FROM AT-RISK TO GRADUATION: A CAUSAL COMPARATIVE STUDY OF MENTORING THE AT-RISK STUDENT WITH THE JAG MODEL

by

Stacy Lynn Bishop Carlton

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

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ABSTRACT

It is imperative for students to graduate career-ready in order to enter the employment field and fill this gap. This research examined a non-experimental causal-comparative quantitative study of at-risk students and their career readiness upon graduation. The effectiveness of Jobs for America's Graduates (JAG) mentoring program was analyzed to determine the impact of career readiness among these at-risk students. A comparison of the data of at-risk students enrolled in the JAG program versus at-risk students not enrolled was compared to determine their career-readiness skills upon graduation. A review of the research showed that early intervention significantly increased the success of at-risk students by implementing options in the areas of parental involvement, mentoring programs, and career readiness. Worldwide Interactive Network (WIN) assessment scores was the tool used to determine the effectiveness of the JAG program in career readiness. A convenience sampling method of 106 at-risk third-year students was examined. Three independent samples *t* tests were used to determine the differences in mean scores for the two groups. This study's conclusion yielded two out of three null hypotheses being rejected which revealed that the JAG program had significantly better scores on the WIN career assessment in Reading for Information and Locating Information. The WIN Applied Mathematics portion of the assessment showed the JAG students' mean scores as being lower than their at-risk peers thus recommending a future study of these findings.

Keywords: at-risk, struggling student, WIN Learning, career readiness, mentor program

Copyright Page

Dedication

I dedicate this dissertation and the last several years of my life to my wonderful husband, Brian, and to my two handsome sons, Kane and Kaden. These three men mean more to me than anyone else in the world and I am so blessed to be chosen by God to be in their lives. They have been my biggest cheerleaders and my compass to keep me going in the right direction, which was always forward. Without their continued support and love, I would not have been able to achieve this great accomplishment. I wish these three all of life's blessings that God has for them and may they find every good favor that is allotted to them. I love them with all of my heart.

I also want to dedicate this dissertation to my parents, Bill and Sandra, who have instilled in me the love of God and the characteristics to never give up on my dreams but to always strive for excellence. I am in awe of them and their dedication to family and to God, and I continue to aspire to be more like them daily. They have offered words of advice, encouragement and love to keep me on the right path from birth until now. Again, I am so blessed that God chose them to be my parents. I could not have picked them better.

Most importantly, I dedicate this dissertation to my Savior and Lord, Jesus Christ. Without God, I am nothing and I will continually praise Him forever. My favorite passage in scripture, "Do not be anxious for anything, but in everything, by prayer and petition, with thanksgiving, present your requests to God. And the peace of God, which transcends all understanding, will guard your hearts and your minds in Christ Jesus" (Philippians 4: 6-7, NIV). Throughout my life and this journey, these words have comforted me and reminded me that God has walked this path with me daily. To Him be all the Glory, Forever!

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I would like to express my thankfulness to my friends, Heather, Karen, Patty and Eric who listened when I just needed to vent. Thank you so much Heather for your countless hours of editing that you sat through with me and for always reminding me that I could do it. Heather is a master editor and I highly recommend her services to everyone. Karen, you offered a wealth of knowledge on dissertation writing because you mastered this process years ago. Patty, thank you for your friendship and support. Eric, you were my partner in crime and you were going down this path with me. Thank you for not letting me give up and for the many "unanswered" phone calls that you made to me to tell me to keep going. I appreciate you all.

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List of Abbreviations

Grade Point Average (GPA)

Jobs for America's Graduates (JAG)

Socio-Economic Status (SES)

Worldwide Interactive Network (WIN)

CHAPTER ONE: INTRODUCTION

Overview

When schools implement mentoring programs, the at-risk students build the foundation they need to grow into healthy, successful adults. Mentoring this population of students changes the trajectory and dynamics of each student's life and the changes that occur can impact the student for the rest of their lives. This study sought to determine whether the readiness to work assessment, Worldwide Interactive Network (WIN), of at-risk students was different when they are participating in the Jobs for America's Graduates (JAG) mentoring program compared to their at-risk peers who were not enrolled in a mentoring program.

Background

Each year, more than one-half million students drop out of high school in the U.S. which equates to nearly 1500 students a day leaving school forever (Miller, 2019). In the 2018-2019 school year, 15.4% of all high school students dropped out as stated by the U.S. Department of Education (2019). Of these dropouts nearly 95% became a statistic of poverty households and will earn $200,000 less over their lifetime than their high school graduate peers (NCES, 2019). Nearly 83% of people incarcerated in the U.S. are high school dropouts according to the U.S. Census Bureau (2020). However, with a 10% increase in high school graduation rates, in the at-risk community, could result in a 9% decline in criminal arrest rates and an increase in as much as $2 billion in taxable income for this population of young people (NCES, 2019). This problem of drop outs and at-risk students continues to plague school systems and communities and needed to be addressed (Wilkins & Bost, 2016).

The current issues of the dropout rates can be traced back to the late 1800s and therefore creating a path to oversee the education system. In 1979, the Federal Department of Education

was established by Congress to track education patterns in the United States (Koser, 2017). Koser (2017) states that education was much different in the 1800s with the lack of transportation, small rural schools, and shorter school years. During this time, it was quite common for students to stop attending school to work on their farms or learn a trade to support their families (Koser, 2017). By the late 1900s and early 2000s, as dropout rates were tracked, students who dropped out of school became a burden on their families and society by living in poverty or turning to criminal activities to support their lifestyles (Imran et al., 2018). The workforce needed skilled workers, contrary to the past, and hence education become more of a priority after 1971 (Hutchins & Akos, 2013). In the mid-1970s, trade and technical schools became more prevalent, and some of these schools continue today due to the high demand for jobs requiring technical certifications with the high school diploma (U.S. Department of Education, 2019).

The at-risk student, who drops out of high school, is twice as likely to live in poverty as their peers that graduated high school (U.S. Department of Education, 2019). Kaufman and Bradberry (1992) describe the at-risk student as having failing grades in school, particularly in math and reading, and traditionally drops out of high school before a determined career pathway is explored. Kaufman and Bradberry (1992) identified the primary barriers, including low socioeconomic status (SES), lack of parental involvement, and students with varying learning disabilities. According to the U.S. Department of Education (2019), 30.8% of non-graduating students live in low SES areas and become a burden on social welfare. Studies have shown that when there is a structured plan in place that focuses on achieving small goals to guide at-risk students, they have a greater chance of graduating high school and successfully becoming employed upon graduation (Duarte et al., 2014).

Even though the dropout rate has declined over the last 40 years, in 2019, there were 15.4% of high school students still not finishing school in the U.S. and unable to obtain a job that pays more than minimum wage (U.S. Department of Education, 2019). While Iowa had the lowest dropout rate of 9%, New Mexico reported a 28.9% rate, making it the highest dropout rate in the U.S. (U.S. Department of Education, 2019). In South Carolina (S.C.), the dropout rate is 12.9%, which is lower than the national average (S.C. Population, 2019). The poverty index in S.C. is approximately 16.01%, and of those in poverty, 29.23% have less than a high school diploma (S.C. Population, 2019). There are approximately 5.1 million citizens in S.C. with one-third living in poverty and who have not obtained a high school diploma.

Rumberger (2008) suggests that two sets of factors may predict whether students drop out or graduate from high school and are career-ready. The first factor is associated with the established dynamics of their families, schools, and communities (Rumberger & Lim, 2008). The breakdown of the family and flaws in the education system plagues the at-risk student population to the point of dropping out of school (Cismaru & Ivan, 2016). Nunez (2014) indicates that academic success and graduation rates are decreased when students come from families with minimal parental support when compared to their peers who have parental involvement in their education. Hernaes (2017) states that the socioeconomic status of the family and homelessness can be a predictor of high school dropout and, therefore; Hyman (2010) states that this creates a social barrier for the perceived at-risk student to be career-ready when they leave high school.

