THE CORRELATION BETWEEN SELF-DETERMINATION AND ACT SCORES FOR HIGH SCHOOL STUDENTS WITH DISABILITIES

by

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Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

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ABSTRACT

A significant gap exists between the graduation rate of students with disabilities and their nondisabled. The purpose of this quantitative correlation study was to determine the relationship self-determination had on college and career readiness using ACT scores of students with high incident disabilities. This study was guided by the following questions: (a) Is there a relationship between AIR Self-Determination Scale scores and ACT scores? (b) Is there a relationship between students’ capacity subscale scores on the AIR Self-Determination Scale and ACT scores? A convenient sample of thirty, twelfth grade students with disabilities in two suburban public high schools in the Lowcountry of South Carolina completed the pencil-paper form of the AIR Self-Determination Scale which was compared to their composite scores from The ACT. The correlation between self-determination and college and career readiness was analyzed using the Spearman’s rho to compare the raw scores from the American Institute for Research Self-Determination Scale and The ACT. Results from this study revealed no significant relationship between the American Institute for Research Self-Determination Scale scores and The ACT scores. No significant relationship was found between students’ self-determination capacity subscale and ACT composite scores. The results have important implications for school managers to provide students with disabilities additional access to curricular and strategies to become college and career ready. Future studies should include a larger sample size for broader generalization and should employ a mixed methods approach to offer both statistically significant quantitative data and qualitative data.

Descriptors: students with disabilities, high school graduation, dropout prevention, self-determination, truancy, college and career readiness, high school dropouts
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“I can do all things through Christ who strengthens me,” (Philippians 4:13, KJV)

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List of Abbreviations

ACT-American College Test
AIR-American Institute for Research
APA-American Psychological Association
ARRA-American Recovery and Reinvestment Act
CITI-Collaborative Institutional Training Initiative
ED-Emotional Disorder
ESEA-Elementary and Secondary Education Act
GED-General Education Development
ID-Intellectually Disabled
IDEA-Individuals with Disabilities Education Act
IDEIA- Individuals with Disabilities Education Improvement Act
IEP-Individualized Education Plan
IRB-Internal Review Board
LD-Learning Disabled
NCLB-No Child Left Behind
NDPC-National Dropout Prevention Center
OECD-Organization for Economic Cooperation and Development
OHI-Other Health Impaired
SLD-Specific Learning Disability
SLI-Specific Language Impairment
CHAPTER ONE: INTRODUCTION

Overview

This chapter discusses the challenges that society faces because of the high dropout rate of all students, which includes those with disabilities. This chapter also includes background information, problem and purpose statements, significance of the study, research questions, and definitions.

Background

Students who exit high school without a high school diploma limit their options for post-secondary careers as the demands for a more educated workforce increase (Freeman and Simonsen, 2015). Educational institutions must address factors that contribute to students making the decision to drop out of high school before earning a high school diploma. Schools need to find ways to support students who are thinking about dropping out of school. All subgroups that drop out of high school require attention. Students with disabilities are at a greater risk than their nondisabled peers for dropping out and typically lag behind in academics, and post-high school outcomes such as education, employment and social outcomes (Schifter, 2016).

This correlation study determined the relationship self-determination has on college and career readiness using The American College Test (ACT) scores of students with high incident disabilities. The premise is the educational setting, which fosters autonomy and competence, develops students who are equipped to meet the needs of the twenty-first century and graduate from high school with a diploma. Consequently, educational systems must take a more active role in providing accurate and precise research that will help stakeholders understand why some students exit high school before earning a diploma.
The consequences of some students making the decision to drop out of school negatively impact the nation. Overall, the dropout rate is declining; however, a significant disparity exists between nondisabled and students with disabilities (Nelson, 2006). The gap between disabled and nondisabled students is large enough that educators and other support staff must devise ways to lessen the gap.

Nationwide, only 69% of students earn their high school diplomas, which means 1.3 million students who enter high school do not graduate from high school on time. Also, 60% of high school graduates who participated in the American College Test (ACT) did not receive scores which indicates college readiness (Fowler et al., 2014, p. 19).

Incidentally, new demands to ensure that students are college and career-ready have led to educators and other stakeholders tracking students’ scores on standardized assessments such as the ACT. These scores are accepted by many colleges and universities worldwide. Students with disabilities face the added stress of meeting the normal expectations of high school, but when these students must also meet the criteria for standardized assessments, such as The ACT, they typically fall short of these criteria. Obstacles, such as these, can lead to students who feel a need to exit high school without a high school diploma.

The dropout rates for students with disabilities far exceed the national average for nondisabled students. Students with disabilities are one of the most vulnerable populations to become school dropouts and lack college and career readiness skills. These students are less likely to be employed than are nondisabled students and are less likely to earn a General Education Development (GED) diploma (Murray & Naranjo, 2008; Reschly & Christenson, 2006). In addition, students with disabilities enroll in 4-year colleges at a significantly lower rate
than do their nondisabled peers. Nineteen percent of students with disabilities enroll in 4-year colleges as compared to 40% of their nondisabled peers (Fowler et al., 2014). Students who do not earn a high school diploma or equivalency diploma face more challenges than peers who graduate with a high school diploma when it comes to succeeding in the global economy. As a result, it is important to have more students with disabilities exit high school with a diploma and being college and career ready. Thus, the consequences of leaving high school before earning a diploma significantly impact society.

The consequences of dropping out of school are severe for both nondisabled students and students with disabilities. These students face numerous challenges throughout life. High school dropouts encounter challenges, which include underemployment, unemployment, incarceration, and dependence on public assistance (Bear et al., 2006; Bridgeland, Dilulio, & Morison, 2006; Murray & Naranjo, 2008). However, these obstacles decrease extremely by the attainment of a high school diploma. Difficulties, such as the ones previously mentioned, contribute to a lower quality of life for students with disabilities. These students also deal with other challenges, which their disability conveys.

Factors, which contribute to the dropout rate of students with disabilities, are a low academic achievement, high absenteeism, grade retention, and low motivation (Bear et al., 2008). These challenges compound for them as they exit school without a high school diploma and college and career readiness skills that are inadequate. Such trials place a burden on society as well, particularly considering the country’s present economic status. Dropouts contribute less in federal, state, and local taxes than they receive in cash benefits, in-kind transfers, and correctional costs over their lifetimes (Reschly & Christenson, 2006). Investing in programs,
which support more students in graduating from high school with a diploma, can lessen the burden for the local community, the nation and global economy.

One element, which affects students and their level of success, is self-determination. Students who grapple with the possibility of dropping out of school need additional support to remain in school and to be able to obtain core academic content and skills that result in higher ACT scores, which indicates they are college and career ready. Some students who struggle with disabilities have the added pressure of dealing with their disability coupled with disengagement, which leads to truancy (Losen & Skiba, 2010). Typical events at school, such as unfair disciplinary consequences can lead to excessive absences, which may lead to truancy.

Truancy is another factor, which is detrimental to learning and academic achievement for students with disabilities. According to McCray (2006), truancy is the act of staying away from school without permission. Students with disabilities appear to be more susceptible than their nondisabled peers to the premise of truancy. Although truancy appears harmless, this type of behavior becomes serious and contributes to a student’s decision to drop out of school over time. Chronically absent students often face a greater chance of becoming high school dropouts than students who attend school regularly causing them to have fewer opportunities to become college and career ready. An increase in absences may also exacerbate their already poor academic performances (Gottfried, 2009). Students with disabilities suffer from attendance and academic problems more than do their nondisabled counterparts. Their results on The ACT may also be lower than their nondisabled peers. Spencer (2009) revealed that data from the National Longitudinal Transitional Study 2 showed that students with disabilities ages 13 to 17 tended to miss more days from school than did their nondisabled peers, and they had a higher failure rate.
School suspension is an additional predictor that influences dropouts. Students frequently suspended from school are at risk for academic failure because of missed instructional time and limited opportunities to learn (Losen & Skiba, 2010). Students with disabilities are more apt than are their nondisabled peers to struggle with maintaining appropriate behavior in the school setting. These students may require a variety of strategies to help them remain on task, demonstrate self-control, and become motivated to stay in school. Educational leaders have a responsibility to identify factors that contribute to suspension and develop interventions to deter students’ behaviors that lead to suspension. Frequent suspensions may decrease academic performance and damage the learning process to become college and career ready. Regardless of the types of absences, attendance plays a significant role in the attainment of a high school diploma. According to Gregory, Skiba, and Noguera (2010), suspended students may become less bonded than students who do not receive suspension as a disciplinary action to school, less invested in school course work, and less motivated to achieve academic success. These students may have a perception of alienation and disconnectedness, which leads to students becoming disengaged with school and less likely to demonstrate college and career readiness skills.

Understanding the adverse effects, which cause students to drop out of school, has lead stakeholders to create ways to counteract dropping out of school and to improving the educational setting for students with disabilities. More than 30 years ago, advocates began their fight for students with disabilities by establishing measures to allow more students with disabilities to attend school. In 1975, the U.S. Congress enacted Education for All Handicapped Children Act of 1975 (Pub. L. 94-142), which ensured civil rights and equal access for all children with disabilities. Public Law 94-142 stressed a free and appropriate education for students with disabilities (U.S. Department of Education (USDOE), Office of Special Education
Programs (OSEP), 2010b). Later, through the Individuals with Disabilities Act (IDEA, Pub. L. 108-446), students with disabilities were supported through programs and support for personnel teaching students with disabilities. IDEA supported research and training for teachers to increase the achievement level of students with disabilities. IDEA also “renewed national concern for accountability and assessments that improve results for students with disabilities” (USDOE, OSEP, 2010b, p. 9).

As mandates and amendments evolved, the No Child Left Behind Act (NCLB) of 2001 (Pub. L. 107-110) outlined and required the same goals of proficiency levels in math and reading for students with disabilities and their nondisabled peers. This act required students’ competency levels to meet standards to ensure students were adequately prepared to receive a high school diploma. According to the USDOE, OSEP (2010b), more students with disabilities graduated from high school. Since the 1996-1997 school term, the graduation rate for students with disabilities increased 16 points, and the dropout rate for students with disabilities decreased by 21 points. In addition, the rate of students with disabilities who enrolled in postsecondary education increased from 14.6% in 1987, to 31.9% in 2005.

The concerns for accountability grew from the national level to the state levels. States were required to outline indicators to improve outcomes of children with disabilities (Prince, Katsiyannis, & Farmer, 2013). The heightened level of accountability caused school districts to take a closer look at the needs of students with disabilities. Later, The Civic Marshall Plan, a more recent federal initiative, set goals, which increased the graduation rate to 90% by 2020 and intensified the school graduation rate for schools. In 2012, schools were required to respond immediately to the dropout crisis by implementing effective dropout prevention programs (Pyle & Wexler, 2012).
Accountability for all students is an expectation nationally and locally. “College and career readiness has emerged as a major focal point in the educational accountability system to reduce the 30% to 60% of underprepared high school graduates” (Lombardi, Conley, Seburn, & Downs, 2012, p. 163). Policies to address the knowledge and skills, which students need to be successful for college or career, are increasing. In addition, dropout prevention programs are specifically designed to support students with disabilities through the development of self-determination skills to increase the number of those students who graduate from high school on time and have the necessary skills to be college and career ready.

Students who feel a sense of relatedness, competence, and autonomy can assume control and responsibility for their actions. These self-determined behaviors provide a solid foundation for future success for students. These students are motivated to learn and make choices, which help them remain in school. Konard, Fowler, Walker, Test, and Wood (2007) linked self-determination status to the attainment of more positive academic outcomes.

Self-determination helps students stay motivated even in the face of insurmountable odds. Self-determined students are more involved in planning their education goals and transition to post-secondary education and careers. These self-determined students are aware of their skills and use resources available to them to control their lives and make choices, which lead to success. These students are actively engaged in monitoring their short and long-term goals to improve academics, so they can accomplish things for the future plans (Wehmeyer et al., 2012).

Similarly, McGuire and McDonnell (2008) suggested that outcomes consisted of more positive employment, recreation, and independent living. It is evident that students who can make choices about their lives and transfer self-determined skills across settings, both academically and socially, experience more positive post-secondary outcomes. As a result,
educators may teach strategies, such as decision making, problem solving, goal setting and attainment, self-management, and self-advocacy to ensure students can meet standards to become college and career ready.

Self-determination skills serve as a predictor of positive academic results for both disabled and nondisabled students on tests such as the ACT. Self-determination also concentrates on improved post-school outcomes (Stang, Carter, Lane, & Pierson, 2009). These skills work best when academically and socially integrated. These skills are less effective when used in isolation. A study comprised of three high schools in a large urban district in the Southeast United States with 78,000 students investigated the association between inclusion and community activities, self-determination skills in active Individualized Education Plans (IEP) and the use of selected self-determination skills. The study revealed that students who were in a more inclusive environment demonstrated self-determination skills more often across various settings, which fostered post-school success (Hughes, Cosgriff, Agran, & Washington, 2013). Students who possess such skills can advocate for themselves and maneuver through the day-to-day activities required in school and the community.

Findings from Becker and Gable (2009) exposed a significant relationship between grade point average, attendance, retention, and academic success. Although definitive causal evidence is still pending, the acquisition of self-determination skills may play a vital role in improving outcomes for students with disabilities. Stang et al. (2009) encouraged the development of follow-up studies to underscore the critical need to increase the involvement of students with disabilities in self-determined behaviors, which promotes success. Self-determination interventions, which help students manage the school environment and academic success, as well as function in the community, can lead students to become college and career ready and
productive citizens. Students who exhibit these self-determination skills are more likely to achieve academic and social success.

Increased accountability for the achievement of all students has also broadened the discussion regarding the success rate of students with disabilities in school. According to U.S. Department of Education (2010a) Blueprint for Reform of the Elementary and Secondary Education Act (ESEA, 1965), “Every student should graduate from high school ready for college and a career” (Fowler et al. 2014, p. 20). Many factors influence graduation rate, dropout rate, and college and career readiness of students with disabilities. Knesting’s (2008) qualitative study uncovered that beyond the demands of the classroom setting, staying in school was challenging for many students. The current demands and expectations of the educational system add pressure on students.

IDEA helped the United States become the leader in giving students with disabilities access to the regular curriculum and interventions. Access to the general curriculum provided highly qualified teachers, high standards, and rigor for academic achievement and knowledge acquisition and production (USDOE, OSEP, 2010a). Participating in the regular curriculum also raised performance expectations for students with disabilities. In addition, IDEA increased the need for parental involvement and helped provide more frequent communication on student progress to parents. Educators are responsible for developing strategies that could assist and enable students to make decisions to remain in school through the implementation of effective dropout programs (Knesting, 2008; Somer et al., 2010). In response to the effect the dropout rate has on society, a combination of interventions can help reduce the dropout rate, especially for students with disabilities. At whatever point students leave school, strategies to be college and career ready are a requirement (Daggett, 2013).
Problem Statement

Typically, individuals who lack a high school diploma scored poorly on college and career readiness tests. These students also lack the skills needed to compete in the workforce. Records indicated that about 1.2 million students drop out of school each year (Alliance for Excellent Education, 2011). The decision to drop out of school prevents students from reaching their fullest potential. Dropouts face many obstacles and struggle throughout adulthood. Students who dropped out of high school experienced negative outcomes such as low-end jobs, high unemployment, faced restricted access to postsecondary education, encountered limited opportunities for independent living, as well as suffered restricted participation in their communities (Zhang & Benz, 2006). Incidentally, dropouts tend to disconnect from society and engage in negative activities. Multiple negative outcomes determine whether dropouts can maintain appropriate skills needed to interact with peers and adults and their future livelihood.

Tsoi-A-Fatt (2010) asserted the nation lost capital because of the reduced earning potential of the undereducated segment of the population.

Essentially, students with disabilities make up a significant portion of the country’s dropout population. Thirty percent of students with disabilities were estimated to have dropped out of high school in 2010 (American Psychological Association [APA], 2012). More recently, “The graduation rate for students with disabilities hit 61.9% in 2012-2013, an increase of 2.9 percentage points since 2010-2011; however, this was still, nearly 20 points behind the national average (DePaoli et al., 2015, p. 7). Because of such a high dropout rate and discrepancy among students with disabilities as compared to their nondisabled peers, it is essential that interventions lower the dropout rate and increase their achievement level for students with disabilities to meet
the demands of colleges and careers. This group of students needs specific interventions to support them to continue their education to become college and career ready.

Ricard and Pelletier (2016) proposed the three basic psychological needs, such as autonomy, competence, and relatedness, prompted students to demonstrate full autonomy and choice. These three innate needs work simultaneously when a person possesses a high level of self-determination. This self-determined individual understands how to attain external and internal outcomes, connects with others, and can self-initiate and self-regulate his or her actions (Deci, Vallerand, Pelletier, & Ryan, 1991). Because of these self-determined behaviors, engagement in school leads to students remaining in school to become college and career ready. Progress continues in research to promote self-determination but do not focus exclusively on self-determination and college and career readiness to sustain high school completion for students with disabilities. Herron and Marton (2015) stressed that teaching self-determination skills, such as goal setting, choice, making problems solving, and self-evaluation, keeps students in school and empowers them to control their attainment of college and career readiness skills.

