of age and gender differences in grit as a motivational factor that may affect Black males' intentions and retention in college towards degree completion.

Awareness of possible differences in the motivational factor of grit may guide colleges and universities' activities for individualized support of their Black online students, including special differences between younger and older nontraditional-age cohorts. Institutional authorities could use the identified factors that may affect retention to aid them in developing and implementing counseling and retention efforts. An increase in the number of college graduates would benefit society as a whole; in particular; an increase in the number of Black college graduates would help to address social inequities that persist in American society.

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Appendix A: Demographics Questionnaire

1.   What is your age? _____

2.   What is your gender?
- Male
- Female

3.   Which race or ethnicity do you identify with the most?
- American Indian or Alaska Native
- Hawaiian or Other Pacific Islander
- Asian or Asian American
- Black or African American
- Hispanic or Latino
- Non-Hispanic White
- Other

4.   What is your current year of study?
First (Freshman)   Second (Sophomore)   Third (Junior)   Fourth (Senior)

5.   Are you currently enrolled as a:
Part-time student   Full-time student

6.   What is your current major? _____

7.   How many online courses have you taken? _____

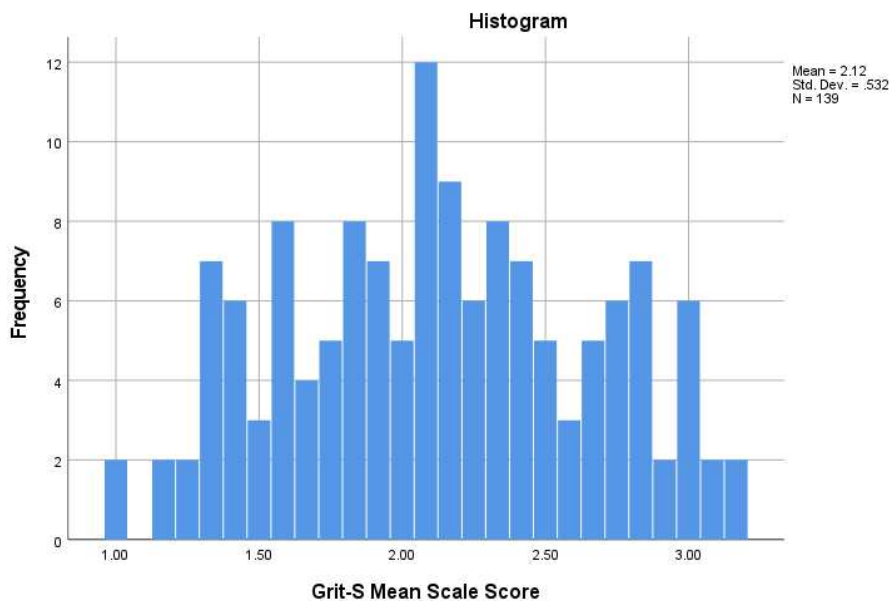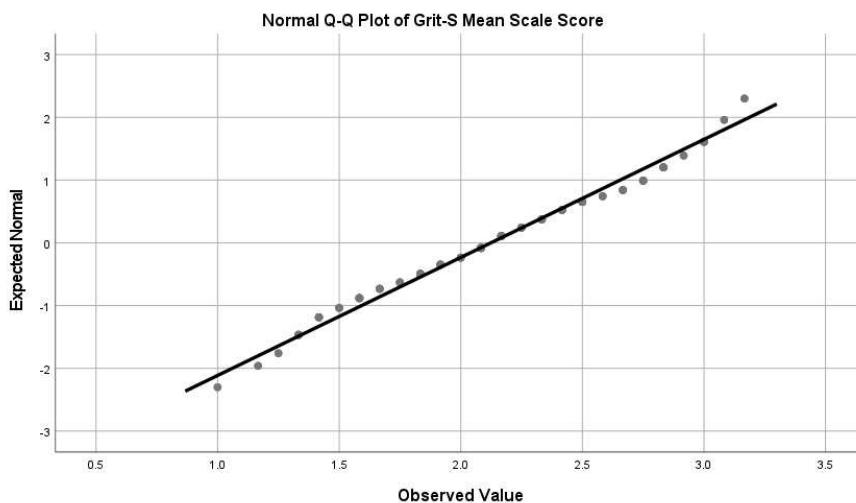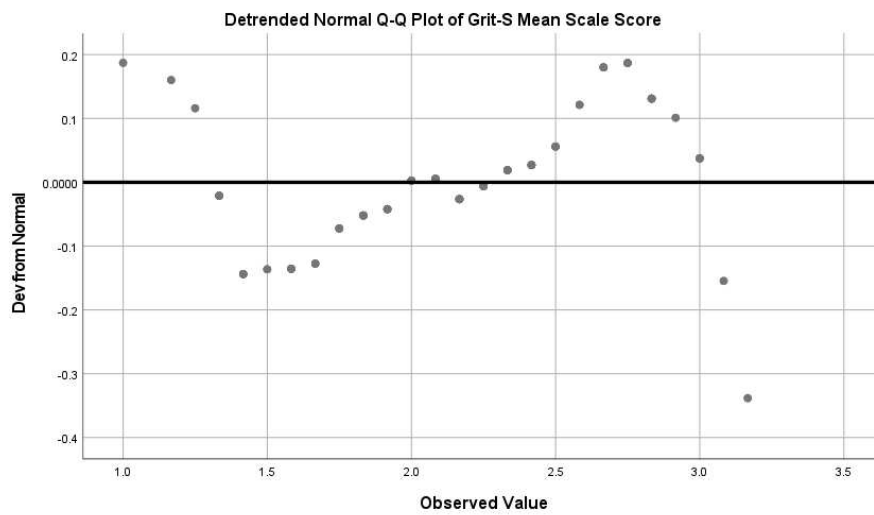Appendix B: Initial Distributions of Scores on the Measure

Figure B1

Grit Scores

Figure B2

Normal Q-Q Plot of Grit-S Mean Scale Score

75

Figure B3

Detrended Normal Q-Q Plot of Grit-S Mean Scale Scores

Detrended Normal Q-Q Plot of Grit-S Mean Scale Score

Figure B4

Grit-S Mean Scale Scores

Grit-S Mean Scale Score