The second predictive factor is connected to the individual personality characteristics of the at-risk student. These characteristics include social skills, amount of school activities, and how they perceive themselves as an individual (Rumberger & Lim, 2008). When working with at-risk students, educators must understand the characteristics noticeable in these students,

observe their family dynamics, and offer them guidance to show them the importance of their high school education to their future career and financial stability (Nunez et al., 2014). Jobs for America's Graduates (JAG) is a mentoring program that uses an active investigation model in which educators seek to understand the student's background at home, their personality type, and learn firsthand how the student performs in the classroom (JAG National, 2019). Mentoring programs that support at-risk learners can make the difference that bridges the gap from dropout to graduation and helps these students to find their desired career pathway (U.S. Department of Education, 2019).

The JAG National (2019) program began in 1980 to help students who are at-risk overcome the barriers to graduate on time and have a positive outcome one year after graduation in their career choice. The JAG program eliminates barriers by implementing a well-developed structured program where each student is assigned a mentor that will provide support and guidance. When career-ready students reach their full potential, they contribute to society and thrive in their communities whereas; the at-risk students' lack of success would be a generational repeat of their ancestors (Ausikaitis, 2014; JAG National, 2019). There is a high prevalence of individuals without high school diplomas, which can be a hindrance to society (Wilkins & Bost, 2016). JAG has created a program to provide support to the at-risk student by offering a teacher mentor to help students succeed in high school and upon graduation (JAG National, 2019). The principle focus of this program is to help the at-risk student population to overcome the barriers that would lead to their dependence on government assistance programs. JAG is designed to aid students in finding a career path that fits their personality and interests. Each student will create a career pathway, which will become his or her goal upon graduation from high school.

According to the U.S. Department of Education (2019), approximately 41% or 4 out of every 10 students graduate within four years of entering high school due to the guidance of a mentor. Mentor programs offer academic support, monitor grades, and hold consistent meetings with students to keep them on track and help each student identify their preferred career path. Mentors can positively affect the student who is at-risk with minimal encouragement and informal relationships, which can lead to success after graduation (Ahrens et al., 2010). The U.S. Department of Education (2019) states the 2014-2015 school year saw an increase in graduation rates to 83.6% from 77% the prior year, which was due to mentoring students and supporting them to be career-ready upon graduation. Maxwell (2005) states the importance of having a goal-oriented process for at-risk students to succeed due to the negative impact a dropout can have on society. Poor attendance, misbehavior, and class failure are early warning characteristics of a student who may be at-risk (Staresina, 2011). To overcome these characteristics, Staresina (2011) states that a teacher-mentor program encourages and motivates at-risk students to succeed and graduate from high school. As a mentor, the teacher helps explore the problems that the individual at-risk student possesses, and as confirmed by Simoes and Alarcao (2014), teachers can change these hindrances into positive outcomes. As stated by Tyler and Lofstrom (2009), this struggle and lack of motivation from the at-risk population culminates over many years and is difficult to overcome. According to Vygotsky's (1980) social constructivism theory, the human construct of knowledge and its meaning are learned from experiences. Vygotsky’s (1980) study, while used in different times for the communist movement, still shows that it is essential for students to have programs to help them learn and grow. Teachers can mentor the at-risk students by using Vygotsky’s methods and instill the desire to create positive life lessons and supports that ultimately creates a path to a successful future.

The social constructivism theory shows that learning how to solve problems in social situations matters (Vygotsky, 1980) and can help build social skills through learned experiences of others. Some mentoring programs incorporate classes on learning how to be self-motivated, where students develop the capacity to engage in goal-setting, self-regulating, autonomous behavior in which they learn to understand their strengths, interests, needs, and preferences (Carter et al., 2010). These positive relationships are central to self-motivation and provide a framework for students to build and maintain positive relationships with their peers, teachers, and administrators in the school setting and are necessary to break the at-risk stigma (Maxwell, 2005). When students gain self-motivation, they receive skills that they can use throughout their entire lives to positively change the trajectory of their future (Kolovelonis et al., 2006). The at-risk student needs to understand that their career future can be a positive one if they first graduate high school career-ready.

The JAG (2019) model highlights some of the issues or barriers, as shown in Appendix B, among the at-risk population of students as a guide to successfully create a career plan for each student. When there is an increase in graduation from the at-risk population, both the quality of life for the individual can increase, and at the same time, the community and society as a whole will benefit (Wilkins & Bost, 2016). Many public education systems struggle with students who are at-risk and finding a solution to assist these students in determining their career path. Therefore, South Carolina has adopted a process where all third-year students in high school are assessed on their career readiness (WIN Learning, 2019). South Carolina’s WIN career readiness assessment determines all students' career readiness before graduation (WIN Learning, 2019). The WIN (2019) assessment assesses the student’s abilities in applied mathematics, reading for information, and locating information to measure individual student's

workplace skills and the likelihood that a student will be successful in a job setting. Students can earn a bronze to a platinum certificate depending on their levels earned in each category. Manufacturers in the southeast are now using this tool to determine whether a potential employee fits the model of worker, they are seeking to employ and helps to identify what professions that match students' personalities and skills sets (WIN Learning, 2019). This ultimately entices students to do their best in high school to gain employment in a lucrative job.

WIN's career readiness assessment and curriculum offer educators' tools to build lifelong skills and confidence needed to help students grow in their career choice (WIN Learning, 2019). The WIN curriculum and assessment helps school districts and communities to ensure all learners possess the soft skills to become successful in their career path. The program provides learners and job seekers with the "tools necessary to prepare them for the future, whether it is college, a trade school, the military, or the workplace" (WIN Learning, 2019).

The JAG National program increases graduation rates that far exceed the national average and helps students identify a lifelong career pathway (JAG, 2017). JAG (2019) asserts that after more than three decades of operation, the program has delivered consistent results by helping over one million young individuals stay in school through graduation, pursue postsecondary education and secure quality entry-level jobs. School systems that offer students mentoring programs that support students to stay in school through academic enrichment and assistance show a greater success in the at-risk students finding their ideal career pathway (Lemley et al., 2014).

Problem Statement

Preparing the at-risk student for career readiness has become a priority for high schools in South Carolina. Society has changed focus from merely graduating high school to preparing

students for the workforce (Dougherty & Lombardi, 2016). With the high prevalence of at-risk students still dropping out of high school, studies have shown that when adequate support systems are in place, at-risk students are at a greater chance of graduating with a career path (Eastman, 2016). These at-risk students have been given programs such as JAG (2019) to help them succeed in their education and career pathway. Even with the JAG program, research does not answer whether it produces career-ready students at a significantly higher rate among the at-risk population. Educators and parents fail to recognize that these students have different attitudes and needs than their peers (Simoes & Alarcao, 2013), and the research lacks information to guide these students to graduate from high school with career-ready skills (Martin, 2015). While schools offer after-school mentoring or summer programs (Forcade et al., 2019), parent nights (Nunez et al., 2014), teacher mentors, and other programs, there is a lack of data to support that they are successful in producing career-ready students. In past research, studies have shown that mentoring helps prevent at-risk students from dropping out of high school (Camp, 2017); however, it does not show whether they are graduating career-ready. The historical first warning signs of at-risk students are poor attendance, misbehavior, and class failure. These characteristics are used by educators to identify at-risk students and to provide a teacher-mentor to help motivate them to succeed with a career pathway (Staresina, 2011). Even though there are many mentoring programs, the problem of student dropout still exists (U.S. Department of Education, 2019). The mindset that the at-risk student often carries into high school will be the same that they carry into life. While studies discuss options for the at-risk student, research does not discuss this population's career readiness. There is still a gap of approximately 15% of all students dropping out of high school and are not successful in a career pathway (U.S. Department of Education, 2019). Thus, the student becomes a burden to society

through either the welfare or judicial systems (Kaufman & Bradbury, 1992). The problem is that the literature is not clear as to whether the JAG program offers a path for at-risk students to graduate career-ready compared to their at-risk peers.