Few studies concentrate on students with disabilities and achievement based on college and career readiness. As a result, a gap in literature exists on strategies, such as self-determination, to increase career and readiness skills for students with disabilities. The problem is a large discrepancy exists between college and career readiness skills and the graduation rate for students with disabilities and their nondisabled peers. Students with disabilities leave high school without high school diplomas at a higher rate than do their nondisabled peers, and they are not college or career ready.
**Purpose Statement**

This purpose of this quantitative correlation study was to determine the relationship self-determination has on college and career readiness of students with high-incident disabilities using ACT scores and the AIR Self-Determination Scale which included the overall self-determination level and the capacity subscale. The overall self-determination level consists of both subscales, capacity and opportunities to self-determine. The capacity subscale describes what a student does and how he feels. The variables were the ACT scores, the overall self-determination level and the capacity subscale. The high-incident categories included students with emotional disorders, learning disabled, other health impairment, intellectual disabilities, and speech or language impairments. The participants consisted of 30, twelfth grade students with disabilities in two suburban public high schools in Lowcountry of South Carolina. In this design, the researcher did not attempt to control or manipulate the variables. This study used self-determination and ACT scores as the bivariate correlation variables.

**Significance of the Study**

Students with high incident disabilities often experience low rates of school completion and a daunting pathway toward a productive lifestyle (Archambault, Janosz, Morizot, & Pagani, 2009; Eisenman, 2007). Incidentally, these students’ disabilities make it difficult to stay on track for graduation. These students encounter many challenges because of lack of self-determination, which affects their perception of their strengths and weaknesses as well as their ability to choose to remain in high school. “Over the past 20 years, students with disabilities experienced worse post-high school educational, employment and social outcomes than their nondisabled peers” (Schifter, 2011, p. 410). Some categories of disabilities experience more challenges than do others based on the trait imparted by the specific disability. Pyle and Wexler (2012) wrote,
“Notably, each year about 40% of students with learning disabilities and 65% of students with emotional disabilities drop out” [of school] (p. 283).

Examining predictors of dropout are also important and may help students remain in school and become college and career ready. It is imperative that the dropout rate decreases and the graduation rate for students with disabilities increases to reduce the high costs dropouts present to society, their families, and themselves (Reschley & Christenson, 2006). In the 21st century, all students must be college and career ready to compete globally. According to Brand, Valent, and Danielson (2013), “All Americans must have a broader range of knowledge, skills and abilities than ever before to meet the demands of the 21st-century global economy” (p. 1). The validity of society is its citizens’ ability to be productive contributors to economic growth and the workforce. Findings in this study helped to counteract some obstacles, which lead students to drop out of high school, and described additional interventions to help increase college and career readiness. In turn, more students will have a positive impact on the country and the global economy.

Implementing effective interventions from Institute of Education Sciences and the National Dropout Prevention Center (NDPC) can offset predictors, which contribute to the decision to drop out of school. These interventions can enhance efforts to increase college and career readiness, increase the graduation rate, and decrease the dropout rate. Brand et al. (2013) added that despite the improvements in the college and career readiness of students with disabilities, a great deal more work still needs to be done. This population requires protection and support in the educational environment.

Interventions are optimum in multiple settings. Hupfeld (2007) believed that dropout prevention programs within schools had stronger holding power and were more likely to
influence students to make a choice to remain in school. Similar factors and studies were examined previously regarding the low completion rate of students with disabilities. A recent study questioned the applicability of the self-determination construct to students with disabilities and impact on completion of high school (Shogren, Wehmeyer, Palmer, Rifenbark, & Little, 2015).

However, a gap in the literature exists on the relationship self-determination has on college and career readiness and the graduation rate of students with high-incident disabilities. The results from this study provide information to support literature that high levels of self-determination skills may counter identified dropout predictors, reduce the dropout rate for students with disabilities, and increase college and career readiness. Previously, Washington, Hughes, and Cosgriff (2012) added literature and described how twelfth grade students who demonstrated self-determination and advocacy in their study helped the students to stay on target for graduation. This current study adds to the literature on self-determination and satisfies the gap in the literature on the college and career readiness literature, particularly for students with disabilities.

**Research Questions**

This study was designed to answer the following questions:

**RQ1:** Is there a relationship between the overall AIR Self-Determination Scale scores and ACT scores?

**RQ2:** Is there a relationship between students’ AIR Self-Determination Capacity subscale and ACT scores?
Definition of Key Terms

1. American College Test (ACT)-American College Test (ACT) is a comprehensive readiness assessment that measures core content area skills acquired before or during high school (Maruyama, 2012).

2. Absenteeism-Absenteeism refers to the number of days students miss class (Reschly & Christenson, 2006).

3. Academic Engagement-Academic Engagement is the extent to which students are motivated to learn and do well in school and time on task (Appleton, Christenson, & Furlong, 2008).

4. AIR Self-Determination-AIR Self-Determination Scale provides information on students’ capacity and opportunities to self-determine (Wolman, Campeau, DuBois, Mithaug, & Stolarski, 1994).

5. AIR Self-Determination Capacity subscale-The capacity subscale refers to questions relating to what a student does to promote their self-determination. The questions refer to the “Things I Do” and “How I Feel” (Herron & Martin, 2015).

6. Career Readiness-Career Readiness refers to the ability to gain employment with competitive and livable salaries with opportunities for career advancement and in a growing and substantial industry (Fowler et al., 2014).

7. College Readiness-College Readiness is entering college ready to complete credit-bearing courses (Fowler et al., 2014).

8. Dropouts-Dropouts are considered students, age 16 through 24, who are not enrolled in school and have not earned a high school credential, either a diploma or an
equivalency credential such as a GED certificate (USDOE, National Center for Education Statistics, 2013a).

9. Individualized Education Plan—*Individualized Education Plan (IEP)* is a written statement for each child with a disability that is developed, reviewed and revised in a meeting each year, which must include special education services, transition services, and educational goals to meet the needs of a student’s disability (USDOE, OSEP, 2013b).

10. Self-Determination—*Self-Determination* includes skills, knowledge, and attitudes that enable a person to live a quality life and assumes primary control and responsibility for a myriad of life activities (Stang et al., 2009).

11. Students with Disabilities—*Students with Disabilities* are children or youths from 3 through 21 years of age who are considered to have a disability under IDEA (Pub. L. 108-446) if the child or youth meets the eligibility criteria in any of the following specific areas and needs in special education categories and related services: Autism Spectrum Disorder, Deaf/Blind, Deaf/Hard of Hearing, Emotional and Behavioral Disorder, Intellectual Disability (mild, moderate, severe, profound), Orthopedic Impairment, Other Health Impairment, Significant Developmental Delay, Specific Learning Disability, Speech-Language Impairment, Traumatic Brain Injury, and Visual Impairment. After assessments and other measures are completed, a group of qualified professionals and the parents of the child (i.e., the Eligibility Team) determine if the child has a qualified disability. Then, the educational needs of the child are addressed (USDOE, OSEP, 2013b).
12. Suspension—Suspension refers to the relatively short-term removal of students from school for a disciplinary infraction (Skiba & Sprague, 2008).
CHAPTER TWO: REVIEW OF THE LITERATURE

Overview

This chapter identifies the types of students who drop out of school, examines the reasons those students drop out of school, describes the effects dropouts have on society, and explains the self-determination theory. Competence, relatedness, and autonomy drive the self-determination theory. These characteristics accredit positive academic and social outcomes, which increase college and career readiness for students with disabilities. The overview of the theoretical framework guides this study.

Theoretical Framework

The conceptual framework for this study builds on the self-determination theory, a study of human motivation and personality focusing on basic psychological needs such as competence, autonomy, and relatedness, which can motivate individuals to succeed (Ryan & Deci, 2000). Self-determination includes skills, knowledge, and attitudes, which enable an individual to live a quality life and assume primary control and responsibility for the many life activities (Stang et al., 2009). These skills are typically positively linked to an individual’s ability to seek out success. Some of the self-determined skills include goal setting and attainment, problem-solving, decision making, self-regulation, building mutually supportive relationships, and the independence to initiate and adjust advocacy skills. These skills allow individuals to assume responsibility for life choices (Moore & McNaught, 2014; Smith, 2013). Self-determination skills differ based on individual perceptions of the definitions. Barge (2011) clarified and described characteristics of self-determined people as possessing the following:

[a] awareness of personal preferences, interests, strengths and limitations, [b] the ability to differentiate between wants and needs, [c] the ability to consider multiple options and
to anticipate consequences for decisions, [d] knowledge that allows one to evaluate a situation based on previous outcomes and revise decisions accordingly and [e] independent performance skills and the ability to adapt to changes. Consequently, self-determined people possess the skills needed to live productive and fulfilling lives (p. 4).

Similarly, Smith (2013) suggested that self-determined people take positions with their personal beliefs, exhibit leadership skills, and display ownership of their behaviors. These behaviors focus on the capacity subscale of self-determination. The capacity subscale describes the things students do and how they express their feelings to successfully complete high school and become college and career readiness.

Self-determination facilitates students’ willingness to contribute positively to school and community. As these students become more confident in their ability, they have healthier self-esteem and can think more critically about their decisions regarding completion of high school. The application of self-determination theory to education concentrates on promoting students’ interests in learning, increases the value placed on education, and heightens students’ confidence in their capacities and attributes (Deci et al., 1991).

Students must be confident in their abilities to succeed in the educational setting. Students with a strong self-determination capacity demonstrate behaviors needed to maneuver through the educational setting proficiently. Students with self-determined behaviors demonstrate a more positive attitude toward school and display more self-confidence. In turn, the students’ school experiences raise their ability to focus on higher academic performance on assessments such as the ACT. The ACT measures students’ levels of college and career readiness and their achievement correlated to future success.
A study comparing the involvement of students in educational planning using self-determination strategies found that self-determination was related to successful performance, particularly with persons with disabilities, and self-determination was what set them apart from their counterparts (Washington et al., 2012). Students with disabilities struggle to meet the daily expectations of society. In addition, Anctil, Ishikawa, and Scott (2008) showed that self-determination attributed to the success of college students with disabilities. Their study used a model of academic identity development for college students with learning disabilities and an integrated model using self-determination, which discovered a “broad range of positive outcomes” and “a better quality of life” (Anctil et al., 2008, p. 165) for the college students with disabilities. Long-term changes to the students’ behaviors affect their competence in the ability to master challenges. Similarly, the quantitative phase of a study, which examined self-determination and success of 2-year college students with disabilities, backed up other studies that indicated students with more positive outcomes had higher degrees of self-determination (Jameson, 2007).

Self-determination motivated student success and linked attainment to earning a high school diploma and being college and career ready. Conversely, students who do not have opportunities to apply self-determination skills are more likely to become passive, dependent, and feel incapable of making choices and decisions (Fielder & Danneker, 2007). A lack of opportunities also impacts the students’ self-determination capacity level. Studies show the benefits of self-determination skills have on students’ success. If students do not learn to incorporate these skills in their day-to-day lives, they will be in danger of mindlessly making decisions without the support of foresight. Negative experiences created low self-determination skills (Jameson, 2007). This factor swayed students’ decision to drop out of high school.
The federal government began to investigate how self-determination affected students with disabilities in the early 1990s. The United States Department of Education Office of Special Education recognized the need to enhance self-determination skills in students with disabilities (Fielder & Danneker, 2007). Encouraging students with disabilities to become more self-determined is especially difficult when students face added physical and mental challenges. Further emphasis placed on postsecondary planning for students with disabilities resulted in the reauthorization of the Education of All Handicapped Children’s Act (Pub. L. 94-142), which became the Individuals with Disabilities Education Act (IDEA, Pub. L. 102-119).

The development of self-determination skills has a prominent role in educational policies, services, and support systems for students with disabilities because many youths with disabilities lack these critical skills. As a result, students who lack these skills struggle to maintain viable employment. Research shows this lack of skills contributes to poor outcomes for these young people (Stang et al., 2009). The onset of IDEA directed practitioners to implement services and supports to help transition students with disabilities successfully to life after high school (Solberg, Howard, Gresham, & Carter, 2012). Such services include self-determination components, which enable students to possess the skills, attitudes, and drive to become a productive person in society (Field, Martin, Miller, Ward, & Wehmeyer, 1998). This same self-determined drive could lead to better results on the ACT, which predicts college and career readiness.

Promoting self-determination has become a best practice in special education and can be linked to goal attainment and more positive outcomes for youth with disabilities (Wehmeyer et al., 2012). Educators and other support staff must work together to help students reach their full potential. The impact self-determination has on decreasing the number of these students who
drop out of school makes it essential for schools to use dropout prevention programs, which promote the development of self-determined behaviors. Washington et al. (2012) stressed the importance of addressing factors, such as self-determination, in increasing the rate at which students succeeded at attaining more positive post-secondary outcomes. The direct correlation between self-determination and post-secondary choice, whether it be college or career, is one that is worth further study.

Educators must understand the definitions of college and career readiness. College readiness describes high school students as being ready to enter college ready to complete credit-bearing courses (Fowler et al., 2014). The ACT measures students’ ability to understand the material they covered in school. The ACT outlines benchmark scores that indicate the probability that students may enter college ready to complete credit-bearing courses. The benchmark scores for the ACT, which determine the probability for students who are prepared to complete credit-bearing courses are English, 18; math, 22; reading, 22; and science, 23 (ACT, 2015). Similarly, career readiness standards include possessing the advanced skills needed to gain employment with a competitive and livable salary along with opportunities for career advancement in a growing sustainable industry (Fowler et al., 2014).

In addition, a career-ready person connects education and employment to achieve a fulfilling, financially-secured, successful career. These connections are aligned with students’ high level of self-determination capacity. Herron & Marton (2015) reported that high scores for self-determination capacity predicted higher student grade point averages, lower absences, and lower disciplinary encounters in school. This individual possesses the academic and technical knowledge and skills along with employability knowledge, skills, and dispositions (Daggett, 2013). College and career readiness skills are paramount whether a person plans to enter
college, the military, or the workforce. High standards, self-determination, and perseverance are requirements for students to compete in a global economy.
Related Literature

Students Who Drop Out of School

Self-determination affects the students’ confidence and resilience needed to support high school completion and college and career readiness. Earlier research indicated deficits in self-determination skills might contribute to disappointing graduation outcomes and students with competitive and livable salaries. As a result, the nation faces stagnant social and economic growth because of a disproportionate number of high school dropouts who lack the skills needed to support themselves through challenges faced in society. Dropouts are categorized as:

- 16 through 24-year-olds who are not enrolled in school and have not earned a high school credential (either a diploma or an equivalency credential such as a General Educational Development [GED] certificate). In this indicator, status dropout rates are estimated using the Current Population Survey (CPS) and the American Community Survey (ACS) (Aud et al., 2013, p. 204).

In the past, inconsistent calculated graduation rates affected the number of reported graduates. NCLB and more current legislation influenced the consistent calculation of graduation rates across the nation. Legters and Balfanz (2010) discussed the development of precise measuring of the dropout rate and how it evolved into a more comprehensive manner by tracking enrollment data through student cohorts. The number of diploma recipients for a given class correlated with the eighth-grade enrollment figure four years before graduation. Now, all 50 states record the dropout rate using the cohort formula. In addition, data identify struggling schools with the highest dropout rates and the lowest graduation rates (Legters & Balfanz, 2010).

The implementation of NCLB brought about a more unified method of calculating the graduation rate as well as more stringent performance requirements. As a result, the government
excluded GED recipients from the graduation rate and considered them to be dropouts because of the poor performance of recipients (Heckman & LaFontaine, 2010). Therefore, it is imperative that more students obtain a high school diploma and become college and career ready to become a productive member of society. Consequently, the new graduation demands and higher standards for college and career readiness resulted in increased obstacles for students with disabilities. These students struggle with making appropriate decisions regarding their academic needs. Self-determination can alleviate some of the factors that contribute to students’ poor decision-making and choices about academics, college, or career.

To meet the needs of students, 34 states and the District of Columbia received waivers through the Elementary and Secondary Act (ESEA, 1965), which offered flexibility to states regarding accountability and improvements for education, which differs from NCLB by preparing students for college and a career. Although these states received flexibility, the USDOE emphasized all states be required to calculate and report graduation rates by the 2008 regulations (Alliance for Excellent Education, 2011). However, many stakeholders showed interest in the impact these waivers had on all students to include students with disabilities. Stakeholders questioned if the flexibility increased access to college and careers and produced higher achievement levels. The stakeholders also questioned if the graduation outcome for all students would regress or increase. Consequently, school officials and other stakeholders challenged the integrity of what states were reporting. Hence, students are accountable for mastering standards and graduating on time. In addition, the focus needs to determine if the graduation gap between students with disabilities and the nondisabled will continue to show a significant difference.
In 2012, states looked at the impact state-required exit exams had on graduation and whether these exams conflicted with course requirements. Nevada, Arizona, Alabama, Georgia, and South Carolina phased out exit exams and now use End of Course Tests, the ACT, or tests, which give information regarding students’ aptitude for college or jobs (Barrett, 2013). All Americans must take an active role to ensure that students graduate with a high school diploma and are college and career ready. This initiative takes the collaborative efforts of all educational stakeholders and must include the self-determination strategies noted to obtain results.