Purpose Statement

The purpose of this non-experimental quantitative causal-comparative research study was to explore whether there is a difference in career readiness between at-risk students enrolled in the JAG program compared to other at-risk students who were not in the program. The independent variables were the at-risk students enrolled in the JAG program and the at-risk students without a mentoring program. The dependent variable were the WIN career-readiness assessment scores. The study selected 106 students in South Carolina who had taken the WIN assessment during their third-year in high school and determined to be at-risk for dropping out of school. JAG offers a classroom setting where at-risk students receive mentoring from a job specialist to aid students to graduate from high school and have success post-graduation (JAG National, 2019). As shown in WIN (2019), the definition of career readiness is the life-learning skills necessary to succeed in a career of choice. The WIN assessment evaluates students in three specific areas, including Applied Mathematics, Reading for Information, and Locating Information.

Significance of the Study

This study enhanced previous studies about at-risk students to show whether JAG had a higher impact on this population's career readiness. The JAG model was established in 1980 and currently supports 1250 programs, serving more than 63,000 at-risk students in 34 different states. The JAG participants' graduation rate is 96%, with 84% having positive outcomes one-year post-graduation (JAG National, 2019). A positive outcome is defined as a student who is

employed full time, in school full time, in the military or a combination of school and work. With the 2019 national graduation average of 84.6%, JAG surpasses this graduation rate (U.S. Department of Education, 2019); however, there is no conclusive research to show whether students in JAG as compared to other at-risk students are graduating career-ready (JAG National, 2019).

Even though the JAG model has delivered higher positive outcomes for at-risk students in South Carolina than the state average, not all students identified as at-risk are currently enrolled in the JAG mentoring program. As stated by Camp (2017), there were positive outcomes from teacher mentoring programs, but she did not analyze whether the students are career-ready compared to their peers. This study will expand on previous studies to compare WIN assessment scores to determine the career-readiness of students in JAG as opposed to at-risk students, not in the program.

Researchers have studied the at-risk student for decades. LaKind et al.'s (2016) study of mentoring at-risk students shows that, given a structured mentoring program, at-risk students participants' Grade Point Averages (GPAs) increased, and therefore their graduation rates increased. While Geier et al.'s (2008) study shows significance in GPAs and graduation rates, it does not offer a determination in the at-risk student's career-readiness. The WIN assessment scores will be the tool utilized to compare scores of all at-risk students and determine whether there is a significant difference between the two groups. Kosco (2016) found that while conducting a study of academically at-risk students, there is a significant increase in students passing classes when they have participated in a formal mentoring program; however, it does not mention the students' career readiness. Kosco (2016) also stated that when students did not progress with their peers or pass from one grade to the next, they were more likely to be a high

school dropout and less likely to be career-minded. While useful, this information leaves the gap of whether mentoring programs prepare at-risk students to be career-ready and thus plagues society and the school system.

The typical at-risk student has a limited future career path, which leads to strains on society through welfare programs or the judicial system. This study sought to determine whether the JAG program shows significant increases in the WIN assessment scores of the students participating in the program compared to their at-risk peers and prepares students for their future careers upon graduation from high school. Overall, the goal was to understand if the JAG structure benefitted all at-risk students by giving them the support to be ready for life after high school and to prepare students for a successful life.

Research Questions

The research questions for this study were as follows:

RQ1: Is there a difference in the *WIN assessment scores* in *Applied Mathematics* of third-year at-risk high school students between those enrolled in the JAG program and those not enrolled in the JAG program?

RQ2: Is there a difference in the *WIN assessment scores* in *Reading for Information* of third-year at-risk high school students between those enrolled in the JAG program and those not enrolled in the JAG program?

RQ3: Is there a difference in the *WIN assessment scores* in *Locating Information* of third-year at-risk high school students between those enrolled in the JAG program and those not enrolled in the JAG program?

Definitions

Terms pertinent to this quantitative study are listed below:

1. *Academically At-Risk Students* – A heterogeneous group of students who are more likely to experience lower academic achievement and potentially are school dropouts (Lacrose & Tarabulsy, 2014).
2. *Grade-Point-Average* – the averages of all final grades in each class of high school that are averaged together to determine a student's rank in their cohort. (South Carolina Department of Education, 2020).
3. *JAG* – Jobs for America's Graduates program is offered to at-risk students as a mentoring program to increase high school graduation and career readiness (JAG, 2019).
4. *Mentoring* - a relationship built between a school faculty member and an at-risk student (Simoes & Alarcao, 2014).
5. *WIN Learning*- tests are offered in South Carolina to all third-year high school students to determine their career readiness. The areas examined are Applied Mathematics, Reading for Information, and Locating Information (SCed, 2019).

CHAPTER TWO: LITERATURE REVIEW

Overview

This research study focused on career readiness and mentoring programs for at-risk students. This chapter analyzed mentoring programs for effectiveness in providing career readiness skills to at-risk students. The chapter also discussed theories that have been developed and had significant value to this research. The ways to implement support for students to be equipped for school and life was evaluated and determined if the programs had a positive effect on the student as well as society. This chapter discussed the theoretical framework through the social constructivism theory and related literature pertaining to mentoring programs, career readiness, and at-risk students' obstacles.

Theoretical Framework

At-Risk for Dropping out of High School

Since the 1980s, school improvement reform has been continually evolving because of the federal report, A Nation at Risk (National Commission on Excellence in Education, 1983) which stated that high school education in the US was behind that of the world's education market. Therefore, the education system has moved through the process to build on constructivism and collaboration of students and educators to enhance the education process and grow high schools to community problem solving and shared leadership (Sergiovanni, 2005). In Merton's (1965) *Standing* on *the shoulders of giants*, Newton states, "I have seen further, it is by standing on the shoulders of Giants." This phrase relates directly to building students' confidence as individuals to succeed in high school and gain employment after graduation. It also states through collaboration and working with others, students can achieve much more. Educators search for the precise avenue of solutions through literature to help students become successful

in school and their career pathway. Researchers build on prior knowledge to increase the information and to expand the data and thus shed light on this topic of guiding the at-risk student to be career-ready upon graduation and successful in life. God commands individuals to lead children to the right path and they will not depart from it as stated in Proverbs 22:6 (Comfort, 2011). Train students to be successful in life with a significant moral compass and they will grow to see the plans that He has for them to prosper.

Student engagement is critical to help guide students to graduation and, career readiness and the lack of this engagement in school can lead to academic failure and a possible high school dropout (Caraway et al., 2013). School-based mentoring programs and collaboration has shown unprecedented growth with students in the program and have become the most popular intervention to improve graduation rates (Campbell, 2105). Moreland (2007) discusses forming habits that will last throughout the students' life, and that will instill good character within each individual to be prepared for a career beyond high school.

With approximately 16% of the U.S. teen population in 2019 dropping out of high school, the increased awareness of a heightened reliance on public assistance was brought to light and showed that the at-risk population becoming more of a drain on society (U.S. Department of Education, 2019). The U.S. Department of Education (2019) has funded numerous mentor programs in high schools to help students stay in high school, obtain a high school diploma, and become college and career-ready. A national poll estimated that over 870,000 adults are mentoring at-risk students in schools to support them in graduating and establishing a career pathway (Karcher & Herrera, 2007). Brophy's (2010) research studied the behaviorist theories of motivation and concluded that the teacher's relationship was the key element to motivate students to achieve their highest potential. Understanding the students'

needs through mentoring and gaining knowledge on how a student performs academically, as well as their learning styles is essential to motivate each student best to reach their potential (Brophy, 2010). Some students are interested in collaboration with their peers, and some are interested in competition. The teacher's investigative skills will allow him or her to understand each student and to encourage learning with the method that best increases the student's intrinsic motivation. Often a student's mentor will uncover their individual needs and desires, which builds their self-esteem and motivates them to succeed in school and their career of choice (Eastman, 2016).

Fantuzzo (2014) discussed the different reasons students drop out of high school with the two major risk factors among at-risk students being low socioeconomic status and homelessness. Fantuzzo (2014) also shows a higher percentage of dropouts in the barriers listed above. With dropping out of high school being a high percentage within these categories, the at-risk student struggles to have a career pathway (Shaw, 2007). These students also struggle in being successful with creating a career plan and therefore turn to public assistance for support upon leaving high school (U.S. Department of Education, 2019).

Social Constructivism Theory

Vygotsky's (1980) social constructivist theory states that students learn best when they are engaged in the learning process in a social environment while working with their peers in a collaborative means. Social Constructivism is a shared experience with teachers allowing their students to gain knowledge of a subject by creating their own questions and theories and lastly by testing the validity of each one (Powell & Kalina, 2009). This theory supports the idea of collaborative learning to facilitate a student's engagement in the learning process which in turn fosters higher level thinking and excitement in the learning process (Brown, 1999). Through this

process, students are placed in groups and given situations where higher-level thinking skills are used to solve a problem or to construct a project which is the basis of Vygotsky's theory of Zone of Proximal Development (Vygotsky, 1980). Even though Piaget, the father of the Constructivism Theory, believed in individualized learning methods, Vygotsky's Social Constructivism methods evolved the theory into group motivation and growth through social interaction and by mastering higher level problems collaboratively (Vygotsky, 1978). Schunk (2016) agrees with Piaget and Vygotsky's theories by allowing individual students to solve academic problems and construct projects without constraints to enhance learning. Schunk (2016, p 338) defines this as the ability to allow individuals to "construct much of what they learn and understand". This process is called project-based-learning (PBL) in today's terms and is used in place of the traditional learning model.

Vygotsky's (1980) zone of proximal development mirrors the concept of scaffolding and through this process of chunking information and working collaboratively has evolved into PBL. Through the scaffolding process the student receives timely aide and thus supports the student to move closer to mastering the problem of learning. By placing students in the classroom together and at different learning abilities, one student teaches other students the concepts that they understand and vice versa. By giving students challenging problems and by working together all students feel they have contributed to their own learning and therefore shows excitement in the learning process (Steiner & Mahn, 1996). The student through this communication gains insight into their educational knowledge and helpful strategies to use in the future.

Through project-based-learning, the teacher disseminates the subject information to all students at one time. Learning becomes engaging and relevant to the student and supports them to be actively involved in the classroom which is the basis of Vygotsky's (1980) idea of learning

through social interactions and working with others. This process will lead students to a more in-depth level of learning and excitement, this will in turn, increase graduation rates by increasing motivation in students and encourage them to lifelong success (Cho & Brown, 2013). Educators today state that this process of learning through social constructivism has evolved the education process into one of excitement in student learning. Through PBLs education reform in teaching strategies have transformed the process into a collaboration of student and teacher success in learning (Powell & Kalina, 2009).

Socioeconomic Status

Budge and Parrett (2016) state that a student's nutrition, overall health, and transient lifestyles tremendously affect their motivation and ability to learn. Students need their hierarchy of needs met before they can learn. The needs of food, shelter, and safety are critical to any student's mental and emotional well-being and are shown in Maslow's hierarchy of needs (Herzberg, 1959). The at-risk students will typically have multiple homes, phone numbers, and their parents' change jobs often (Budge & Parrett, 2016). These students in a lower socioeconomic status react differently than their counterparts from the middle and upper class due to the lack of support they receive at home (Brophy, 2010). This lower socioeconomic class of students typically lacks emphasis and effort in their homework, classwork, and group discussions different from their peers because of their inherent lack of importance on education and academic success (Brophy, 2010). The need for reform in the education system for the lower socio-economic status is necessary and the shared experiences of these students with others can improve student involvement and thus improve student educational growth. As stated by Vygotsky and Piaget in the constructivism theory, knowledge occurs through personal and group exploration of shared experiences (Brunner, 1966).

Homelessness

The McKinney-Vento Act of 1987 discusses how it supports the homeless population in our school systems (U.S. Department of Education, 2019). While good in nature and written to help all students, this act cannot still save every student in a homeless situation because most homelessness goes unreported, as stated by the U.S. Department of Education (2019). Students who are homeless often do not want the support that this act will provide for them because they do not want the stigma that goes along with the program. Students do not want anyone to know what their living situation is and, therefore, never tell anyone that they are homeless. By the time their situation comes to light, they may have already dropped out of school to take care of their family or struggle their way through high school. Homelessness is a generational problem that can affect students' monetary outcomes in their adult lives (Ausikatis, 2014).

Hyman (2011) ran a study of 82 students to see how they dealt with homelessness and how it would affect them academically. The research used the ecological resilience prediction model to identify whether there is significant information available to predict dropouts (Hyman, 2011). Students were placed through an intensive program and then monitored throughout their time in the study, and a prediction of their future educational outcome was noted. Hyman's (2011) study shows a high significance and correlation to homeless students and their lack of motivation to learn and further their education, which leads to high school failure and lack of career focus. Barriers such as homelessness leads to less parental involvement and inclusivity of them to help with their student's educational growth. This changes the focus from educational growth to further issues with high school drop-outs and even more reform needed to combat this problem (Smith, 2011).

Related Literature

There are many ways to elevate awareness of the high school dropout situation through various research studies. The Census Bureau (2010) of the U.S. states that one in four students who start high school in the ninth grade do not graduate within the four-year guidelines. Implementing early interventions for at-risk students has become extremely important and has been known to realign the student's internal beliefs about life to one of a positive nature (Simoes, & Alarcao, 2013). Most students that fall into the at-risk category do so because of declining grades and or attendance (Balenzano et al., 2018). According to Staresina (2011), retention in elementary or middle school classes because of failing grades or low attendance increases the odds of dropping out of school by more than 50%. This staggering data shows the early intervention process with teacher mentors necessary to get students to high school graduation (Staresina, 2011).

Students who struggle characteristically have experienced deprived home lives and, in most cases, are forced to work to pay the bills (Balenzano et al., 2018). Dropouts earn less than their peers with higher education levels, yet their need for survival outweighs the benefit of education for at-risk students. Data reveals at-risk students must earn money for their families, and in most cases, they turn to illegal means and are more likely to end up in prison (Wilkins & Bost, 2016). This information also addresses the homeless situation of the at-risk student and determines whether it creates a potential dropout. Research addresses the obstacles that stand between the high school students and obtaining a diploma as well as the lack of parental support (Staresina, 2011).

Academic Interventions and School Engagement

At risk students, who dropout, typically have low performance in the academic setting and exhibit poor attendance in the classroom (Cho & Brown, 2013). With the lack of parental guidance and motivation to perform well in school, this group of students tends to fail classes putting them behind their peers and causing a domino effect of issues leading to a complete lack of desire to continue in their high school education (Wilkins & Bost, 2016). It is also noted that students being retained in classes can increase the likelihood that they will drop out of high school (Wilkins & Bost, 2016). Archambault et al. (2009) stated the importance of school engagement which would greatly benefit students that would otherwise be alienated from the school environment and be possible dropouts. The state of South Carolina requires that all students attend school until their 17th birthday, and by this point, the student could be repeating 9th grade classes for the third time. These students need academic support and enrichment to help foster success in the classroom; otherwise, they will likely be another dropout statistic (S.C. Dept. of Education, 2019).