The high school dropout rate reached a pivotal point because of many students lacked the qualifications to compete in a global society. In October 2009, approximately 3.0 million, 16 through 24-year-olds were not enrolled in high school and had not earned a high school diploma or alternative credential. These three million accounted for 8.1% of the 38 million noninstitutionalized civilians, 16 through 24-year-olds who lived in the United States. Among all individuals in this age group, the dropout rates trended downward from 14.6% to 8.1% between 1972 and 2009 (Aud et al., 2013).

More nondisabled students enrolled in 4-year colleges than do students with disabilities. Only 19% of students with disabilities enrolled in 4-year colleges and universities. Students with disabilities are more likely to attend 2-year colleges or vocational schools (Fowler et al., 2014). The USDOE, OSEP (2013a) reported in the 20062007 academic school year overall 25.7% of students with disabilities dropped out of high school. The high incident categories such as students with emotional disorders dropped out at a rate of 44.8%, learning disabled 24.5%, other health impairment 23.2%, intellectual disabilities 22.2%, and speech or language impairments 20.7%. Discrepancies also exist among disability categories. Because of variation in the disability categories, different strategies are vital to meet individual students’ needs. In addition,
self-determination can differentiate interventions to meet the needs of students with disabilities for college and career.

Corresponding studies determined the association of dropout factors and the dropout rate for categories of disabilities. Kortering and Christenson (2009) asserted that students identified as high-incident conditions, such as specific learning disabilities, behavior or emotional disability, other health impairment, or milder levels of intellectual deficiencies, had a difficult time completing high school because of multiple factors. Murray and Naranjo (2008) suggested that students with specific learning disabilities had a dropout at a rate of 24%, which far exceeded the national average for students with disabilities. According to Wagner (2003), The National Longitudinal Transition Study-2 also provided a national view of the rate of high school completion for students with disabilities. The National Longitudinal Transition Study’s findings were similar to earlier results, which indicated that students with emotional disabilities had the highest dropout rate followed by students with learning disabilities. The National Longitudinal Transition Study-2 also indicated that students with disabilities who entered college and received services for their disabilities from college had a 35% graduation rate from college as compared to 55% of their nondisabled peers (Fowler et al., 2014). These data are further proof of the urgency to work to provide support for students to ensure high school graduation.

Students who drop out come from diverse backgrounds coupled with debilitating factors, which contribute to the decision to leave high school before obtaining a high school diploma. Current research signaled variations in the dropout populations based on ethnicity, gender, and socio-economic status, thus impacting this growing problem. Fall and Roberts (2012) drew attention to the ethnic groups, gender, and socio-economic status in their research on the theories of school dropouts. Incidentally, the breakdown of students into these subgroups makes the
synthesis of information easier. Additional factors discussed in Fall and Roberts’s findings were that dropouts usually came from poor or single parent households where parents did not graduate from high school or from families in which at least one sibling had dropped out of school.

Another predictor of high school dropout is students who experience academic, behavioral, and social difficulty. Legters and Balfanz (2010) identified attendance and course performance data predicted the likelihood that students would drop out of school. These researchers showed factors that affected the dropout rate from various aspects. Their findings supported the premise that multiple reasons existed why students decided to leave school and not meet college and career readiness standards. Hupfeld (2007) added the characteristics of students who dropped out of school were from a low-income family, were a minority, had limited English ability, had learning or emotional disabilities, and were over-age for the grade level. Self-determination can help these students overcome factors that may hinder their success in completing high school. Cohen and Smerdon (2009) contended that ninth graders who exhibited a higher rate of course failure (i.e., a decline in tests scores and an increase in behavior problems) were high-risk candidates for leaving school without a diploma. Such influences may also be attributed to adolescent changes physically, socially, and emotionally. In addition, these factors may affect the students’ ability to demonstrate readiness for college and career as indicated on the ACT.

Parallel to other findings on students who drop out of school, Legters and Balfanz (2010) listed dropouts as students who experienced a disruptive family event, were homeless, had children themselves, faded out of school, or were pushed out because of school climate. Schools must be equipped to meet the needs of all students who enter their building. All stakeholders must understand how self-determination impacts student motivation and achievement. As a
result, students need additional tools to meet ACT standards, which reflect college and career readiness standards.

Students’ overall self-determination level and self-determination capacity subscale can offset predictors of dropout. The use of strategies, such as decision-making, problem-solving, goals setting, and attainment of skills, is essential to promote the graduation of all students. In another study, key variables, such as attendance, cultural/ethnic background, first language, learning disabilities, socioeconomic status, school engagement, relationships, and school class size, were identified as powerful predictors of high school dropouts (McIntosh, Flannery, Sugai, Braun, & Cochrane, 2008). In this study, variables discussed earlier affected the students’ transition period and their dropout rate. In addition, links between critical student variables of academic skills and problem behavior influenced completion of high school and students’ ability to be college and career ready.

Factors that Affect College and Career Readiness

Students’ reasons for dropping out of high school vary from student to student. No single factor can influence a student’s decision to drop out of school. Dropping out of school appears to be a function of multiple factors across many domains, which may interact with each other (Hupfeld, 2007). Typically, researchers focused on individual, family, and school risk factors. Such individual factors included gender, disability, socioeconomic status, ethnicity, poor academic skill, emotional and behavioral problems, and poor social skills (Murray & Naranjo, 2008). The acquisition and use of self-determination skills can minimize factors for students who contemplate dropping out of high school. These skills can also give students knowledge on how to seek assistance and use their strengths to overcome barriers.
As discussed previously, students with disabilities have a higher dropout rate from high school and lack self-determination skills, which could increase their confidence to maintain persistent goals to obtain a high school diploma. Research showed students with disabilities had more difficulties in obtaining a high school diploma whether they were visible or went unnoticed. Kishore and Shaji (2012) conducted a study that examined reasons for high school dropout such as physical disorders, mental retardation, child labor (i.e., employment), and school related issues. Findings denoted and confirmed other studies that students dropped out of high school for multiple reasons, such as school barriers and socioeconomic status, and ethnicity and gender overlapped between school and family issues. Students with physical impairments noted obstacles to mobility affected their attendance. Ultimately, their conditions were severe enough to keep them from attending school. In addition, when their equipment was inoperable, their attendance was also affected. The students who possessed some form of mental disabilities stated the condition was undetected and after repeated failure on exams, although they were not retained, led to truancy and finally a refusal to go to school (Kishore & Shaji, 2012). In addition, the lack of ability to cope with the mainstream curriculum further increased the reluctance to attend school. It is imperative that these students learn to become self-determined to reach an appropriate level of success to become college and career ready.

**Absenteeism**

A primary factor attributed to students’ dropping out is absenteeism. When a student is not present for instruction, he or she misses key information. The more days missed created gaps in learning. Attendance is a focus nationally. Researchers explained, “No Child Left Behind legislation emphasizes the importance of attendance as an indicator of adequate yearly progress related to elementary and middle school accountability” (Spencer, 2009, p. 309). Frequent
absences from school not only decrease learning and academic achievement but also exacerbated risk factors for students with disabilities. Consequently, Gottfried (2011) indicated, “Being absent from school is documented as having ramifications for both current and future school outcomes. School attendance in the early years of education is crucial during the formative period” (p. 148).

Typically, students are eager to attend school in the early grades. This momentum must continue throughout middle and high school as well. The Cradle to College and Career initiative advocated 21st Century readiness for every student from birth to college and career and improved college and career for students with disabilities simultaneously with their nondisabled peers (Fowler et al., 2014). Goal setting is an element of self-determination theory that can aid in meeting attendance requirements with the chance of becoming college and career ready.

Researchers linked students’ attendance to their academic performance. As students mature, they can be in control of setting goals to attend school. The utilization of goal setting is an area of self-determination that can increase student attendance, achievement, and the graduation rates for all students. Findings from the Gottfried (2009) study, which focused on both excused and unexcused absences, revealed a negative association between the number of days missed and academic performance. Repeated studies on absenteeism disclosed similar findings. In a later study, Gottfried (2011) supported previous findings and wrote, “For any given number of missed school days, students with increasing higher rates of unexcused absences tended to have worsened negative academic outcomes compared to their peers with increasingly higher rates of excused absences” (p. 151).

Missed instructional time affects students’ achievement and impedes them from becoming college and career ready. Regardless of the type of absences, students receive fewer
instructional hours and perform poorly on exams such as the ACT. Balfanz and Byrnes (2006) indicated results of a study on absenteeism and math performance showed a 20% difference in the success rate of students who had a 60% attendance rate as compared to students who attended school each day.

Attendance aligned to the dismal reports about students who were not meeting the ACT threshold (Maruyama, 2012). Students shared common beliefs with researchers. A study asked dropouts their reasons for dropping out, 43% of the students corroborated that missing too many days and being unable to catch up contributed to their decision to drop out of high school (Hupfeld, 2007). Fostering environments, which increase students’ interests in learning, can assist in students’ willingness to make additional efforts to attend school and receive the amount of instruction needed to be college and career ready.

Absenteism goes beyond missing instruction and falling behind with academics. Marvul (2012) added that chronic absentees were a precursor to dropping out of school and affected individual’s ability to obtain 90% of the jobs that require a high school diploma. In addition, these dropouts have a small chance of leading economically productive lives. Educational leaders must have innovative ways to address attendance problems within their schools. Nonattendance shows the beginning of disengagement from school and constitutes a reliable predictor of failure to complete high school, especially in the early grades. Consequently, students with disabilities must cope with their exceptionalities and obstacles, such as absenteeism, to earn a high school diploma.

Students with learning disabilities and behavior problems missed 15% to 20% of the instructional time because of absences (Spencer, 2009). Students who struggle to attend school deal with problems at home and in the community. Attendance warning signals should be
established in the elementary schools and transferred throughout the middle and high schools, so that interventions may increase the attendance of students with chronic absenteeism. Gottfried (2011) validated Spencer’s (2009) assertion regarding the importance of attendance in elementary school and stressed that high school dropouts could be identified by their previous attendance patterns in elementary school, particularly as early as fifth grade. Students who can set attendance goals and feel they can control circumstances, which deter them from attending school, demonstrate the capabilities to use their self-determination skills to conquer attendance issues. The more instructional time received may increase the knowledge and skills students need to perform well on The ACT.

**Out of School Suspension**

Out of school suspension, such as absenteeism, negatively affects the academic performance of students and negatively impacts their willingness to remain in school. Students’ perception of the schools’ efforts to facilitate school involvement influenced their decisions to finish high school. The researchers insisted, “Disengagement from school and academic failure are perhaps the most deleterious consequences of exclusionary discipline” (Vincent, Sprague, & Tobin, 2012, p. 69). The instructional loss prevents students from progressing academically and socially, thus adding to the dropout problem. Schools have the responsibility to implement interventions for these students to gain a high school diploma and gain the tools to become college and career ready.

Lee, Cornell, Gregory, and Fan (2011) revealed that out of school suspension was the most widely used form of discipline in the United States. The suspension rate correlated with the dropout rate. Such practices “perpetuate a school climate perceived as harsh, punitive and rejects students,” (Lee et al., 2011, p. 168). Suspensions are a punitive type of discipline that does not
address the needs of these students. Ultimately, the treatment of students influenced their motivation to remain at school. Christle, Jolivette, and Nelson (2007) added, “Schools that rely on exclusionary discipline practices such as suspension may be impeding the education progress of students, perpetuating the failure cycle. Students excluded from school have fewer opportunities to gain academic skills and appropriate social behaviors” (p. 333). Administrators need to examine suspension practices and their effects on students’ outcomes carefully. Such practices could make it difficult for schools to meet their goals of having all students become college and career ready. Without sufficient instructional time, students lack the content to meet expected benchmarks on the ACT.

The frequency and historical pattern of suspensions shape students’ attitudes and their perceptions of the school. Suspension could be the most significant reason that students drop out of school. Suh, Suh, and Houston (2007), in their longitudinal study on the most significant risk factors leading to the decision to drop out of school, provided evidence that suggests if a student had a prior history of suspension, the likelihood that the student would drop out was increased by 78%. Consequently, the correlation between the number of suspensions and the dropout rate should lead stakeholders to reevaluation policies and practices when dealing with discipline. Schools need to revisit ways to engage students to learn to counteract the deficiencies that produce low ACT scores.

In some cases, suspensions are necessary. Consideration should be given to the detrimental effects when a suspension is a consequence. Lee et al. (2011) raised concerns: “Suspending students from school sends a message that students are not wanted in the school” [and suspension] “may increase the dropout rate for White and Black students” (p. 186). Lawmakers are assessing the suspension of students. Morrocco, Aguilar, Clay, Brigham, and
Zigmond (2006) verified that a high suspension rate indicated schools were resolving problems by removing students. As a result, schools further exacerbated the dropout crisis and produced fewer students who were college and career ready. Educational leaders must find innovative ways to deal with student discipline problems. Willoughby (2012) added that suspensions and other hard punishments too often disconnected students from schools. A study in a large U.S. Southeastern school district reported data that disclosed nearly one-third of ninth grade dropouts received a suspension of more than 10 days in either eighth or ninth grade (Sparks, Johnson, & Akos, 2010). Consequently, students with disabilities had an even more difficult time maintaining appropriate behaviors needed for school. These inappropriate behaviors could be because of the many societal problems they encounter throughout their lives.

Students with disabilities have safeguards to protect them from the overuse of suspension as a consequence for inappropriate behavior. IDEA describes the procedures necessary for students with disabilities when a suspension is a consequence. Contrary to the safeguards, Krezmien, Leone, and Achilles, (2006) wrote, “Students with disabilities appear to be at greater risk for disciplinary procedures than their peers without disabilities” (p. 217). This population’s problems with discipline seem to be ongoing and persistent. Carter et al. (2010) found that problem behaviors were strongly associated with low self-determination capacity for students with disabilities. Students with disabilities tend to exhibit behaviors often misinterpreted in educational settings. Some students express themselves inappropriately due to frustration and their inability to understand requested tasks. Some of the behaviors displayed are a manifestation of a student’s disability. According to Vincent et al. (2012), most students with disabilities obtained suspensions for subjective violations of behavioral expectations and school rules.
Suspension reduced the exposure to instruction, increased aversion to academic tasks, and raised the risk for inappropriate behavior, which resulted in additional exclusion. Similarly, Sundius and Farneth (2008) exposed that the suspension rate for students with disabilities was higher despite that students with disabilities made up only 11% of the student population, and 20% of students with disabilities were suspended despite protections outlined in IDEA (Pub. L. 108-446). The provisions listed the following regarding suspension of students with disabilities:

School personnel may remove a child with a disability who violates a code of student conduct from his or her current placement to an appropriate interim alternative educational setting, another setting, or suspension, for not more than ten consecutive school days (to the extent those alternatives are applied to children without disabilities) and for additional removals of not more than ten consecutive school days in that same school year for separate incidents of misconduct (as long as those removals do not constitute a change of placement). (IDEA, 2004, sect. 1414 [d][3][B] [i])

Researchers further examined the underlying causes for suspension of students with disabilities. Vincent et al. (2012) assessed the disciplinary incidents leading to the exclusion of students and pointed out that those students with reading and math deficiencies were typically the students suspended and expelled from school. Because of academic frustration, the students displayed inappropriate behaviors. These students lacked the strategies necessary to keep them engaged in school. In addition, the study analyzed a subsample of 5,307 students identified with learning disabilities and noted when the students' exclusion from classrooms occurred. Ironically, these students began self-exclusion (Vincent et al., 2012). Self-exclusion or withdrawal is a coping mechanism used when students do not have the ability to use the skills necessary to be an advocate.
Advocacy is another element of self-determination. Meanwhile, Lee et al.’s (2011) findings concluded, “High school suspension rates were consistently associated with high school dropout rates. The degree to which the school made use of suspensions as a disciplinary consequence was predictive of dropout rates” (p. 182). Ultimately, administrators and teachers must identify alternative consequences that do not work against school safety or school attendance. Disciplinary practices must not send the message that students are not welcomed back at school or class after suspension or removal from class. This message can indicate the school environment is unsupportive, which affects students’ willingness to continue school. Contrary to evidence, proactive practices revealed supportive environments contribute to students’ self-determination and success in school on exams such as the ACT. In turn, the students remained in school and gained skills needed for college and career readiness. Students’ beliefs about the school environment and opportunities for success enhanced their commitment to school (Cavendish, 2013). Their belief system fosters their level of self-determination and resilience to feel a sense of purpose. Thus, they are willing to remain in school and pursue skills to become college and career ready.