Research shows that these academic interventions include graphic organizers, hands-on tasks, providing relevant curriculum, and individualized plans created by their team of teachers and parents to help cultivate the desire for education (Hickman & Wright, 2011). Opportunities before and after school have shown to enrich the learning experience and to support the student with a more one-on-one setting that allows them to catch up to their peers in their coursework to earn the necessary credits to graduate on time (Young et al., 2019). Online applications are another area that may help these learners. Some students prefer to work at their own pace, and schools have implemented plans to offer an online curriculum that is monitored by core

curriculum teachers for the explicit use of credit recovery in place of the traditional classroom (Wilkins & Bost, 2016).

A study in Italy shows the possibility of using academic interventions and school engagement to combat school dropouts. Italy has a 15% drop out rate and is above 11% in the European Union. Through this study of middle school students, the factors of possible school failure lie within the student and family dynamics or school-related variables such as peer relationships or low self-efficacy in the classroom setting (Balenzano et al., 2018). Researchers state that cultural and economic practices have been the main focus of problems for the at-risk student and contribute to their lack of educational motivation, but how to combat this phenomenon still exists (Young et al., 2019). Balenzano et al. (2018) created a method called Storie in Gioco project (SIG), where they studied students that were deemed at-risk to prevent early school leaving by trying to impact self-efficacy and peer relationships in these students. The study was designed to encompass 230 at-risk students to determine if two separate group activities with social workers would help to alleviate the potential to drop out of school. The first of these activities was a peer education activity where small groups of eight students watched a performance of peers that were role modeling which was designed to teach these students how to learn social cues and rules, communication and listening skills, and team-building skills. The second portion of the study had students participate in their role modeling activities. This study allowed these at-risk students to demonstrate whether the knowledge was obtained by watching the previous presentation by their peers (Balenzano et al., 2018).

The outcome of Balenzano et al. (2018), study determined that there are no significant variables that affected the participants' self-efficacy and well-being at school. The study was also analyzed by gender, age comparison, and socioeconomic class. Even though this study did not

produce a significant answer to the phenomenon, it did show changes to individual students' self-efficacy scores. Teachers and social workers agreed that there were changes in behaviors among these students and their success over the timeframe. This study did not produce the results to overcome the problem of early dropout prevention. It did state that parental involvement and further school engagement may be factors to research as they would yield different results between the groups of at-risk students (Barlenzao et al., 2018).

Project-Based Learning (PBL)

Project-based learning (PBL) is a program where educators are using strategies to increase student interests and support struggling learners to find significance in their studies (Cho & Brown, 2013). Hootstein (1996) states that there are four major conditions that help with motivation in the classroom; relevant subject matter; presentation of interesting instruction; students' sense satisfaction; expectation of success. Through PBL's the student will have these four conditions met. Cho and Brown's (2013) research shows positive outcomes on curriculum knowledge, student motivation, problem-solving skills, collaboration, and communication skills when the student uses PBLs. The links between real-world projects and content help struggling students increase their probability of gaining a high school diploma, as stated by Geier et al. (2008). The 21st-century student's engagement in the curriculum is linked to the technology utilized in the classroom (Lemley et al., 2014). Educational leaders invest in one-to-one technology for each student to access their device to enhance the educational experience and improve academic achievement. Student engagement and motivation increase when the project is personally relevant to their life, and they find a deeper meaning to the content (Cho & Brown, 2013). Cho and Brown (2013) found that the main objectives of their research were:

1) The projects allow students to investigate the problems.

2) The projects involve collaboration with students, peers, and teachers.

3) The projects promote the use of technology and other cognitive tools.

The ultimate findings from this research show significance in implementing PBLs as long as there were positive student-teacher relationships (Cho & Brown, 2013). The PBL alone without the student-teacher relationship did not produce the positive outcomes that were shown otherwise. PBL theory is valid when there is a positive relationship between a student and teacher in a classroom setting because the student needs to satisfy the teacher with their work. Herzberg (1959) also stated that work could foster satisfaction in a student's well-being by improving their health and making them more successful.

Grade Retention

A long-standing approach to an at-risk student's growth is retention. Even though research shows that retention is not always a positive experience, educators continue to utilize this approach (Young et al., 2019). Some states such as Michigan believe retention is the best practice for students who fall behind in core classes giving them time to fill in the academic gaps before taking a high stakes assessment (Jacob, 2016). Research shows that students exhibit gains in school engagement and social acceptance with peers after being retained in school (Bonvin et al., 2008). Further discussion of the retention possibility yields even other opinions that the outcomes are not as positive over time (Klapproth et al., 2016). Even with conflicting reviews by researchers, the practice of retaining students continues.

Young et al. (2019) studied the predictors of retention, reasons to retain students, and the long term effects of retaining the at-risk student. Three predictors were determined through this study for retention, which includes the maturity level of the student, students who struggled in math classes, with an emphasis on the lack of parental support at home (Young et al., 2019). The

student's maturity level tends to be significant among multiple studies, and researchers agree that it contributes to the at-risk student's self-efficacy (Ausikaitis, 2014). Young et al. (2019) stated that teachers believe that students should never be retained because of their maturity level, but it is necessary in some cases.

Even though retention does not always seem the best avenue to support the struggling student, Young et al. (2019) stated that student retention, if necessary, must be done in the early school years such as kindergarten and at the elementary level. Moreover, the potential gains in retention, such as a deeper understanding of the curriculum and growth in maturity levels, are short-lived and have fewer benefits than first believed (Young et al., 2019).

Parental Involvement

According to Suttie (2016), parents must be involved in their child's education to be academically successful. The lack of parental involvement in the classroom is noticeable in the homes of those that come from low socioeconomic status. Students suffer the greatest when their parents are not involved in their day-to-day activities. With more than 50% of students living in poverty today, teachers and school systems must intervene (Suttie, 2016). Students considered to be at-risk of academic failure are often those with family circumstances that require health and social services such as homelessness, as stated by Wells (2013). Wells (2013) reveals that when a student's food, shelter, and safety needs are met, parental involvement increases along with these students' academic success.

Gonzalez and Jackson (2012) studied a group of kindergarten students and found that socioeconomic status influences students' parental involvement and motivation because of the one-parent home situation or the possibility of two incomes supporting the household. The academic growth of the at-risk students in poverty along with the lack of parental involvement,

was more likely to be lower than their classmates. Suttie (2016) states that schools work to involve parents and when involved, the students' motivation grew drastically despite their socioeconomic status. This study states that the students' home environment can influence their academic success (Afia et al., 2019; Jackson, 2012).

While Wilkins and Bost (2016) state that family engagement is essential and necessary for their children's success in education, parents may not be equipped with the prior knowledge of the curriculum being implemented. Research has found that parent educational involvement has been positively linked to students' academic success, including a higher grade point average (GPA) in school, high-level scores on achievement assessments, and school engagement (Benner, 2016). Wilkins and Bost (2016) researched a parent-mentor partnership program. This program offered employment to parents to become a parent liaison to support other parents and provide resources needed to increase student success. This process allowed parents' engagement with the curriculum being implemented in the school system and opens an opportunity for further involvement by both the parent and the student (Wilkins & Bost, 2016).

Schools that offered workshops and training sessions to show parents where to find the necessary tools to aid their learning showed greater parent involvement (Wilkins & Bost, 2016). Benner (2016) shows significant evidence that parental involvement and socioeconomic status significantly impacts student achievement and GPA in these students. Parental involvement drastically changes by the time the students are in 12th grade, yet there were no significant effects on the student's GPA, achievement assessments, and school engagement (Benner, 2016). It is also imperative for teachers and schools to have continuous communication with parents to increase all students' learning process by gaining support from the family unit. An open line of communication through email, phone calls, or in-person needs to be administered on a regular

basis in order to foster a relationship between parents and teachers that will be a large part of the student's support system (Suttie, 2016).

Mentoring Programs

Simoes and Alarcao (2014) describe mentoring programs as purposeful interaction with students, and through this interaction comes trust and openness. These students need to know they have an advocate that they can rely on within the school setting. The current mentor structure at schools does not explore the students' lives and, therefore, never wholly determines the root cause of students dropping out. When students misbehave in class, they need attention, and administrators seek to find time to properly understand these students to move them toward success (Simoes & Alarcao, 2014).

Cooper (2014) studied students that did not grasp the relevance to school until their local community of educators started a free after school program for tutoring, counseling, and encouragement. These programs began in the community and in their neighborhoods to help students feel comfortable about their surroundings. Educators ran programs and invited students to meet with them for one-on-one support and encouragement. This program showed that when mentoring programs are implemented, students in these neighborhoods became more engaged and successful in their schoolwork (Cooper, 2014).

Ma (2009) states that socioeconomic status plays an essential role in what choices students make about their education programs, including courses of study in high school and if they plan to continue their education beyond high school. This study looked deeply into the effect that socioeconomic status and parental involvement drive specific outcomes in their student's education or lack of education. Ma (2009) also looked at the differences of mentoring programs to determine if there are patterns in the different groups that can be narrowed down to

eliminate the barriers these at-risk students face such as the barrier of lack of support from the family with the student's education (Ma, 2009).

Jobs for Americas Graduates Program (JAG)

JAG is a program offered by the Department of Employment and Workforce commission, which guides and supports the at-risk student throughout high school to graduate and be career-ready (JAG National, 2019). This program provides a teacher called a Job Specialist to mentor this population of students to be prosperous for the four years that they are in high school and to provide support for one-year post-graduation. This elective class is offered each year and provides academic support for all classes that JAG students are enrolled in while in high school. The Job Specialist is the liaison between the student, other teachers, school administration, and the community to help students overcome barriers that hinder their success (JAG National, 2019). Herzberg (1959) states that factors that bring about satisfaction to students and workers are the intrinsic motivators of challenging and exciting work, recognition in a job well done, and the external motivation of a mentor. Wells (2013) states the importance of the at-risk student being assigned a mentor to address the dropout prevention problem plaguing our nation's young people. Building and sustaining the connections between the Job Specialist and the student is key to the program's success because of the nature of barriers that this population of students brings with them. JAG identifies the top 16 barriers to success to address the hindrances that at-risk student faces daily. Among these barriers is homelessness, living with one parent or no parents, low academic performance, excessive absences, excessive discipline issues, health issues, and others listed in Appendix B (JAG National, 2019).

The main barrier preventing a student's success is poverty, which JAG defines as homelessness or living with one parent or another relative. Mentoring these students to find a

career path can increase their desire and motivation for success. This can improve the life of the at-risk student in poverty. Students in the JAG program learn to utilize their career skills to ensure continued success upon graduation from high school (Koeninger, 2015). This mentoring program allows students to work with a Job Specialist to identify their career interests and ultimate career path. Through this, they can see their future life potential, which can lead to living in a higher socioeconomic status (Caraway et al., 2011). A Job Specialist works closely with the at-risk student to find a job of their interest while still enrolled in high school. Local companies meet with JAG students, encourage them to work for their establishment, and offer incentives to begin work before high school graduation (JAG National, 2019). These incentives can be the promise of promotions or financial aid with tuition for further certifications or degrees upon graduation from high school. The relationship created from the business community with the JAG students are lasting and provides a network of opportunities throughout the student's lifetime (JAG National, 2019). As discussed by Wells (2013), social networks secure partnerships through employment agencies, post-secondary institutions, and local businesses to explicitly discuss how the network combats the dropout problem in the community. Through this inter-organizational cooperation, the Job Specialist provides the insight to support students with their academic success, opening the student's realm of sight to opportunities that might otherwise be overlooked. Students also can work with employers through volunteering and community service opportunities while opening doors for future employment upon graduation from high school. Employers seek employees with soft skills training and not necessarily those who have certifications (S.C. DEW, 2020). The workforce employment security commission (2019) states that the most significant factor that employers seek is soft skills training. JAG offers this training for all four years of their high school career, giving each student the skills that most students do

not possess upon graduation (JAG National, 2019). The JAG program mentors' students through the classroom setting and provide opportunities for the at-risk student to be successful beyond high school.

Glasgow (2009) shows the importance of a program such as JAG. He studied 53 at-risk students, where 22% of the 53 wanted to go to college at the beginning of the mentoring program. After this mentoring program, 83% wanted to pursue further education or certifications. Glasgow (2009) found that when students are given an open forum to learn, and the task becomes their ideas, they have more fulfillment in their work. Therefore, these students are more prosperous than their counterparts who do not have a mentor. The JAG program aids in student intervention to raise graduation rates and creates growth in student success through high school and one-year post-graduation into the student's career path (Koeninger, 2015).

Ultimately supporting this group of at-risk students takes more than a Job Specialist or school system; it takes an organization of networking opportunities (Wells, 2013). Wells (2013) states, the needs of this population of students is extensive and requires many resources to support the at-risk student completely and to offer opportunities needed to motivate and to realize that they can have a bright future. The JAG program offers a wide variety of connectedness to the community and the workforce therein to offer this group of students' options in their career paths during and after high school (JAG National, 2019). From funding to business partnerships and community service projects, this mentoring program opens the doors of opportunity for each student to explore the jobs available in their own community and to be able to understand what skills are needed to have a positive work experience (Wells, 2013). Students can give back to the community that is supporting them through partnerships that provide financial backing into these underprivileged areas inside the school setting which in turn

allows each student to have the chance to visualize their future and possibly change the trajectory of their career pathway (JAG National, 2019).

Teacher Mentoring Program

McClain (2015) discusses five ways to assist students that have lived in poverty for generations and are at-risk through a teacher-mentoring program. Teachers can identify these students in their classrooms and support them by showing kindness, exposing them to experiences, giving plenty of praise, refraining from asking for money, and keeping expectations high. Teachers working in areas with high poverty levels will experience students who need their support daily. Teachers, as mentors, can identify at-risk students and aid in the implementation of strategies to motivate students to reach their full potential (McClain, 2015). Suttie (2016) states that the environment or culture in the classroom can significantly impact a student's education and motivation to learn. The school system must recognize that their tactics and effort put into the motivation of students lies directly with the teacher and their classroom environment. Therefore, all teachers must be trained to recognize this need early in elementary school so that the at-risk students do not fall behind in their education. This research reaffirms the notion that the teacher and or school system can directly influence at-risk students and their academic success (Suttie, 2016). The teacher as mentors understands and helps the student that struggles in a certain subject as the student will show signs of lashing out or lack of interest towards learning and may not ever vocalize their fear as stated by Olson (2008).

Tschannen et al. (2013) shows that optimism grows within the at-risk student and student self-efficacy when the student trusts their teachers and administration and feels a sense of belonging. Everyone wants to feel a sense of belonging, and Tschannen et al.’s (2013) study shows the significance of being a part of something bigger than the students and the correlation

to optimism. A sense of belonging is significant for students to succeed both academically and in adult life (Tschannen et al., 2013).