Alienation

Alienation influences the decision to drop out of school. Students who possess low self-determination capacity do not seize the opportunity to be causal agents in situations. An important component of self-determination capacity is how the students feel about a situation. If students felt they had the confidence to voice their concerns or advocate on their behalf about the perception they feel toward school treatment, they could be assertive and manage situations that affect their achievement levels. A phenomenological study on the experiences of five male students who did not complete high school indicated that one student in the study pointed out
school culture contributed to alienation and withdrawal from school (Schulz & Rubel, 2011). In turn, the students displayed hostility and passivity in learning. As a result, students became disinterested in schoolwork and felt disempowered. In addition, the students felt that school could not fulfill their needs. Thus, they exited without a high school diploma. Incidentally, those feelings began early in the students’ educational experience. The lack of relatedness and strong relationships hindered the students’ sense of relatedness, which promotes personal growth. These students left school without the college and career readiness skills needed to be productive citizens.

School structure and organization can also create a sense of alienation and increase barriers for all students. Caskey (2009) wrote, “The organizational structure of American high schools is unwelcoming and marginalizes students who are already at risk of dropping out of high school” (p. 2). This additional barrier can become an added stressor for the students. Taines’s (2012) study of activism and its effect on school alienation revealed that students’ perceptions of the school surroundings shaped their willingness to invest in their education and respond to the school environment. Students’ perceptions particularly matter in urban areas where the students encounter hardships, such as limited resources, safety concerns, and less-prepared teachers, because students are left vulnerable to underachievement and school rejection. Although Taines’s study focused primarily on urban areas, all these students detected disconnection from school in demeaning environments.

The importance of positive relationship-building increases self-determination, which is critical to reducing alienation barriers. Self-determined students typically have higher academic achievement and a more positive outlook on their level of success (Field & Hoffman, 2012). They have the skills to advocate on their behalf and explain how the barriers impede them in a
manner that promotes staff awareness of consideration, which may contribute to mutual respect and less alienation. These students possess and demonstrated confidence, which is a component of self-determination and is paramount to overcome barriers. As a result, they continue in school and are prepared to become college and career ready.

**Connectedness**

The feeling of connectedness to a school is crucial for students to make the decision to remain in school, which leads to developing college and career readiness skills. A high level of self-determination capacity may also help students feel connected to school. Teachers are the variable to keep students in school. School connectedness refers to an academic environment in which students believe that adults in the school care about the students’ learning and them (Blum, 2005). Essentially, it is important that teachers and other stakeholders spend time building strong positive relationships with students. Teachers who create a positive and affirming environment make progress with students. They can teach these students key skills necessary for college and career readiness. Effective teachers make learning meaningful and relevant to their students’ lives.

Knesting (2008) revealed that students felt that teachers and students shared the ability and responsibility to prevent students from dropping out of school. Teachers and students developed supportive relationships and maintained high expectations as the students worked to achieve their goals. Blum (2005) added that characteristics, which helped students to feel connected to school, were high standards coupled with a strong teacher and a safe school environment. Students like school when they feel they belong, believe that education matters, and believe discipline is fair. Teachers who recognize students who typically struggle academically and socially, tend to help those students establish a feeling of connectedness. In
addition, rewarding a variety of student achievements and recognizing all students’ progress contribute to more positive student attitudes toward school (Blum, 2005). The awareness of students’ perceptions can support positive relationships between student-teacher relationships. Meanwhile, students feel a sense of autonomy and relatedness to their success to become college and career ready. Self-determination capacity motivates students to increase their academic and technical knowledge needed for both college and careers.

Positive teacher-student relationships increase self-determination and students’ persistence to complete high school. Strong relationships and a sense of attachment foster personal growth for students. When examining the student-teacher relationship with at-risk students and outcomes, Decker, Dona, and Christenson (2007) found that students’ relationships with their teacher correlated with engagement. The more positive emotional quality in a student-teacher relationship, the more engaged students were academically. This type of relationship is beneficial in helping students meet college and career readiness. Researchers supported the idea that positive teacher-student relationships increased the decision to remain in school.

Christle et al. (2007) insisted students who felt a sense of belonging and connectedness to school were less likely to drop out of school. Students’ comfort levels with their teacher and the school enhanced their willingness to succeed; thus increasing self-determination capacity. Conversely, “The more students feel that they do not belong in school, the more schools may become less inviting and rewarding” (Hickman, Bartholomew, Mathwig, & Heinrich, 2008, p. 4). When teachers support student autonomy, they perform better and display more intrinsic motivation. Students become actively engaged in educational activities and internalize school-related activities, which contribute to students’ commitment to graduating. The need for autonomy, competence, and relatedness, according to self-determination, are positively related to
students’ intentions to persist in school (Taylor, Lekes, Gagnor, Kwan, & Koestner, 2012). Relationships are the key to success among students who face challenges in school. The stronger the relationship bond between teachers and students, the more students can be self-advocates and feel confident they have control over situations and their futures, which lead to becoming college and career ready.

**Engagement**

Incidentally, students’ connectedness to school correlates to their level of engagement. Student engagement relates to the students’ commitment to an investment in learning. Engagement is significant and the most powerful predictor to determine if the students drop out of school. Engagement strategies are evident with students identified with a disability (Reschly & Christenson, 2006). Students with disabilities face similar challenges as their nondisabled peers, but they also struggle with the limitations of their disabilities. Incidentally, these limitations lead to disabled students becoming disenfranchised with the educational system. Eisenman (2007) proposed that school completion be in line with the current thinking that the key to engage students effectively. Educators who set out to engage students in learning help disabled students felt connected and invested in the school. Therefore, students’ efforts increased and helped the students to obtain more skills and knowledge that would prepare them to be college and career ready.

Ultimately, student engagement is linked to increased attendance and task completion which aid in academic attainment (Appleton et al., 2008). Educators and other stakeholders must be aware of the power they possess to help increase student engagement. The findings in a study on high school dropouts indicated that student engagement had a long-lasting impact on degree attainment and the decision to drop out of school. Research also supports the idea that engaged
students become facilitators of their learning (Suh & Suh, 2006). As teachers facilitate learning, students receive opportunities to make decisions and choices, which enhance self-determination capacity. As a result, these students can practice self-determined skills with fidelity and can retrieve the skills with little effort because of the increased opportunities to practice. Such success builds upon foundational skills needed to learn advanced skills for college and career readiness.

In contrast to student engagement, disengagement affects the likelihood of students to remain in school. Maruyama (2012) explained college and career readiness is a multidimensional construct that included academic preparation and noncognitive skills such as motivation, engagement, and self-efficacy. Varied variables affect college and career readiness. These variables range from rigorous coursework to peer interaction, student-teacher relationships, and parental influence, which help students become college and career ready. These variables also determine students’ disengagement levels. Students who struggle academically, and do not relate to peers disengage from school.

Disengagement begins as early as elementary school for some students. Disengagement signs for dropping out of school emerge at an early age and go unnoticed. As signs go unnoticed, the students’ confidence and willingness to put forth effort in school diminished. A crucial time to begin working on self-determination skills for students with disabilities is before disengagement. Students with disabilities need support to utilize self-determination skills. Nelson (2006) confirmed that students’ attendance problems and a slow process of disengagement patterns developed in earlier elementary grades well before the student reached high school. In the elementary school, disengagement began with indicators as small as missing
homework assignments, falling behind grade level in reading, having low or failing grades, and having to repeat a grade.

The indicators for disengagement intensify in the high school. Lessard et al. (2008) reported that high school dropouts who were interviewed described their disengagement as becoming invisible at school, withdrawing from the social aspects of high school, not seeing the value of school, and using avoidance strategies, such as truancy and drug abuse, to cope. Some of the high school dropouts also stated they continued as far as they did in high school because some teachers acknowledged, cared for, and appreciated them. Statements made by these high school dropouts show cause to explore using self-determination strategies as a mean to help students continue to pursue a high school diploma.

The factors that plague the students are things that could be lessened or fixed with consistent correction and intervention. Additional causes that influence the ultimate decision to leave school are low levels of engagement in school and a perceived lack of academic and social support from teachers (Murray & Naranjo, 2008). Many educators purposefully overlook planning for engagement in classrooms and do not see the importance of goal setting and problem-solving as remedies for disengagement. Such skills are necessary for students with disabilities and low self-determination during instruction. Educators must make a paradigm shift where they view themselves as facilitators and resolutely plan for student engagement. These strategies create a sense of connectedness, which will increase the students’ eagerness to be engaged in the classroom. Students used their self-determination skills to participate in tasks and complete assignments under such conditions. Therefore, the students feel and believe that they can be successful. This level of self-determination capacity helps students remain in school and gain skills required for college and career readiness.
However, a student’s failure to make these connections leads to disconnection and withdrawal from various aspects of the school. Disengagement has a significant impact on the success rate of students and when combined with other factors, it diminishes student performance. According to Archambault et al. (2009), one-third of adolescents experienced disengagement during high school and their commitment to school dropped significantly. In consequence, educators and other school officials must shelter these students. In addition, students who reported low engagement in behavioral investment from the beginning of high school presented higher risks of later dropping out. Other researchers concluded similar findings and the impact disengagement had on success.

Indicators also measure disengagement. Henry, Knight, and Thornberry (2012) used a school disengagement warning index as a predictor of a high school dropout. In fact, the index showed student disengagement out-weighed course failure, poor attendance, low achievement, and school suspensions. As a result, it is prudent for educators to emphasize self-determination strategies, which help students actively participate adequately in classroom instruction, which emphasizes college and career readiness skills, because of the awareness of disengagement. When educators facilitate environments, which promote connectedness and build trusting relationships with students, students’ engagement levels increase. Creating such an environment is key for students who may make the decision to leave school without a high school diploma and college and career readiness skills. Feeling a sense of connectedness and having trusting relationships with students may help them reconsider their thoughts of leaving school before graduation.
**Low Academic Performance**

Low academic performance is another challenge students with disabilities face, even more profoundly than do their nondisabled peers. Low academic performance is an effect of absenteeism, disengagement, and low self-determination skills and is a major contributing element of a student’s decision to drop out of school. Students with disabilities tend to lag behind their nondisabled peers regarding educational attainments (Irvin et al., 2011). High levels of self-determination capacity are needed for students to overcome obstacles that prevent them from finding academic success. These students also lack the self-determination skills needed to be causal agents, which affect what may happen to them. Low performance typically leads to retention, which increased the risk of dropping out of school by 40% to 50% (Kemp, 2006). Academic failure can emerge throughout students’ lives and affect their determination and persistence to continue with school. Likewise, “Retention tends to be an extension of preexisting academic failure. When students are retained in elementary grades, they are at greater risk for future academic failure, which includes the propensity to drop out of school” (Hickman et al., 2008, p. 4). Special strategies and a plan for success should be created to acquire different results and on-time graduation for retained students.

The dynamics of dropout markedly changed throughout the years. In the past, dropouts were students who could not make the grade, left school because of pregnancy, or quit because of drug addiction (Nelson, 2006). Current research indicated that other factors contributed to students dropping out of school. Tyler and Lofstrom (2009) described characteristics of dropouts as having poor performance, low-test scores, and weak student engagement. These students also sustained high absenteeism and disciplinary problems.
Dropouts also expressed their reasons for leaving school. These students believed that they could have succeeded in school. The students lack the ability to be causal agents and take control of their situation, thus preventing a return to school and producing fewer students who are college and career ready. Thirty-five percent of the students surveyed also reported that failure in school was the top reason for their decision to leave school. The students in the survey reported it was difficult to pass because of too many missed days, which hampered their ability to catch up. In addition, the students who repeated a grade had doubts that they could make up the work because they had trouble learning or understanding the material (Bridgeland et al., 2006). The academic and social obstacles that these students indicated included a lack of self-determination capacity to better their situation. The students appeared to understand their circumstances but felt they could not advocate for themselves to improve their current situation. Low self-efficacy because of lack of academic and social mastery appeared to be an integral factor that led to students dropping out of school (Hickman et al., 2008). High levels of self-determination capacity help students to overcome the challenges they face, which may increase deficits in producing college and career, ready candidates.

The failure to meet milestones adds to the low academic performance and may cause students to struggle academically throughout their school career. Students with disabilities compensate for low academic performance because their disability is ever present. Some warning signs of academic failure follow:

[a] students not having mastered reading by third grade, [b] students displaying poor academic performance in English, math and reading in sixth through eighth grades and [c] students having difficulty transitioning into the ninth grade. (APA, 2012, p. 3)
Awareness of the warning signs can help practitioners become proactive to counteract the precursors of failure. Sparks et al. (2010) confirmed the warning sign:

Failing English I and scoring below grade level on grade 8 standardized reading tests and being retained in any grade kindergarten through 9th grade are factors that result in 60.9 percent of 9th grade dropouts, as compared with 8.2 percent of students who did not drop out. (p. 47)

Consequently, the current benchmarks, which students required to meet standardized assessments, added to the pressures that students with disabilities face when they attempt to complete high school. College and career readiness instruction should begin long before high school. Because early warning signs begin as early as third grade, systems that monitor warning signs in elementary school can transfer to the middle school and high school. Students who are at risk for dropping out of school tend to show difficulty transitioning from elementary to middle and middle to high school. It is evident that transition grades give significant data on the likelihood that students may drop out of school. Focus may begin with transition grades at each level and structure interventions to support the transition grades.

Daggett (2013) pointed out that the focus of K-12 and higher education needs to make a dramatic shift from what classes should be taken to what students can do. Proactive measures and consistent intervention based on students’ needs can provide smoother transitions from elementary, middle, and high school and diminish the widening of the achievement gap across grades. Recently, Partnership for 21st Century Skills and Cradle to College and Career Ready created reforms to strengthen college and career readiness from preschool to high school (Fowler et al., 2014). Data indicated that students who struggled in third-grade reading had a higher prediction of dropping out of high school. Third-grade is a period in schooling where students
read to learn versus learning to read. Educators and researchers alike believed that third-grade reading was critical in determining student success levels.

According to Hickman et al. (2008), “Many educators and researchers believe that by third grade if actions are not taken to correct academic deficits, students can enter an academic downward spiral that eventually forms an un-navigable pathway that leads to dropping out of school” (p. 4). It is evident that corrective action should occur as early as third grade. Students begin standardized testing in third grade. Meanwhile, the accountability rate heightens for them as well. Because low academic performance appeared to be another predictor that influenced the decision of students to leave school, strengthening the identification process of struggling students and interventions, as well as self-determination skills, can eliminate the academic achievement gap earlier. In addition, embedding self-determination skills in the K-12 curriculum can build college and career ready skills. Likewise, college and career readiness skills should be instructed from kindergarten to completion of high school. Preparing students with disabilities to become college and career-ready is important to their future success and contribution in society.

Consequences of Dropping Out of School

Many factors correlate with the consequence of dropping out of school. The dropout crisis is tragic for the country. Consequences of dropping out of school are severe for both disabled and nondisabled students and the nation. Ziomek-Daigle and Andrews (2009) reported, “The United States is the only industrialized country in the world in which today’s young people are less likely than their parents to have graduated high school” (p. 54). This information is staggering, and it deepens the need for educators and other stakeholders to take an active role in providing students the support needed to become productive citizens. Productive citizens have the ability for economic growth, which improves the economy globally. Many times, individuals
who do not have a diploma rely on public assistance to meet their basic needs. Research indicated that over a lifetime, dropouts receive increased dependence on public assistance, receive lower earnings, experience poorer health, and have higher rates of unemployment, mortality, criminal behavior, and incarceration (Bridgeland et al., 2006; Murray & Naranjo, 2008; Zhang & Benz, 2006). Hence, students who drop out of high school without a high diploma cause social and economic problems for the country.

Conversely, “If the United States’ students who dropped out of the Class of 2011 had graduated, the nation’s economy likely benefited from nearly $154 billion in additional income over the time of their lifetimes” (Alliance for Excellent Education, 2011, p. 1). Fewer students receiving high school diplomas affect the workforce. The effect employers experience by the high dropout rate is they struggle to find qualified candidates to fill positions that require higher skill levels (Tsoi-A-Fatt, 2010). The United States is unable to meet the global demands of the economy because less-qualified candidates lack the proficiency needed to meet mandated skill sets. “Dropouts represent a tremendous loss of human potential and productivity, and they significantly reduce the nation’s ability to compete in an increasingly global society (Alliance for Excellent Education, 2011, p. 3). The United States must find innovative and unique ways to help decrease the dropout rate and provide more students with higher proficiency in reading and math to make them employable (Daggett, 2013). Failing adequately to address the problem of the higher dropout rates cripples the educational system. Using as many strategies as possible should help students meet the goal of graduating with college and career ready skills.

Incidentally, the cost of supporting dropouts on society is unevenly distributed financially across racial and ethnic groups. Income and health disparities prevent high school dropouts from significantly contributing to society (Tyler & Lofstrom, 2009). The type of support high school
The ability to self-regulate and make appropriate choices is complicated for students who drop out because they do not have the academic and self-determination skills that would foster appropriate behavior. According to Murray and Naranjo (2008), a positive correlation exists between deviant and criminal behavior within the community and high dropout rates. These students were also unemployable because of poor career readiness skills.