Cooper (2014) studied students that did not comprehend the relevance to school until their local community of educators started a free after school program for tutoring, counseling, and encouragement. These programs began in their community and neighborhoods to help students feel more comfortable about their surroundings. Students met with educators in a one-on-one setting to allow educators to understand their needs and make a plan for support. This program when completed showed with a mentoring program available that the students in these neighborhoods became more engaged and successful in their schoolwork (Cooper, 2014).

Cummings (2012) studied students in a local urban high school where the poverty-ridden neighborhoods were prevalent. The poverty level of these students contributed to poor school attendance. The research shows how two teachers studied their students to understand why they were so disconnected from the school and their education (Cummings, 2012). The teachers talked with each student to understand what they were most interested in and began to change how they taught to make their lessons relevant to something that interested their students. The teachers found that over a two-year time frame, the students became more engaged and wanted to improve their grades by regularly attending school and by showing interest in the material being taught to them (Cummings, 2012). Cummings (2012) states that the classroom teacher is the key to motivating students to overcome their circumstances, and he proved through research the key to motivating students that live in poverty is to make learning relevant and relate their work to student interest. Cho and Brown (2013) also found in their study of project-based learning that the ultimate factor was the teacher's relationship. The teacher’s positive connection made the difference with the at-risk student by pursuing the student’s intrinsic motivation (Cho

& Brown, 2013). Eastman (2016) states that a mentor is an invaluable person in an at-risk student's life as they increase motivation and build self-efficacy, especially in those who live with a single parent. Research shows that teachers have a significant influence on their students; therefore, they have a overwhelming responsibility to lead them to learn what their purpose and meaning are in life (Sire, 2009).

Socio-Economic Barriers

Olson (2008) discusses the many avenues of an at-risk student and the many ways a student's problems create their lack of receptiveness to learning. This shows not only through socioeconomic status but also through cognitive abilities in each subject. Kosco and Destin (2016) believe that there are disconnects between students and their friends with differing socioeconomic status. Students who live in wealthier environments typically interact with more adults that have gone to college and view education as a means to their goals of having a prosperous life. Even though students may live in a home for many years, they may not have a parent to support them academically with their education or even be present when they arrive home from school (Hyman, 2010). Students from lower socioeconomic status are not as likely to interact with college graduates, and in many cases, they interact with people who have not even graduated from high school, including their family members. These students often grow up in poverty-stricken neighborhoods where crime is very prevalent. The student's living situation becomes a non-healthy one and can hinder future success in education (Nunez et al., 2015). It becomes the education system's mission to assist these students in understanding the advantages of education in high school and secondary education to overcome the situations they are accustomed to (Kosco & Destin, 2016).

Within the parameters of socioeconomic status and homelessness includes: living in homes with other family members or friends, living in poverty in their childhood home, or they may be transient (Hyman, 2010). While all three of these situations display the family unit's socioeconomic status, they all have different problems associated with them. The inconsistencies in these problems devastate the most vulnerable students and cause the dropout rate of this population to increase (Hyman, 2010). Problems that plague the at-risk students such as socio-economic status have made the dropout situation worse by not meeting the physical needs of the students. Many studies have shown that the physical needs of the student must be met first in order for the student to be receptive to learning (Hernaes et al., 2017).

The at-risk student may also be one that lives in the homeless population or moves during their school-aged years (Hyman, 2010). The movement of this population of students creates a situation in which they are changing schools and leaving gaps in their academic skills. The students are held back from grade to grade, and even worse, they do not understand the curriculum to be successful in future classes (Nunez et al., 2015). The McKinney-Vento Act of 1987 safeguards these students in the homeless population to be supported by the school system for items such as housing placement, food, clothes, school supplies, transportation, and health care needs (U.S. Department of Education, 2019). As stated by the U.S. Department of Education (2019), each state must ensure that every student in a vagrant status has equal access to the free, appropriate public education that their peers are provided. When this program is administered correctly, it can help families relocate, find a job for support, or aid them in making it through a tough situation. While well in nature and written to help all students with the homeless status, this act cannot still save everyone in this population of students from dropping out of school (Ma, 2009).

For the situation to be corrected, the homeless student must tell someone at the school level and this rarely happens. By the time their homelessness is known, they may have dropped out of school to obtain employment to support their family income (Ausikaitis, 2014). By not graduating high school, the student severely affects their means to a higher monetary household and repeats homelessness in their adult lives. Earlier detection of the homeless students' situation may help the student graduate on time by improving the situation to a more stable one (Ausikaitis, 2014). Weisman (2012) discusses keeping students who are homeless in their beginning schools with their original friends and familiarities. Weisman (2012) also discusses the prospect of allowing students that are transient to receive partial or full credit for courses awarded by their home schools even when they have completed their coursework elsewhere. Leaving students in their original schools gives the student the flexibility to live in foster care and maintain their status at their home schools. Foster care and homelessness may only last a month or two or may continue throughout their childhood, and students suffer from the instability of their home life (Weisman, 2012). This research determines the importance of a student’s home school culture versus that of the school system they move into because of their homeless status. A homeless student is 87% more likely to drop out of school (U.S. Department of Education, 2019). There are approximately 1.7 million teens that experience homelessness in a given year in the U.S., and with these statistics, the education industry must help find a solution to this growing problem (S.C. Department of Justice, 2020).

Through Hyman's (2014) research, there was a high significance of homeless students and their lack of motivation to learn and further their education by leading to an increase in the dropout rate. While helpful in proving the high importance of stability among school-aged students and their families, this information does not directly relate the homeless population to

dropout rates. Hyman's (2014) study does state that a student does not have a way to overcome their homeless situation but can overcome their attitude towards the situation by completing their high school education and graduating on time. Students can break the norm that is evident in their young lives by seeing their worth to become successful and not allow their current situation to define their future.

Studies show signs of neglect, poverty, and possibly experienced some crisis have caused some students to drop out of high school. Chmelynski (2006) research shows that when given crisis intervention or intensive psychological support upon starting high school that the student was more likely to understand the importance of obtaining a high school diploma. There are numerous solutions based on Chmelynski's (2006) study, including different paths to graduation, such as virtual school or flexible schedules to allow for employment opportunities. The school systems are leaning toward an individualized learning plan, therefore following this method in assisting students with completing high school and gaining their diploma (Ma, 2009).

Substance abuse among this population is higher and can lead to a higher dropout rate (Xie, 2012). It is shown that homeless students have a lack of adult support and turn to an abuse of drugs to deal with their pain (Ma, 2009; Xie, 2012). This problem leads to a downward spiraling effect and manifests in school dropout and the inability to obtain full-time employment. Xie's (2012) research offers a different point of view to answering the at-risk student's developing problems stating that all students have barriers to their success, but students who turn to drugs and alcohol often create more problems, making it harder to overcome.

Wells (2013) finds high significance in dropouts among certain groups, including those that are homeless or living with adults other than their biological parents. These students show significant improvement when given a group of mentors to track their progress. Specifically,

school systems that offer a range of options for after-school programs for these students grew in their knowledge of the curriculum and motivation, which improved graduation rates. Wells (2013) states that supporting these students is an essential key to changing the attitude about academic success, therefore supporting each student to be successful after graduation. Students often create lasting relationships with their adult mentors that extend into their adult life, which help them to continue to be successful (LaKind et al., 2016). This connection with their mentor is a substantial factor in the student's overall success in life outside of high school (LaKind et al.; Wells 2013).