**Lack of Employment**

One of the most severe consequences of dropping out of school is the ability to attain and hold viable employment. According to Daggett (2013), in the United States, 70% of citizens, ages 17 to 21, were ineligible for military service, and 64% of companies struggled to find candidates to hire who were career ready. When students decide to drop out of high school, their decision affects their quality of life and creates many obstacles for them. Dropouts are less likely to have full-time employment and obtain minimum wage jobs. They also experience frequent unemployment.

Researchers believed that if students who dropped out in 2011 had graduated, the nation’s economy would have benefited from $154 billion in additional income over the course of their lifetimes (Alliance for Excellent Education, 2011). The employment rate of high school dropouts is disproportionate to students who receive high school diplomas. Sum, Khatiwada, and McLaughlin (2009) revealed that the jobless rate during 2008 was 54% for the nation for young high school dropouts as compared to 32% for student high school graduates. The jobless rate was 21% for students who completed 13 years of post-secondary schooling compared to 13% of students who held a 4-year college degree. Wages among high school dropouts were significantly lower than their peers while students who completed 13 years of post-secondary
school and those who held a 4-year college degree were significantly higher. The dropouts lack the educational skills of their counterparts and often did not meet the minimum requirements for higher wages.

Students with disabilities have a greater challenge of meeting standards because of their disability and lack of self-advocacy skills. In 2009, high school dropouts earned an average of $19,540 as compared to high school graduates who earned $27,390. Students who obtained an Associate Degree earned $36,190 while students with Bachelor’s Degrees earned $46,930. The level of educational attainment was a true predictor of earnings (Alliance for Excellent Education, 2011). Therefore, it is crucial to support students with disabilities who have low self-determination capacity. The high school diploma along with college and career readiness skills are the gateway to future success. As a result, their financial struggles diminish.

**Substandard Health**

Lack of employment coupled with other negative consequences, such as substandard health and greater at-risk health factors, influence students’ quality of life. They drop out of high school and do not have a livable wage occupation, which includes healthcare. Along with low wages, high school dropouts have higher rates of health risks dissimilar to those high school graduates who have more education. According to Theunissen, van Greiensven, Verdonk, Feron, and Bosma (2012), more educated individuals have increased life expectancy, reduced burden of illness, prolonged consequences of aging, and decreased unhealthy behaviors. Less-educated individuals have difficulty advocating on their behalf and maneuvering the health care system. The lack of self-regulatory skills resulted in not making appointments for medical issues and utilizing the emergency room when ailments become so severe because of financial barriers. Conversely, “High school dropouts are associated with a substantially higher probability of
receiving medical and non-medical social insurance benefits and have mechanisms in adolescence that are the basis for these adversities” (DeRidder et al., 2013, p. 1). When individuals lack strong advocacy skills, and self-determination capacity, they become victims of social systems already set in place. Therefore, it is of utmost importance that these individuals have career readiness skills needed for occupations with livable wages and healthcare.

Researchers have explored and documented the effect low educational attainment has on health. A strong correlation exists between educational attainment and health. DeRidder et al. (2013) focused their study using a sample of 9,000 Norwegian adolescents. The study corroborated the idea that many high school dropouts struggled with psychological distress, insomnia, and concentration difficulties. All these health factors worsened when dropouts lived with the added stress of unstable finances because of lack of employment or limited employment. Sweeten, Bushway, and Paternoster (2009) asserted, “High school dropouts are at a greater risk for both early death and a variety of poor health outcomes” (p. 49). The decision to drop out of school leads to individuals living a poorer quality of life. Those who are college and career ready typically obtain careers that have multiple benefits, which lead to a high quality of life.

Although little research specifically described whether students with disabilities have more challenges with substandard health care, a qualitative study describing the perception that school nurses have regarding students with intellectual and developmental disabilities was completed. The study indicated school nurses felt unprepared to care for these students because of lack of training, and they felt that communication was a barrier to providing the most appropriate care for students with disabilities (Singer, 2012). Incidentally, these students become adults with disabilities who face the same challenges. Other medical personnel who
encountered these students when they were adults had the same perception. Thus, it is important for everyone to be aware of how to interact with people with disabilities to provide adequate health care. Students who have strong self-determination capacity can advocate for themselves and express their needs in a manner that others may understand. Such action assists caregivers to administer proper care for the individual.

**Criminal Behavior**

Not only does dropping out of high school affect the economy and contribute to high rates of health risks, but criminal behaviors can also be an outcome. Students who drop out of high school are more likely to participate in delinquent behaviors that lead to incarceration. Carter et al. (2010) added, “Youth who feel they have limited self-determination may engage in challenging behaviors which further limits the opportunities they have to behave in self-determining ways” (p.77). Poor school achievement, deficits in career readiness skills, education-related disabilities, and poor school achievement induce at-risk behaviors (Bloomberg et al., 2011). Dropouts also leave school because of poor relationships with staff members. Instead, they bond with other delinquent peers or individuals who foster connectedness and strong social bonds, which lead to crime. High school dropouts tend to break the law because of idle time. These students have more idle time than others because they do not have the career readiness skills to obtain employment with livable wages. These young adults also lack the ability to make appropriate decisions and self-regulate their behaviors, which results in delinquent behaviors. These delinquent behaviors linked the students’ inability to provide themselves with the lifestyle they would prefer because they do not possess a high school diploma. According to Savolainen et al. (2012), poor educational performance and dropping out of high school increased the risk of incarceration. They also suggested that academic
performance and school attachment can mediate the effects of learning difficulties on the late-adolescent risk of criminal conviction.

**Counteracting Dropping Out of School**

The negative effects of dropping out of high school affect the local community. Education leaders and other stakeholders overwhelmed with concerns about high school dropout prevention continue to seek intervention to decrease the dropout rate. Essentially, helping students remain in school is at the forefront of the nation’s social and political agenda, particularly because of the need to compete in a global economy. Earlier in the 21st century, the NCLB (Pub. L. 107-110) heightened accountability for completion of high school for all students, which includes students with disabilities (Reschly & Christenson, 2006). All subgroups were accountable for graduating from high school on time. Out of this legislation, many programs were developed to aid in graduating more students from high school. Prevention programs and interventions, which include self-determination skills, are mechanisms that could reduce the economic cost for all citizens and provide more candidates for the global workforce. Although many prevention programs arose, consideration for which programs and interventions produce the greatest results and swiftly diminish the dropout crisis facing the nation during a period of economic recession are at the forefront for all stakeholders. The educational system must provide added support for students with disabilities to ensure they have the skills needed to be successful.

Stakeholders at the local and national level are moving forward with legislation to meet the needs of all students in public education. Policy factors, which affect students who choose to drop out of school, are raising the bar for standards, eliminating multiple types of diplomas, and increasing the graduation requirements for both disabled and nondisabled students. Goodman,
Hazelkorn, Bulcholz, Duffy, and Kitta (2011) shared that the decrease in the graduation rate related to high stakes tests and core curricula. For instance, some exit exams do not correlate to demonstrating proficiencies in skills needed for college and career readiness. Gaertner and McClarty (2015) wrote, “Sixty (60) percent of students entering community colleges need developmental education before they are ready for entry-level college bearing courses” (p. 20). As the bar rises, it is important to equip all students with additional strategies and interventions to increase their chances of academic and career success.

Recently, states looked at the impact state-required exit exams had on graduation and whether these exams conflicted with course requirements. Nevada, Arizona, Alabama, Georgia, and South Carolina phased out exit exams and use End of Course Tests, the ACT, or tests that give information regarding students’ aptitude for college or jobs (Barsett, 2013). All Americans must take an active role to ensure that students graduate with a high school diploma as well as be college and career ready. This initiative takes the collaborative efforts of all educational stakeholders. It allows everyone to revisit practices and policies that affect the graduation rate of students. Practices and policies need to embed self-determination strategies along with college and career readiness skills to help students, which includes those with disabilities.

More recently, The American Recovery and Reinvestment Act of 2009 (Pub. L. 111-5) made dropout prevention and recovery a priority. Many students were dropping out and not making a positive impact on society. Dropout prevention needs effective programs and strategies that provide these students with other options. Likewise, the reauthorization of the ESEA (Pub. L. 94-142) also holds local agencies accountable for dropouts. This act reconnects youths who have left school without receiving their high school diploma (Tsoi-A-Fatt, 2010). In addition, current High School Redesign initiatives have developed systems to prepare students
better by moving beyond basic competency in core subjects to understand academic content at higher levels (Fowler et al., 2014).

Most recently, South Carolina collected dropout recovery data, which are on high school report cards. Findings from a meta-analysis study, which examined 61 studies on 12 dropout prevention strategies, indicated family engagement supported through a team approach by teachers, families, and administrators helped reconnect students to schools (Chapell, O’Conner, Withington, & Stegelin, 2015). These strategies included mentoring, academic support, job-training, and service-learning. Such proactive approaches required awareness of all constituents beginning at the grassroots and moving nationally to improve the graduation rate of students.

In 2010, American’s Promise Alliance initiated the Grad Nation Movement, a grassroots initiative, joining other stakeholders in combating the dropout crisis. The Grad Nation Movement involves organizations, individuals, and communities that work to end America’s dropout crisis (Balfanz et al., 2014). The increased awareness of the dropout predicament has led to a sense of urgency to respond to this problem. This movement reports on the graduation rates and monitors its Civil Marshall Plan, which has two goals, according to Balfanz et al. (2013): “[a] 90% nationwide high school graduation rate for the class of 2020, and [b] at least 6 in 10 students will earn a college degree by 2020” (p. 6).

The American’s Promise Alliance (2010) realized that action plans with targeted implementation stages were necessary to minimize the number of students who dropped out of high school. The organization’s commitment to solving the problem of students dropping out of school had a multi-layered approach. Many factors that impact students’ success in schools make it difficult to pinpoint specific solutions. Therefore, other researchers used different approaches to obtain the same results. Dynarski et al. (2008) recommended using the Institute of
Education Sciences recommendations from the study of dropout prevention programs. The study indicated that preventing students from making a choice to drop out of school required multiple components, which included diagnostic observations and targeted interventions (Pyle & Wexler, 2012). Self-determination skills which include capacity and opportunity combined with targeted interventions will enhance students’ college and career readiness skills. Ultimately, identifying the factors that increase the likelihood of a student dropping out of school is insurmountable at best.

Educational leaders must devise creative ways to make school more appealing for all students. Stakeholders must address the problems that lead to perspective dropouts making the final decision to leave educational institutions without a high school diploma. Students also benefit from programs that enhance their social and emotional assets (APA, 2012). Positive relationships between students and teachers help foster a positive learning environment. The importance of creating relationships with students that facilitates active engagement in learning and the connection to the school is significant to keep young people in school. It is most important for educators to build strong positive relationships with students because these relationships could serve as a determining factor in a student’s decision to drop out of school. Self-determination interventions foster protective factors and processes that strengthen the youth and build resilient youths who can face great odds and powerful influences (Murray & Naranjo, 2008). No one strategy works best for all students who are contemplating the decision to drop out of school.

Kortering and Christenson (2009) asserted that effective interventions must account for the students’ level of commitment to learning, perceptions of academic and social competence, achievement motivation, and a sense of belonging. Consequently, students who are thinking of
dropping out of school must find some vested interest in school, which could motivate them to remain in school and gain the skills needed for postsecondary success, whether it be college or career. Various stakeholders noted factors that strengthen self-determination skills and provide an array of solutions that help students overcome challenges and remain in school. Students felt they have gained mastery in content, which gave them the confidence to face future challenges. As a result, students possessing high levels of self-determination were more motivated and displayed a stronger interest in school than their peers who lacked self-determination.

Currently, local and national organizations strive to decrease the high school dropout rate through centers that catalog interventions and strategies for dropout prevention. The NDPC (2014), whose mission is to increase the high school graduation rates through researched and evidence-based solutions, identified 15 research-based strategies that impact dropout prevention:


These strategies, which are used in many programs, support dropout prevention through increasing awareness of high school dropout prevention programs. The strategies are diverse enough to address needs based on the specificity of individual and community needs.

Researchers verified the importance of effective strategies used by the NDPC. Other researchers condensed overlapped strategies with the NDPC. Smink and Schargel (2013) reemphasized the importance of the following strategies: (a) early education, (b) mentoring, (c)
alternative education, (d) professional development, (e) individualized instruction, (f) instructional technology, (g) community collaboration and (h) safe learning-environments.

Differentiation of these strategies must be used to address the needs of disabled and nondisabled students alike. Strategies used to help prevent students from making the decision to dropout must be continuous and on-going throughout their educational careers to ensure success. In addition, Smink and Schargel (2013) explained that each strategy could make a difference on its own. Strategies applied in a concerted effort with the NDPC’s 15 strategies can be a powerful force. The strategies used with NDPC’s strategies compliment the self-determination skills. The consensus was that a multitude of strategies was available, which supported self-determination and college and career readiness skills. However, the strategies must be targeted based on the specificity of the individual, group, or community. Through varied experiences and interaction with students who are considering dropping out of school, individuals can determine which strategies will work best for a particular individual, group, or community. All efforts will directly affect educational practices for students to become college and career ready.

**Summary**

The components of the self-determination theory, such as competence, relatedness, and autonomy, are relevant to addressing the types of students who drop out of school, the reasons those students drop out of school, and the effects dropouts have on society. The dropout epidemic and deficit in students who are college and career ready in the United States affect the nation as well as the home communities of students who leave school before graduation. Research indicates the decision to drop out of school typically begins as early as elementary school and goes undetected until a student reaches high school. Research also explains that adequate college and career readiness skills can enhance K-12 curricular and help students
develop the skills needed to enter college or the workforce. In addition, embedding self-determination skills can create more positive academic, transitional, and post-secondary outcomes for students with disabilities (Wehmeyer et al., 2012).

Early predictors, such as missing homework and off-task behaviors, lead to major issues such as truancy, disciplinary infraction, and disengagement. Incrementally, the patterns of behaviors worsen and become more severe. The review of the literature disclosed that the decision to drop out of high school without obtaining a high school diploma is a gradual process that encompasses a variety of factors. Dropping out of school has long-term effects on students’ quality of life, both economically and socially. Students who do not possess a high school diploma and college and career readiness skills have limited opportunities and experience adverse consequences for dropping out of high school. They have difficulty seeking stable or consistent employment. In addition, those who do not graduate have lower wages than individuals who obtained a high school diploma and have higher rates of incarceration. Therefore, they typically do not contribute positively to society.

Among the students who drop out of high school, students with disabilities have the highest incidences of leaving high school before gaining a diploma and face the greatest challenges in securing a stable future (Pyle & Wexler, 2012). These students struggle academically because of characteristics related to their disabilities and lose interest in learning. As a result, students with disabilities lack the confidence needed to stay motivated and remain in school until graduation with skills that prepare them for college and careers. These students do not hold the strong relationship bond with the educational setting and become disengaged from school. These deficiencies prevent the autonomy necessary for personal growth and determination.
Currently, policy makers and researchers place more emphasis on the need for dropout prevention programs that specifically target needs of subgroups such as students with disabilities. Research-based data support the premise that individuals who lack a high school diploma struggle to meet the minimum requirements and demands of college and career readiness skills needed for the current global society. The use of self-determination skills with dropout prevention strategies can increase the number of students remaining in school until graduation to become college and career ready. Herron and Martin (2015) wrote, “Research suggests that increased skills regarding self-determination concepts are particularly important for those within this population” (p. 215).
CHAPTER THREE: METHODS

Overview

It is necessary to produce students who possess the skills needed to serve the ever-changing world. Students need to exit high school with a high school diploma as well as college and career readiness skills, which allow them to compete in a global society. This correlation study determined the relationship between the AIR Self-Determination Scale and ACT scores. This chapter examined the research design, questions and hypotheses, participants, setting, instrumentation, procedures, ethical considerations, and analysis.

Design

This quantitative correlation research determined the relationship between the AIR Self-Determination Scale scores and ACT Scores. The self-determination theory highlighted students’ psychological needs (i.e., autonomy, competence, and relatedness) as motivation to facilitate optimum function (Jang, Kim, & Reeve, 2016). Self-determined students demonstrate autonomy, competence, and relatedness to accomplish their goals. These students can express their own interests with supportive relationships, and maintain an awareness of their ability and how to use resources to obtain assistance from others. The students with high levels of self-determination also feel a sense of connective, which facilitate their well-being (Lynch, 2010). The AIR Self-Determination Scale, which was used in this study, is a self-reported assessment that conveyed the students’ perception of their self-determination level. The ACT scores assessed students’ progress toward college and career readiness and education achievement based on high school coursework completed (Clough & Montgomery, 2015). Colleges use ACT scores for entrance to predict students’ success rate in college bearing courses. The ACT is also a form of accountability for high school performance for some states. The correlation between
self-determination and ACT scores predicted the success rate of students to be college and career ready.

Correlation research involves collecting data on two or more variables to determine the strength of the relationship between the variables (Gall et al., 2007; Howell, 2008). The purpose of a correlation study was to determine if a relationship existed between two subjects. In this design, the researcher did not attempt to control or manipulate the variables. The following questions guided this research:

**Research Questions**

This study answered the following questions and hypotheses:

**RQ1:** Is there a relationship between the overall AIR Self-Determination Scale scores and ACT scores?

**RQ2:** Is there a relationship between students’ capacity subscale scores on the AIR Self-Determination Scale and ACT scores?

**Hypotheses**

The null hypotheses for this study were:

**Ho1:** There is no relationship between overall AIR Self-Determination Scale scores and ACT scores.

**Ho2:** There is no relationship between students’ capacity subscale scores on the AIR Self-Determination Scale and ACT scores.

**Participants and Setting**

Two of three high schools in an award-winning district for academics, athletics, and the arts in the Lowcountry of South Carolina were chosen for sites for this study. The district has 15 elementary schools, 6 middle schools, 3 high schools, and an alternative program. The district
emphasizes increasing college and career readiness initiatives through collaboration with local colleges, businesses, and chambers of commerce. Students participate in Early College and Dual Credit programs, which allow students to earn both high school and college credits. The district administers The ACT to assess students’ college and career readiness skills for all juniors.

The participants in this study consisted of twelfth grade students with disabilities in two suburban public high schools in the Lowcountry of South Carolina. The largest high school with the largest number of students in the district did not participate in the study. High School A’s served approximately 2,200 students with 7.5% of the students classified as having disabilities. School A’s make-up consisted of 71.0 % White, 25.0 % Black, 3.0% Hispanic, and 1.0% Asian. Twenty-five percent (25.0%) of the students attending High School A qualified for free and/or reduced lunches. High School A’s graduation rate was 90.2% with an absolute rating of Excellent and a growth rating of Excellent for 2015. The annual dropout rate for High School A was .9%, and the dropout recovery rate was zero. The composite ACT score for High School A was 20.2, English 19.5, mathematics 19.5, reading 20.6, science 20.5, and writing 16.5.

High School B served approximately 2,100 students with 9.0% of the students classified as having disabilities. High School B’s student body makeup was 49.0% White, 43.0% Black, 4.0% Hispanic, and 4.0% Asian. Twenty-nine (29.0%) percent of students attending High School B qualified for free/or reduced lunches. High School B’s graduation rate was 85.5% with an absolute rating of Excellent and a growth rating of Excellent for 2015. The annual dropout rate for High School B was 0.9%, and the dropout recovery rate was zero. The composite ACT score for High School B was 18.9, English 17.9, mathematics 18.9, reading 19.2, science 19.1, and writing 14.8.
The combined student body population for the two high schools participating in this study was approximately 4,300 during the 2016-2017 school year. The student body makeup for this study consisted of 60.3 % White, 33.7 % Black, 3.5 % Hispanic, and 2.5 % Asian. The total number of 12th graders at the time of this study was approximately 1,126 (26.0 % of the total population). Eighty-Five (7.5%) of the 12th graders were students with disabilities. Sixty-Two (72. 9%) of the eighty-five students with disabilities were 12th graders with high incident disabilities on a course of study for a high school diploma. Twenty-Three (2.0%) of the 12th grade students were students with severe disabilities who were not on the course of study for a high school diploma.

Table 1 shows a comparison of the schools’ population to the participants in this study.
Table 1

Comparison of schools’ general population to participants in the study

<table>
<thead>
<tr>
<th></th>
<th>School A</th>
<th>School B</th>
<th>Total Population School A + School B</th>
<th>Participants in study/School A + School B</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of Students</strong></td>
<td>2200 (51.2%)</td>
<td>2100 (48.8%)</td>
<td>4300</td>
<td>30 (.01%)</td>
</tr>
<tr>
<td><strong>White</strong></td>
<td>1562 (60.3%)</td>
<td>1029 (39.7%)</td>
<td>2591</td>
<td>13 (.01%)</td>
</tr>
<tr>
<td><strong>Black</strong></td>
<td>550 (37.9)</td>
<td>903 (62.1%)</td>
<td>1453</td>
<td>12 (.01%)</td>
</tr>
<tr>
<td><strong>Hispanic</strong></td>
<td>66 (44.0%)</td>
<td>84 (56.0%)</td>
<td>150</td>
<td>4 (.03%)</td>
</tr>
<tr>
<td><strong>Asian</strong></td>
<td>22 (20.8%)</td>
<td>84 (79.2%)</td>
<td>106</td>
<td>1 (.01%)</td>
</tr>
<tr>
<td><strong>Twelfth Grade Students</strong></td>
<td>590 (52.4%)</td>
<td>536 (47.6%)</td>
<td>1126</td>
<td>30 (.03%)</td>
</tr>
<tr>
<td><strong>Twelfth Grade Students with Disabilities</strong></td>
<td>36 (42.4%)</td>
<td>49 (57.6%)</td>
<td>85</td>
<td>30 (35%)</td>
</tr>
<tr>
<td><strong>Twelfth Grade Students with High Incident Disabilities</strong></td>
<td>23 (37.0%)</td>
<td>39 (63.0%)</td>
<td>62</td>
<td>30 (48%) (73% of twelfth grade students with disabilities)</td>
</tr>
<tr>
<td><strong>Twelfth Grade Students with Low Incident Disabilities</strong></td>
<td>4 (17.3%)</td>
<td>19 (83.6%)</td>
<td>23</td>
<td>None (0%) (27% of twelfth grade students with disabilities)</td>
</tr>
</tbody>
</table>
All students in the sample were served in the general education setting. The classifications of these students indicated they might have more difficulty in the basic academics, a general lack of motivation toward school, and impairments in school-related skills than did their nondisabled peers (Seo, Wehmeyer, Palmer, & Little, 2015). The disability classifications in this study were 36.7% \((n = 11)\) with specific learning disabilities, 16.7% \((n = 5)\) with other health impairments, and 10.0% \((n = 3)\) had dual disabilities consisting of other health impairments and speech-language impairments. Six and seven tenths \((6.7\%)\) \((n = 2)\) had autism spectrum disorders, 6.7% \((n=2)\) had intellectual disabilities, and 6.7% \((n=2)\) had specific learning disabilities with speech language impairment. Three and three tenths \((3.3\%)\) \((n=1)\) had emotional disorders, 3.3% \((n=1)\) had an intellectual disability with an autism spectrum disorder, and 3.3% \((n=1)\) was classified as other health impairment with speech language impairment and as an English Language Learners. Six and seven tenths \((6.7\%)\) \((n=2)\) had specific language impairment with specific learning disability and were classified as English Language Learners. The list of participant disabilities is presented in Table 2.
Table 2

Disability Classifications

<table>
<thead>
<tr>
<th>Disability</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific Learning Disability</td>
<td>11</td>
<td>36.7</td>
</tr>
<tr>
<td>Other Health Impairment</td>
<td>5</td>
<td>16.7</td>
</tr>
<tr>
<td>Other Health Impairment/Speech Language Impairment</td>
<td>3</td>
<td>10.0</td>
</tr>
<tr>
<td>Autism Spectrum Disorder</td>
<td>2</td>
<td>6.7</td>
</tr>
<tr>
<td>Intellectual Disability</td>
<td>2</td>
<td>6.7</td>
</tr>
<tr>
<td>Specific Learning Disability/Speech Language Impairment</td>
<td>2</td>
<td>6.7</td>
</tr>
<tr>
<td>Emotional Disorder</td>
<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td>Intellectual Disability/Autism Spectrum Disorder</td>
<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td>Other Health Impairment/Speech Language Impairment/English Language Learners</td>
<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td>Specific Learning Disability/Speech Learning Impairment/English Language Learners</td>
<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td>Specific Learning Disability/Speech Learning Impairment/English Language Learners</td>
<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The participants fell into the minimum number of participants needed for a correlation research method. According to Creswell (2007), “In correlational research, a minimum of 30 participants is desirable” (p. 176). This study had a small effect size, \( p = .1 \), an alpha level of \( p < .05 \), and a power level of 95. The selected levels ensured appropriate significance levels. The alpha level determined if the null hypothesis was rejected or accepted.

The students who were enrolled in school during the 2016 administration of The ACT and received permission to participate in the AIR Self-Determination Scale participated in this study. These students participated in The ACT as a performance assessment for their state’s
performance rating. In addition, the students’ ACT scores can satisfy entrance requirement for college. The premise for using self-determination and ACT scores was that students with high levels of self-determination also have high levels of achievement.

The selection of students for this study was through convenience sampling. Convenience sampling is a nonrandom sample, which has a targeted audience, and was used in this particular study. Farrokhi and Mahmoudi-Hamidabad (2012) described convenience sampling as one of the most common samples that targets nonrandom members based on a practical criterion such as geographical proximity, availability at a certain time, easy accessibility, or the willingness to volunteer. In both schools, the percentage of students with disabilities was lower than 10% of the entire student body.

**Instrumentation**

The purpose of this correlation study was to determine whether there was a relationship between self-determination and achievement. The variables were the AIR Self-Determination Scale Scores (Student Version) and ACT scores. In this study the overall self-determination level and the self-determination capacity subscale were compared to the ACT composite scores. These variables determined the probability of students’ success based on their overall self-determination level and college and career readiness skills (ACT, 2015; Washington et al., 2012). Research indicated possessing high levels of self-determination promotes competence, autonomy, and relatedness, which increase the college and career readiness for students (Moore & McNaught, 2014; Smith, 2013; Zito, 2009). Similarly, students who meet benchmark on the ACT have a higher likelihood of being ready for college bearing courses without remediation (Clough & Montgomery, 2015).
The ACT scores are the most widely used assessment for college entry and predict a student’s readiness to succeed in college coursework (Harwell et al., 2016). The ACT incorporates knowledge and skills learned from courses studied during high school. Students, who do not participate in the rigorous coursework during high school, are less likely to meet benchmarks for The ACT or be college and career ready. These challenges may attribute to some students leaving school before obtaining a high school diploma. However, other factors may impact students’ decisions to leave high school prematurely; one such aspect may be intrinsic motivation, such as self-determination.

Various instruments assess self-determination. For this study, the AIR Self-Determination Scale Student version identified the self-determination level. The AIR Self-determination scale provided information on students’ self-determination capacity and opportunities to self-determine. The AIR Scale is based on a theory of “the self that explains how individuals interact with opportunities to improve their prospects of getting what they need and want in life” (Wolman et al., 1994, p. 4). People’s desire to use opportunities to improve their current situation in life is essential in making positive academic decisions. The self-determination scale assesses grades K-12 and with adults. IDEA also stressed the important of including self-determination as a strategy for transitioning student for post-secondary opportunities (Fielder & Danneker, 2007).

In a study involving special education teachers in North Dakota, the AIR Self-Determination Scale and other self-determination assessments were used to evaluate the effectiveness of self-determination for transition planning. Their findings were that the special education teachers understood and believed in the importance of teaching self-determination and using self-determination strategies (Askvig, Weathers, & Burt, 2013). The use of the AIR Self-
Determination Scale is aligned with legislative expectations for transition services for students with disabilities. Recently, Herron and Martin (2015) examined capacity and opportunity of middle school students using the AIR Self-Determination Scale to predict students’ grade point average, absences, and discipline. Their study found that the higher the capacity and opportunity scores, the greater grade point average, fewer absences, and fewer disciplinary infractions. The impact self-determination has on achievement was also projected for this study. Contrary to Herron and Martin, another study surveyed correlations between motivation and self-determined capacity and opportunity amongst student and teacher perspectives using the AIR Self-Determination Scale. Zorigian (2013) revealed mixed findings regarding self-determination. The perceptions of the teachers and students were conflicting and did not show results regarding achievement.

The AIR Self-Determination Scale has four different subscales with 24 questions divided into two sections related to things students do (capacity) and the other two sections relating to students’ opportunity for self-determination (Wehmeyer, Shogren, Palmer, Williams-Diehm, & Little, 2012). Each question is scored on a 5-point, Likert-type scale, which ranges from never (1) to always (5). The total number of points that can be received is 120. The reported reliability and validity of the AIR Self-Determination Scale are strong. Reliability of the instrument was assessed with alternative-item correlation for item consistency, a split-half test for the internal consistency of the instrument and a re-test measure of the stability of results over time (Wolman et al., 1994). Reliability of an instrument is the foundation of sound research techniques. The correlation coefficients for the alternative-item tests ranged from .91 to .98 (Mithaug, Campeau, & Wolfram, 2003; Zorigian, 2013). The AIR self-determination scale was validated through factor analysis using capacity, home-school, knowledge, and ability. The variance of the four
factors was 74.0%. The capacity variance was 42.4%, home-school was 17.2%, opportunity was 10.3%, and knowledge-ability was 4.1% (Mithaug et al., 2003). The alpha reliability coefficient for the capacity subscale which consist of Things I Do and How I feel was .824 (Herron & Martin, 2015).

The ACT measured the achievement level in this study. The ACT uses empirical data, which extend to post-secondary education to assess college and career readiness. The ACT is also linked to actual student performance in college courses and to descriptions of what students need to know and be able to do in college (ACT, 2015). The ACT assesses the achievement of college readiness in English, mathematics, reading, and science. The ACT has 215 multiple choice questions. The benchmark scores for The ACT determine the probability for one that is ready to complete credit-bearing courses. The composite scores of The ACT are on a scale of 1 to 36. The composite score is the average of the English, mathematics, reading, and science. The assessment also contains an optional writing portion, which does not affect the composite score. Additional information collected by The ACT includes high school courses and grade, extracurricular activities, educational and career aspirations, and special educational needs (ACT, 2014).

Reliability is determined for The ACT by the Standard Error of Measurement (SEM) or the amount of inconsistency in the scores on the test. For the composite score, the SEM is +/-1. The SEM has a scale score reliability of .92 across multiple forms (ACT, 2015; Hudson, 2015). “The ACT describes its construct validity regarding predicative validity and reports median multiple correlation indices of .42 as valid predictors of overall first year grade point average in college” (Hudson, 2015, p. 65). The use of The ACT fits the goal for all students to be college
and career ready. The ACT reviews for validity and fairness annually (ACT, 2015). Thus, The ACT scores correlate to students’ level of readiness for real-world tasks.

Numerous studies examine the use of The ACT. Harwell, Moreno, and Post (2016) studied the relationship between The ACT College Mathematics Readiness Standard and college mathematics achievement. Harwell et al. (2016) tested the type of coursework completed by students passing their first college class. Findings showed students who scored 22 or higher on The ACT mathematics test had a high probability of passing the first college math class. Another study compared The ACT benchmark scores to measure the effectiveness of the Advanced Via Individual Determination (AVID) program. In this study, the AVID program increased college and career readiness for the students in the high schools used in the study (Eley, 2014). The ACT influences high schools and colleges across the nation in determining college readiness and success. Many states use The ACT to meet federal guidelines regarding high school performance as well.

**Procedures**

After receiving approval from the dissertation committee, Liberty’s Internal Review Board (IRB) (See Appendix A) in July 2016, the developer (posted for public use via the Internet) of the AIR Self-Determination Scale (See Appendix B), and the school district research committee in June 2016, the researcher met with the school principals for Schools A and B in June and other designated staff members to discuss the best way to retrieve demographic data and to conduct the administration of the AIR Self-Determination Scale with minimal disruptions or inconveniences. The agreed upon and readily available demographic data provided by the schools at the time of the study were gender, ethnicity, and the disability classification. The researcher provided consent forms to the schools (See Appendix C) for 12th grade students with
disabilities to participate in this study. The high school with the largest number of students in the district did not participate in the study. The number of students administered The ACT in Spring 2016 was approximately 1,103 for the two schools in this study. Sixty-Two (62) students with high incident disabilities were administered The ACT. Twenty-Three (23) of the 12th grade students were students with severe disabilities. These students with severe disabilities did not participate in The ACT and were administered an alternative assessment due to their cognitive levels. The participants for this study were recruited from a population of sixty-two (62) students with disabilities from two of the three high schools in the district. Five (5) students from the two high schools did not qualify to participate in the study because they were fifth-year seniors and did not participate in the 2016 administration of The ACT testing. Recruitment for this sample indicated six (6) students were ineligible to participate because they were not on track to graduate on-time with their peers and did not have the number of credits to be classified as a twelfth grader. In addition, eight (8) students with disabilities who entered high school with this cohort were no longer enrolled at these schools. The sample was reduced after 16 students with severe disabilities were removed from the population because they did not participate in The ACT testing due to their cognitive level. In all, 46 consent forms were sent out for students to participate in the study. Consent forms were sent home with students the first week in November of 2016 with a request to return the forms within five days. A second set of consent forms were sent home with students who did not return the forms initially the second week of November 2016. Consent forms were sent home each week repeatedly with students who did not return their forms until the last week of November 2016. The consent forms were sent home with students for four weeks and three attempts were made with each student. The students returned the consent forms to the Special Education Department Chairs at each school. After the
consent forms were returned, the department chairs selected the last week of November 2016 through the first week of December 2016 to administer the AIR Self-Determination Scale. A total of 30 (65.2%) students had consent to participate in the study. This sample size met the minimum requirement for a correlation research method (Creswell, 2007).

The students who were eligible to participate in the study completed the paper-pencil form of the AIR Self-Determination Scale, which took approximately 20 to 30 minutes during the last week of November 2016 through the first week of December 2016 on multiple dates. One special education teacher from School A and three special education teachers from School B administered the AIR Self-Determination Scale to students based on accommodations outlined in the students’ IEP. The students were familiar with the teachers who administered the assessment. The teachers followed the normal directions provided on the AIR Self-Determination Scale. The teachers who administered the AIR Self-Determination Scale also scored the AIR Self-Determination Scale based on the profile section of the form. No rater training was needed for this assessment. After the students completed the assessment, a designated staff member from each high school compiled a spreadsheet, which contained the students’ generic identification numbers, demographic data, and ACT scores from archival data. The researcher received this data without identifying information.

The researcher did not anticipate any known risks for the participants in this study. The students were assigned unique identification numbers, so that names and student identification numbers could be removed before data analysis to ensure the privacy of participants. The researcher completed the Collaborative Institutional Training Initiative (CITI), which provided training on conducting research with students. All data collected will be kept on the researcher’s password-protected computer. All corresponding notes will be kept in a locked file cabinet. The
researcher will shred all written documents related to this study after three years. Any information saved on the computer, other electronic media, and storage devices will also be removed after three years.

**Data Analysis**

Descriptive and demographic statistics were used in this study. The Pearson Product-Moment Correlation (Pearson’s $r$) analyzed the raw scores initially from the AIR Self-Determination Scale and the ACT to answer the research questions. Gall et al. (2007) explained the following regarding the Pearson’s $r$:

[It] is computed when both variables that we wish to correlate are expressed as continuous scores presuming the data is normally distributed. Product-moment correlation is one of the most widely used bivariate correlation technique because most educational measures yield continuous scores and because $r$ has a small standard error. (p. 347)

The strength of the two variables was determined by how close the coefficients were to -1 or +1. The closer the value is to -1 or 1, the stronger the linear relationship. If the correlation is zero, there is no linear relationship (Mukaka, 2012). Data were screened for normality with skewness and kurtosis statistics in SPSS. Since these data were not distributed normally, the Spearman’s rho was used to correlate the two variables based on ranking. The Spearman rho down-weighted extreme scores (Howell, 2008).
CHAPTER FOUR: FINDINGS

Overview

Chapter Four is organized by a discussion of the sample demographics, descriptive statistics, data screening, research questions, hypotheses, and conclusions. The purpose of this study was to determine the relationship between (a) self-determination and college readiness and (b) self-determination and career readiness of students with high-incident disabilities. At the time of data collection, various studies on improving the graduation rate were available. However, limited studies focused on increasing college and career readiness for students with disabilities, particularly using the American Institute for Research (AIR) Self-Determination Scale.

Research Questions

This study was designed to answer the following questions:

RQ1: Is there a relationship between overall AIR Self-Determination Scale scores and ACT scores?

RQ2: Is there a relationship between students’ capacity subscale scores on the AIR Self-Determination Scale and ACT scores?

Null Hypotheses

The null hypotheses for this study were:

H₀1: There is no relationship between overall AIR Self-Determination Scale scores and ACT scores.

H₀2: There is no relationship between students’ capacity subscale scores on The AIR Self-Determination Scale and ACT scores.
Descriptive Statistics

The ACT composite score ranged from 12 to 18 ($M = 13.93$, $SD = 1.39$) for the students with disabilities in this study. Students were considered college and career ready if they scored an 18-composite score or higher. The level of self-determination ranged from 60 to 106 ($M = 89.47$, $SD = 13.96$). The highest score that can be obtained on the self-determination scale is 120. The mean score for the level of self-determination was 89.47, which was relative strength. The level of self-determination capacity ranged from 25 to 57 ($M = 45.37$, $SD = 8.52$). The capacity subscale relates to what students do to promote self-determination. The subscale also considered the students’ perceptions of how they felt when they performed a skill (Herron & Martin, 2015). The overall mean score for self-determination (89.47) and mean score the subscale for capacity (45.37) had a significant gap. Students who have a high level of self-determination typically have a commensurable level of self-capacity. However, Eisenman, Pell, Poudel, and Pleet-Odle (2015) suggested, "Individual student capacities such as general intellectual functioning influence self-determination" (p. 101). Descriptive statistics from the sample are presented in Table 3.

Table 3

<table>
<thead>
<tr>
<th>Variable</th>
<th>Minimum</th>
<th>Maximum</th>
<th>$M$</th>
<th>$SD$</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACT Composite Score</td>
<td>12</td>
<td>18</td>
<td>13.93</td>
<td>1.39</td>
</tr>
<tr>
<td>Level of Self-Determination</td>
<td>60</td>
<td>106</td>
<td>89.47</td>
<td>13.96</td>
</tr>
<tr>
<td>Self-Determination Capacity</td>
<td>25</td>
<td>57</td>
<td>45.37</td>
<td>8.52</td>
</tr>
</tbody>
</table>

The ACT composite mean score for School A was 20.2, School B was 18.9 and the average mean score for the two schools was 19.6 for all the students who took The ACT. The mean
score for the thirty (30) students in this sample was 13.96. The ACT composite score benchmark is 18. The students’ mean score in this sample showed a 5.59 difference from the two schools’ mean and 4.4 difference from meeting benchmark on The ACT. Table 4 compares the mean scores of The ACT.

Table 4

*Mean comparison of School A, School B, School A & B, and the Sample*

<table>
<thead>
<tr>
<th>ACT Composite Mean Scores</th>
<th>School A</th>
<th>School B</th>
<th>School A + School B Mean</th>
<th>Sample Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>20.2</td>
<td>18.9</td>
<td>19.55</td>
<td>13.96</td>
</tr>
</tbody>
</table>

**Results**

**Assumption Tests**

It was originally proposed that the Pearson r be conducted on these data. The Pearson r tests the tendency or pattern of data to see the linear relationship between variables (Creswell, 2007). Because of the nonnormality of the scores distributions, the Spearman’s rho was conducted. The Spearman’s rho is used to screen data that does not fit the bell shape (Creswell, 2007). However, the results were similar to that of the Pearson r. Therefore, the Pearson r correlation coefficients as well as the Spearman rho were reported.

Data were screened for normality with skewness and kurtosis statistics. The skewness screening examines if the scores pile towards one end of the scale and taper slowly towards the other end of the scale (Creswell, 2007). Normal distribution follows a normal curve. The kurtosis tests for scores piling up at the middle or spreading out to the sides (Creswell, 2007). In
SPSS, when the absolute values of the skewness and kurtosis coefficients are more than two times their standard errors, the distributions are not normal. Two out of the three distributions were not normal. The distributions for ACT composite score and self-determination capacity were outside the range of normality, whereas the distribution for self-determination was normal. However, this was to be expected because of the small sample size (Warner, 2013). Table 5 indicates skewness and kurtosis coefficients.

Table 5

*Skewness and Kurtosis Coefficients*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Skewness Statistic</th>
<th>Skewness Std. Error</th>
<th>Kurtosis Statistic</th>
<th>Kurtosis Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACT Composite Score</td>
<td>1.78</td>
<td>.427</td>
<td>3.44</td>
<td>.833</td>
</tr>
<tr>
<td>Overall Level of Self-Determination</td>
<td>-0.664</td>
<td>.427</td>
<td>-0.877</td>
<td>.833</td>
</tr>
<tr>
<td>Self-Determination Capacity subscale</td>
<td>-0.885</td>
<td>.427</td>
<td>.047</td>
<td>.833</td>
</tr>
</tbody>
</table>

**Research Questions and Hypotheses**

Two research questions and two associated hypotheses were formulated for investigation. They were as followed:

**RQ1:** Is there a relationship between overall AIR Self-Determination Scale scores and ACT scores?

**H01:** There is no relationship between overall AIR Self-Determination Scale scores and ACT scores.

**RQ2:** Is there a relationship between students’ capacity subscale scores on the AIR Self-Determination Scale and ACT scores?

**H02:** There is no relationship between students’ capacity subscale scores on the AIR Self-Determination Scale and ACT scores.
A correlation matrix for the variables of interest shows the correlation coefficients calculated using the statistical formula for Pearson $r$ computed by SPSS is presented in Table 6.

Table 6

*Correlation Matrix for Pearson $r$*

<table>
<thead>
<tr>
<th>Variable</th>
<th>ACT Composite Score</th>
<th>Overall Level of Self-Determination</th>
<th>Self-Determination Capacity Subscale</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACT Composite Score (1)</td>
<td>___</td>
<td>.19</td>
<td>.29</td>
</tr>
<tr>
<td>Overall Level of Self-Determination (2)</td>
<td>___</td>
<td>___</td>
<td>.90***</td>
</tr>
<tr>
<td>Self-Determination Capacity Subscale (3)</td>
<td>___</td>
<td>___</td>
<td>___</td>
</tr>
</tbody>
</table>

$N = 30$, ***$p < .001$, two-tailed

*** note that the value is outside the critical values.

A correlation matrix for the variables of interest shows the correlation coefficients calculated using the statistical formula for Spearman’s rho computed by SPSS is presented in Table 7.

Table 7

*Correlation Matrix for Spearman’s Rho*

<table>
<thead>
<tr>
<th></th>
<th>ACT Composite Score</th>
<th>Overall Level of Self-Determination</th>
<th>Self-Determination Capacity Subscale</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACT Composite Score</td>
<td>___</td>
<td>.26</td>
<td>.28</td>
</tr>
<tr>
<td>Overall Level of Self-Determination</td>
<td>___</td>
<td>___</td>
<td>.87***</td>
</tr>
<tr>
<td>Self-Determination Capacity Subscale</td>
<td>___</td>
<td>___</td>
<td>___</td>
</tr>
</tbody>
</table>

$N= 30$, ***$p<.01$

*** note that the value is outside the critical values.
Research Question One/Hypothesis One

Is there a relationship between AIR Self-Determination Scale scores and ACT scores?

\( H_{01} \) stated there is no relationship between the overall AIR Self-Determination Scale scores and ACT scores. There was no significant relationship between the overall AIR Self-Determination Scale scores and ACT scores, \( r (28) = .19, p = .319 \), two-tailed; \( r_s (28) = .26, p = .165 \), two-tailed. Therefore, the null hypothesis was not rejected.

Research Question Two/Hypothesis Two

Is there a relationship between students’ capacity subscale scores on the AIR Self-Determination Scale and ACT scores?

\( H_{02} \): There was no relationship between students’ capacity subscale scores on The AIR Self-Determination Scale and ACT scores, \( r (28) = .29, p = .119 \), two-tailed; \( r_s (28) = .28, p = .128 \), two-tailed. Therefore, the null hypothesis was not rejected.
CHAPTER FIVE: CONCLUSIONS

Overview

The purpose of this chapter is to discuss the findings, implications, limitations, and recommendations for future research on increasing college and career readiness for students with disabilities, particularly using the American Institute for Research (AIR) Self-Determination Scale. This chapter contains the discussion, conclusions, implications, limitations of this study, and recommendations for future research.

Discussion

The purpose of this correlation study was to determine the relationship self-determination has on college and career readiness of students with high incident disabilities. This study addressed the gap in the literature on self-determination and its impact on achievement. Though this study did not close the gap in literature, it added literature regarding overall self-determination and self-determination capacity. This study also examined specifically the relationship between (a) the overall AIR Self-Determination Scale Score (Student Version) and The ACT composite scores and (b) the relationship between students’ self-determination capacity subscale and The ACT composite scores. The theoretical framework suggested students who possessed high levels of self-determination have more positive outcomes. Self-determination enables students to have more intrinsic skills, which lead the students to make choices to become college and career ready. Examining the self-determination theory provided evidence of the effect self-determination and academic achievement have on college and career readiness. The literature pointed out that the graduation rate is increasing for all students. However, the achievement and graduation gaps are widening between students with disabilities and their nondisabled peers (DePaoli et al., 2017). The results of this study showed low capacity
and substantially low composite mean scores on The ACT. There is a need for more access for students with disabilities to rigorous curriculum and instruction which develop self-determination to close the gap between the subgroup.

This study addressed two null hypotheses with the following results:

**Ho1:** There is no relationship between overall AIR Self-Determination scores and ACT scores. There was no significant relationship between overall AIR Self-Determination scores and The ACT scores. The null hypothesis was not rejected.

**Ho2:** There is no relationship between students’ capacity subscale and ACT scores. There was no relationship between students’ capacity subscale and ACT scores. The null hypothesis was not rejected.

**Self-Determination and The ACT Scores**

In the literature review, self-determination has a relationship to higher academic performance, and The ACT has a strong connection to whether students are ready to complete college bearing courses (Fowler et al., 2014). Contrary to the literature, the association between self-determination and The ACT scores in this study was not statistically significant, which resulted in the failure to reject the null hypothesis ($r [28] = .19, p = .319$, two-tailed). At the time of data collection, literature lacked studies that compare the variables this study examined. Literature indirectly supported the belief of practitioners that self-determination had a relation to successful performance for persons with disabilities (Washington et al., 2012). A disconnect between self-determination and the achievement level of students with disabilities was revealed in this study. The self-determination mean score for this sample showed these students could make appropriate choices and were aware of their goals and ability. Although these students’ motivation assets were high, they did not appear to facilitate their optimal functioning (Jang et
al., 2016). This could have been impacted by their disability. The results from this study did not support Martin, Van Dycke, D’Ottavio, and Nickerson (2007) that reinforced the impact self-determination skills had on students with disabilities. Their research disclosed that self-determination had a positive effect on academic performance, employment, goal setting, and disability awareness. Because of the amount of literature supporting the implementation of self-determination within the curriculum, IDEA directed practitioners to incorporate self-determination along with transition services for students with disabilities. This study confirmed that varied results come from studies regarding self-determination and achievement. Earlier in literature Zorigian (2013) also showed that teachers and students’ perception were conflicting and did not show results regarding achievement. Additional research and replication of studies are needed to close the gap in the literature regarding self-determination and academic achievement particularly using ACT scores for students with disabilities.

The lack of normal distribution of ACT composite scores indicated that this sample population’s results could only be applied to the targeted group. The ACT composite mean score for this study was 13.93, which fell below the State of South Carolina’s mean score of 18 (ACT, 2015). The overall mean scores from this sample group also indicated the students in the sample were not college ready and needed significant supports academically to close the achievement gap between their nondisabled peers. The sample’s mean score of 13.93 indicated the students were not ready for college bearing courses and their skills were inadequate (Fowler et al., 2014). These inadequacies can lead to students not completing high school and not prepared for the workforce. The low performance scores suggested the students were not exposed to the appropriate curriculum to meet The ACT standards (Harwell et al., 2016).
The ACT benchmarks are positively associated with academic rigor and higher levels of achievement. Although the self-determination score distribution is normal, the scores were not strong enough to compensate for the rigorous academic skills needed to be successful on The ACT. Earlier in the literature, low academic performance affected students’ ability to self-determine when they encounter obstacles such as low performance on The ACT. Thus, awareness of such low performance may affect these students’ willingness to continue their education. This choice may also hinder the students’ ability to become college and career ready.

**Capacity and The ACT Scores**

Capacity influences students’ ability to perform at a high achievement level. Students’ perceived capacity to demonstrate self-determined behaviors affects their confidence and their drive to become college and career ready. In this study, the association between students’ capacity and ACT scores was not statistically significant, which resulted in failure to reject the null hypothesis ($r [28] = .29, p = .119$, two-tailed). In addition, the self-determination capacity and The ACT scores did not possess normal distribution. The lack of normality in the distribution was caused by the small sample size (Warner, 2013). At the time of data collection, no specific studies compared the results for capacity and ACT scores. Conversely, Herron and Martin (2015) emphasized the impact capacity had on grade point averages, attendance, and disciplinary infractions. Students who possess high capacity are predicted to have higher academic achievement and the ability to demonstrate the self-determined behavior. As mentioned earlier in the literature review, students who score benchmarks on English, 18; math, 22; reading, 22; and science, 23 are ready for college-bearing coursework (ACT, 2015). In this study, the maximum ACT composite score was 18. This score fell slightly below the composite score of score of School B, which had an overall composite score of 18.9. Based on the State of
South Carolina’s ACT composite score mean, this score indicated a participant in this study is college and career ready. This student is more likely to enter college or the workforce with fewer challenges. The overall mean score for The ACT composite scores is the lowest mean of all the variables in this study. However, two students scored 18 on the English sub-test, which met the benchmark. None of the students met benchmark on the math, reading, or science ACT subtests. Such a low mean score for the ACT composite scores denoted that most of the students in this study were not college and career ready.

The findings from this study implied that other factors might have influenced the outcomes. A factor, which must be considered, is that the participants in this study were identified as students with disabilities. The challenges, which their disabilities impart, may have affected their self-determination level as well as their achievement level. Although these are factors to be considered, best practices still suggested a need exists for improving self-determination skills and interventions to close the gap between the achievement of students with disabilities and their nondisabled peers. The discrepancy between the dropout and completion of high school rates for students with disabilities and their nondisabled peers remains a great concern.

According to DePaoli, Balfanz, Bridgeland, Atwell, & Ingram (2017), the nation’s graduation rate is steadily increasing. Although, the graduation rate increases nationally, the gap between students with disabilities and their nondisabled peers’ graduation rate is widening. DePaoli et al. (2017) revealed that thirty-three states reported less than 70 percent of students with disabilities graduate on time as compared to 80 percent of their nondisabled peers. More research is needed regarding preparing all students to become college and career ready, particularly those with disabilities. Evaluating access to the regular curriculum and exposure to
rigorous instruction can help students with disabilities to meet benchmarks on the ACT and acquire skills to become college and career ready. Incorporating instructional activities, which focus on goal setting/attainment, choice making, problem-solving, and self-regulation, may also make a difference in students’ attainment of the general curriculum (Chou, Palmer, & Skorupski, 2017). Another way to increase student performance to become college and career ready is through systematic monitoring, which addresses student engagement, attendance, and building relationships with supportive adults.

Eisenman et al. (2015) also validated that consideration regarding student attendance, academic engagement, and supportive relationships increased the likelihood that students developed resilience, persisted in school, and experienced viable career options. Both disabled and nondisabled students face hardships, such as lack of employment and substandard health, and are more likely to participate in criminal behavior when they do not graduate from high school. They also do not acquire the college and career readiness skills needed for today’s global economy. Many students’ struggles are in academic achievement, absenteeism, out of school suspension, and alienation, which reduce connectedness to school, engagement, and high academic performance. Results from this study revealed that the students in this sample may face greater challenges because of their low academic performance on the ACT despite having a relative strength in self-determination.

Implications

For all that is known about the impact self-determination has on positive outcomes for students, this study did not support the theory. In this study, the lack of statistical significance between the ACT scores and AIR Self-Determination Scale scores and The ACT and students’ capacity showed that further research is needed regarding the current implementation of self-
determination skills for students with disabilities. Literature specifically regarding the ACT scores and students with disabilities needs to be examined further. Although this study did not reject the null hypotheses, the use of self-determination continues to be on the rise as a best practice in transition education for students with disabilities.

The overall self-determination score mean was higher than the self-determination capacity subscale. Practitioners place significant trust in the value of self-determination. In addition, IDEA and current legislation reinforced the demand to teach self-determination skills to students with disabilities. At the time of data collection, the management of the schools who participated in the study concentrated on tweaking the transition goals by using measurable postsecondary goals, age appropriate transition assessments, and transition services. They also thoroughly monitored the students’ current courses. As a result of proponents to increased self-determination skills, teacher training was a responsibility for school districts and schools to provide practitioners. Training must focus on strategies that support students with disabilities in the regular curriculum, problem-solving skills, goal setting, self-management, and self-advocacy. Priority must be given to helping students develop high levels of self-determination and college and career readiness skills with students with disabilities to become productive citizens (Zito, 2009).

A gap between The ACT scores of students with disabilities and their nondisabled peers continues. In this study, The ACT Composite Scores ranged from 12 to 18 whereas the average ACT Composite Scores for School A was 20.2 and School B was 18.9. At least one student in this study scored an ACT Composite Score of 18. This student was only nine-tenths of a point away from the average composite score of School B and fell within the State of South Carolina’s mean. Comparing this student’s performance to the overall sample in this study, he had smaller
gaps than did other students in the sample as compared to academic achievement. This student with disabilities performed at a commensurable rate to his nondisabled peers. The student was identified as a high functioning student on the autism spectrum.

A disparity also existed between the overall schools’ ACT mean scores. The overall self-determination mean scores in the study showed that most of the students in this study were capable of making choices, which affected them academically. In addition, they were expected to possess college and career readiness skills. Conversely, the self-determination mean score indicated these students’ knowledge, abilities, and, perhaps, their perceptions of themselves allowed them to be self-determined (Wolman et al., 1994). This study pointed out that purposeful strategies must be used with academics to help students with disabilities to overcome obstacles that hinder them from becoming high school graduates and college and career ready.

This study and previous research indicated that further expansion of literature is needed regarding The ACT and self-determination, particularly regarding students with disabilities. Wehmeyer et al. (2012) conferred that there was considerable progress in research and intervention to promote self-determination. This study also showed cause for more literature on strategies to close the achievement gap between students with disabilities and their nondisabled peers.

The results of this study were inconsistent with the construct of the self-determination theory. The results implied that additional approaches are required to prepare students with disabilities to become college and career ready. Furthermore, additional methods should be examined to close the academic and graduation rate gaps of students with disabilities and their nondisabled peers. Considerations should include accommodations, which support students with disabilities in the regular curriculum, aligning students’ interests, and preferences with course
work and blending special education services seamlessly (Eisenman et al., 2015). Ultimately, schoolwide collaboration on best practices can lead to better outcomes.

In the literature review, Public Law 94-142, IDEA, and the reauthorization of the ESEA required interventions to address the dropout rate for both disabled and nondisabled peers. These legislations stress the importance of becoming college and career ready and transition to post-secondary education. As a result, access to the curriculum and effective dropout prevention programs with strategies must be formed to increase academic achievement and produce career and college ready students. Effective strategies from the National Dropout Center along with legislations that advocate training for dropout prevention to combat students leaving high school without a diploma must be addressed with a sense of urgency (Smink & Schargel, 2013).

**Limitations**

**Small Sample Size**

This study encountered a few limitations. The most impactful limitation was the small sample size. Because of the small sample size, the distribution of data was not normal and did not follow the pattern of a normal curve. However, the sample size met the minimum requirement for a quantitative sample. The results of this study did not reject the null hypotheses and were noted not to be statistically significant. Obtaining a larger sample size may have achieved a normal distribution of scores and resulted in statistically significant results.

**Archival Data**

A second limitation was the use of archival data. The researcher assumed that The ACT and self-determination scores were reported correctly, and the administration of the assessments did not compromise the validity and security of the tests. The researcher did not have control over the test administration conditions. Socioeconomic data were not provided to the researcher.
for the study because it was not readily available, nor agreed upon prior to district approval. Retrieving socioeconomic data should have been listed on the consent form for parents to grant permission for the additional data not provided at the teacher or department level. Access to the socioeconomic data may show the influence resources have on students’ achievement levels and self-determination. The sharing of additional variables may offer a more detailed profile of the students.

**Interrater Reliability**

The final limitation is that several teachers administered the AIR Self-Determination Scale Student Version to students with disabilities at varied performance levels. Training for the inter-rater reliability should occur in the future to maintain the inter-rater reliability of the instrument. Assurance of whether appropriate accommodations were administered to students was not controlled by the researcher. Nevertheless, the scores appeared consistent. Self-reporting by students was another threat to internal validity. The Special Education Teachers who administered the self-determination scale were more aware of the requirements for The ACT than the self-determination scale. Familiarity with both instruments may increase the teachers’ knowledge to develop strategies that impact academic achievement. It is also important for practitioners to become familiar with assessments for determining self-determination, because it is a part of transitioning planning for students with disabilities. Few of the Special Education Teachers in the selected sites were exposed to the instrument or used to the AIR Self-Determination Scale to collect data for preparing IEPs. Self-determination and transition planning are components of all IEPs. Therefore, it is important to equip teachers with tools to assess students’ ability to make wise decision, set goals, and develop relationships with peers and adults to obtain their goals.
Legislation and policies suggested that self-determination instruments be used for developing transition goals in the IEP. Recently, the district administrators from Special Services Department in the district this study occurred revisited the implementation of transition goals, which included goal setting, and college and career planning for students with disabilities. A committee was formed to disseminate information regarding self-determination and self-advocacy. The committee also found that administration of the AIR Self-Determination Scale or another self-determination scale multiple times throughout the year can determine if the students’ self-determination levels increase over time based on the strategies used in the classroom. The results can be beneficial for teachers to help students set short-term and long-term goals. Monitoring self-determination levels can help to improve academic achievement for students with disabilities.

**Recommendations for Future Research**

The results from this study were inconsistent with literature since the study focused on students with disabilities exclusively. The sample size impacted the results of this study the most and was not large enough to have a broader generalization. The results did not support the theory of self-determination and its impact on student achievement. The researcher expected the results to confirm the literature which stated that self-determination impacted academic achievement for the sample in the study. However, this study reaffirmed the discrepancy between the achievement of students with disabilities and their nondisabled peers. The study disclosed that the students with disabilities in this sample were not college and career ready. In addition, more academic support is needed for the students with disabilities to prepare them to become college and career ready.
This study used 30 students with disabilities in two of the three high schools in a school district. Future research should involve more high schools, which would produce a larger sample size. Increasing the sample size will present statistical significance and allow broader generalization. The larger sample size will also allow for normal distribution of data.

This study used students with disabilities classified as seniors based on the number of credits the students obtained. Future research should administer the AIR Self-Determination Scale and The ACT during the same cohort year as juniors. The administration of both instruments within the same school academic year may provide a larger sample size and offer a broader generalization. More frequent administering of the AIR Self-Determination Scale will help practitioners become more familiar with the scale and monitor students’ progress regarding goal-setting, transition, and self-determination more frequently. In addition, a normal distribution of scores may exist because the student will self-report their perception more accurately as they become familiar with the assessment.

This study analyzed ACT composite scores compared to the level of self-determination composite and the level of self-determination capacity subscale scores. Future research should include all components of The ACT and the AIR Self-Determination Scale. The practitioners can examine students’ areas of strengths on The ACT from the feedback reports as well as work on the students’ areas of weaknesses. In addition, the teacher, parent, and students’ versions of the AIR Self-Determination Scale should be used to triangulate data. Triangulating the data allows practitioners to review varied perceptions and discuss the similarities and differences from the different versions of the assessment with the students. The students will be able to determine if their perceptions correspond with the teacher and parents’ views. Additional
variables also can provide broader generalization and increase the importance of using self-determination as a best practice.

This study did not include qualitative data, which can be retrieved from the AIR Self-Determination Scale. Qualitative data describes trends from questions answered to determine the relationship between variables (Creswell, 2007). Qualitative data can be used for a mixed methods study. A mixed methods study uses qualitative and quantitative data. This type of study may provide an understanding of the students’ perception of their level of self-determination as well as insight regarding why such low self-reported capacity scores existed. Conducting a mixed methods study also offers both statistically significant and qualitative data. The additional data will increase generalization.

A need continues to exist to examine the relationship between ACT scores and self-determination. The dropout rate is decreasing, and the ACT scores are increasing each year. A gap remains between the graduation and academic achievement rates for students with disabilities and their nondisabled peers. Future research specifically addressing ACT scores and self-determination can be a valid predictor of curricular needs and strategies that can produce college and career ready students.

The results of this study indicated that self-determination and capacity did not have statistical significance on the ACT scores for students with disabilities. The researcher presumed up to 10% of the students from the sample would be college and career ready. These students face challenges that will impede their ability to graduate from high school on time and remain in school until completion with a high diploma. At the time of data collection, no other studies had investigated the same variable found in this study. However, self-determination literature is on the rise and contributes additional strategies for best practices. The literature and strategies
about self-determination must be shared with practitioners to meet the needs of all students, particularly students with disabilities. Future studies should consider including low incident students with disabilities and nondisabled students to show a broader generalization of factors that contribute to students making the decision to remain in school and become college and career ready from all populations. Conducting a comparison of low incident, nondisabled, and students with disabilities may also give information on trends, and gaps in achievement levels which can be addressed through the curriculum from all students. Legislation also supports the use of self-determination strategies to help students succeed academically. The momentum for future research on self-determination can improve academic achievement for both students with disabilities and their nondisabled peers. Additional research can close the graduation and academic achievement gap between students with disabilities and their nondisabled peers. Based on the findings from this study, the researcher plans to make educators aware of tools used to determine students’ level of self-determination to meet requirements for transition through a component of all IEPs. Also, completing a survey to assess practitioners’ awareness of self-determination can provide baseline data for a plan to equip to address students’ academic and social needs. Self-determination is also a skill that can be used by nondisabled peers. All students need to improve their decision making, goal-setting, and self-advocacy skills. Further study of self-determination and its impact on student achievement will positively impact instructional practices.
REFERENCES


Individuals with Disabilities Education Improvement Act, Part B Regulations, 34 C.F.R. §300.530-536 (2004).


www.ascd.org/publication/newletters/infobrieg/summer06/num46/toc.aspx


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APPENDIX A: LIBERTY UNIVERSITY IRB APPROVAL LETTER

LIBERTY UNIVERSITY
INSTITUTIONAL REVIEW BOARD

7/28/2016

Deitra Brown
IRB Approval 2435.072816: The Correlation between Students with Disabilities' Self-determination and ACT Scores

Dear Deitra Brown,

We are pleased to inform you that your study has been approved by the Liberty IRB. This approval is extended to you for one year from the date provided above with your protocol number. If data collection proceeds past one year, or if you make changes in the methodology as it pertains to human subjects, you must submit an appropriate update form to the IRB. The forms for these cases were attached to your approval email.

Your IRB-approved, stamped consent form is also attached. This form should be copied and used to gain the consent of your research participants. If you plan to provide your consent information electronically, the contents of the attached consent document should be made available without alteration.

Please retain this letter for your records. Also, if you are conducting research as part of the requirements for a master’s thesis or doctoral dissertation, this approval letter should be included as an appendix to your completed thesis or dissertation.

Thank you for your cooperation with the IRB, and we wish you well with your research project.

Sincerely,
APPENDIX B: APPROVAL FOR USE OF THE AIR ASSESSMENT

TEACHERS COLLEGE COLUMBIA UNIVERSITY
NEW YORK NEW YORK 10027

DEPARTMENT OF SPECIAL EDUCATION

The University of Oklahoma
Zarrow Endowed Professor of Special Education
Zarrow Center for Learning Enrichment
Carpenter Hall, Room 111
840 Asp Ave.
Norman, OK 73019

January 30, 2006

Dear [Name]

I am pleased that you can make the AIR assessments and User Guide available for download from your OU website. This will provide a valuable service to schools across the country.

You have my permission to place the AIR Educator, Parent, and Student assessment tools on the Zarrow Center web site for free downloading. You also have my permission to place the AIR User Guide on your web site for free downloading.

Respectfully,
CONSENT REQUEST LETTER TO PARENT OR GUARDIAN AND PARTICIPANT

Dear Parent or Guardian,

Your child, __________________________________is invited to participate in a voluntary research study on the relationship of self-determination and ACT scores. Some students were selected as possible participants because I am surveying graduating seniors completed The ACT in spring 2016. I ask that you read this form and ask any questions you may have before agreeing to be in the study.

This study is being conducted by Deitra Brown through the Education Department of Liberty University for the purpose of a Doctoral Dissertation.

Background Information:

The purpose of this study is to test if there is a relationship between self-determination and ACT scores.

Procedures:

If you agree for your child to be in this study, I would like to obtain the ACT scores of your student along with demographic information and would ask him/her to do the following things, during a designated time assigned by the school principal:

1. Read carefully the instructions of the AIR Self-Determination Scale.
2. Complete the AIR Student Self-Determination Scale which will take approximately 20 to 30 minutes.

Risks and Benefits of being in the Study:

The risks of this study are minimal and they are no more than the risk a participant would encounter in everyday life. Participation in this study have no direct benefits; however, as the
relationship is researched and find prevalent, educational programs will be able to focus more on student achievement from all aspects of the curriculum, thus adding the effect of self-determination skills.

**Compensation:**

There will be no compensation for participating in this study.

**Confidentiality:**

The records of this study will be kept private. In any sort of report I might publish, I will not include any information that will make it possible to identify a subject. Research records will be stored securely and only the researcher will have access to the records. The information gathered will be stored on a password secured flash drive.

**Voluntary Nature of the Study:**

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Liberty University or [redacted]. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

**Contacts and Questions:**

The researcher conducting this study is Deitra L. Brown. You may ask any questions. If you have questions, you are encouraged to contact her, dlbrown5@liberty.edu or the chair of her dissertation committee Dr. Angela M. Smith, amsmith11@liberty.edu.

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, you are encouraged to contact the Institutional Review Board, 1971 University Blvd, Suite 1837, Lynchburg, VA 24502 or irb@liberty.edu.

You will be given a copy of this information to keep for your records.
Consent Statement:

I have read and understand the above information. I have asked questions and have received answers, if needed. I do consent to participate in the study.

Students that are 18 years of age or older, do not need to sign or have their parents sign the consent form; however, you may keep the consent form for your records.

Participant’s Signature: _________________________________ Date: ________________

Signature of parent or guardian: _______________________ Date: ________________

(If minors are involved)

Signature of Investigator: __________________________ Date: ________________

IRB Code Numbers: 2435.072816

IRB Expiration Date: 7/27/17