Career Readiness

Hirschi (2011) defines career readiness as the ability of a person to reach a well-founded career decision, and to do this creates positive psychological thoughts among young people. As students have indicated in previous studies, the need for career readiness is growing in all high school students in the U.S. (Yavuz et al, 2019). The need to understand how a student will become financially stable and support their families is one that affects some students because of the lack of positive role models in the home setting (Herrera et al., 2013). To combat this and understanding that the public school system must take a leading role in career readiness, public school administration and faculty are designing programs to assist students to find their career interest and develop plans to achieve their goals through counseling strategies used to transition students through high school and into a job post-graduation (Young et al., 2011). States are adopting college and career readiness standards and implementing standards-based on specific career clusters to engage the at-risk student to find their path for success (Pak & Desimone, 2019). Pham and Murray (2019) work with at-risk students who display academic failure and find that determining a career path increases the school bond, engagement, and career self-

efficacy. Students in this category have a high probability of experiencing a lack of success while in school and their careers. A career path must be determined to improve students' self-worth and success rate in their career choice (Pham & Murray, 2019).

The students in this program enjoyed learning skills, encourage students to find enjoyment in their work, and create a need for success (Pak & Desimone, 2019). Six states that implemented the College and Career Readiness (CCR) standards found that there were different focus points in the curriculum determined by the local job force and created specified instructional standards based on the geographical location (Pak & Desimone, 2019). The state of South Carolina offers 16 different career clusters for students to choose to pursue. Career clusters are based on the need for employment in the state by industries such as advanced manufacturing to agriculture. Within these parameters, the state created the profile for the S.C. graduate (Petcu et al., 2016). The drive for this new program is based on researchers finding that without proper programs for students to discover their career path can alter whether they obtain their goals for success (McCarron & Inkelas, 2006) Setting attainable goals and making plans to achieve these goals is the key to success to a career-ready graduate (National High School Center, 2013). South Carolina's profile for the S.C. graduate measures a high school student's career readiness upon graduation (S.C. Dept. of Education, 2019). This profile is a measure of how well a student performs on the WIN Career Readiness assessment and determines whether a student possesses the skills required to have a job in the workforce in the state (Petcu et al., 2016). Once challenged in the workforce, the student will find fulfillment in the career choice and ultimately become healthier and foster their intrinsic motivation to continue to be successful (McClarity et al., 2017). There are four Ready to Work skill levels that the WIN career readiness scores measure which range from Level 6 = Platinum, Level 5 = Gold, Level 4 = Silver, and Level 3 =

Bronze. Scores range from a possible 217 for a level 3, Bronze, to a possible 270 for a level 7, Platinum. Platinum level states that the tester would be ready for 99% of all jobs in the workforce, Gold is ready for 90% of jobs, Silver is ready for 65% of jobs, and Bronze is career-ready for 35% of jobs in the workforce (WIN learning, 2019).

Zhou and Kim (2015) defines success in a career setting as one that follows ethnic norms and creates a path for a person to flourish in their field and provides financially for their families. The at-risk student is not necessarily defined by GPA, test scores, individual grades in class, and graduation from high school for success, but instead, they view it as monetary and the ability to have large possessions (Zhou & Kim, 2015). Therefore, job shadowing, mentoring, and internships can yield a much higher impact into the vast wealth of knowledge that an on the job training session can do for the at-risk population to understand how the employee managed to become successful in the career that they have chosen (Yavuz et al., 2017). The term success has several different meanings to every individual, and yet the at-risk student looks to society to deem what is successful and what is not, which may be a positive approach or possibly one that can have an adverse effect (Zhou & Kim, 2015).

Some states have adopted testing strategies to determine career readiness, such as the ASCA curriculum and testing (ASCA, 2012). Students were found to be more prepared and ready for post-secondary education or job-related fields upon completing these standards (Yavuz et al., 2019). These programs have been determined to offer students a broader look into their possible careers by offering support in career exploration, financial aid resources, and career counseling through job shadowing and mentoring services during their high school years (Yavuz et al., 2019). Through the awareness of a career possibility, the student determines whether they will see great success by looking at how society interprets the career and its success rate (Zhou &

Kim, 2015). The broader look at the career possibilities creates a path for students to dream and carry out their academic achievements because the more a student enjoys the career, the more determined they become to be successful in a career path (Zhou & Kim, 2015).

Biblical Worldview

God intends for the world to see Him through his followers and as stated by Sire (2009) we must treat others with respect and accept diversity among each other so that children will receive the truth of the loving God that created this universe. Kardamis (2017) writes how the biblical worldview of teaching is to motivate students from the heart. Kardamis (2017) also states that teaching the whole child is the best method and will yield the best results through enthusiasm and real-life applications. Kardamis (2017) believes that teaching is a calling, and therefore, educators must listen to the teachings of Jesus to better understand every student and to guide them to find their true calling. Educators must learn to meet students' physical and social needs first to be able to help them understand and become successful in their place in society (Zhou & Kim, 2015). Vygotsky (1980) stressed the role that social interaction played on the development of students through the social constructivism theory and he teaches that working together as a community helps all students to learn deeper matters. God states that He can use all things for His good as stated in Romans 8:28 (Comfort, 2011) and even though Vygotsky was not a Christian, his work can help called educators to reach the struggling student. Without social development and guidance or encouragement, the student may not broaden their intellect and miss learning through their shared experiences as Vygotsky (1980) states is important. (Vygotsky, 1980). In Proverbs 13:20, David speaks of walking with the wise to become wise (Comfort, 2011). Teachers are trainers and therefore must train students to become knowledgeable like the teacher as stated in Luke 6:40 (Comfort, 2011) Education may or may

not begin in the home, but it is also the community's responsibility, by bearing each one's needs (Colossians 3:13), and the education system to help aid in this endeavor for society to prosper (Hernaes et al., 2017). As Jesus was known to be a constructivist by His teachings in Matthew, He clearly taught through parables and life experiences to relate His points to the learners (Robertson, 2008). "Let your light so shine before men that they see your good works and glorify your Father in heaven" (Matthew 5:21-22).

Brummlen (2009) states that the insight into how Christ views each student in the classroom lends a new perspective. The programs mentioned in this study are changing lives every day by changing the worldview in every student. As Brummelen (2009) states, teaching is not one of domination but of servanthood to each student. Students can see Jesus in every teacher's caring attitude daily and understand what the pure love of the Lord means (Van Brummelen, 2009). The worldview changes to one of a personal God that is like each student, and the students can learn to trust and allow Jesus to change their perspectives (Sire, 2009). As stated in the 23rd Psalms, we are not to fear but know that God is with us and protecting us to fulfill a purpose (Comfort, 2011). God is omniscient and working through each educator to guide the minds of the young to change the worldview of their students to one of hope and prosperity (Brummelen, 2009).

Each student has a choice to make the right decisions, and as a biblical principle, "Choice is an inborn motivation" (#42). Based on the interpretations of the law through Moses in Deuteronomy 30:19, "I call heaven and earth as witnesses today against you, which I have set before your life and death, blessing and cursing; therefore, choose the life you and your descendants may live." Educators must be deep-rooted in the remembrance of the work and purpose that God performs in and through them every day. God's calling is a promise, and with

this promise comes the responsibility to wear the armor and disciple to all so that the recovery of knowledge may be true and holy until the end of the earth (Moreland, 2007).

Summary

This research provided evidence of the teacher-student relationship as being the critical component of student success and through social constructivism the whole child can prosper. Brophy (2010) stated that knowing the students in the classroom and their personalities is part of determining how best to motivate students to learn. Brophy (2010) also stated that good mentors can build a foundation in each student and lead them to their highest potential by moving the student out of their comfort zone. Brophy's (2010) behaviorist theories were studies that concluded that the relationship with the teacher was a significant component of motivation. Some students are interested in group work, and some are interested in competition, it is the teacher's investigative skills that will allow him/her to understand each student best and encourage them to follow the path that is best for their intrinsic motivation (Eastman, 2016).

Likewise, students with lower socioeconomic status or in a homeless situation reacted differently to their counterparts from the middle and upper classes (Budge, 2016). They typically handled their homework, classwork, and group discussions differently than their classmates by only turning in partial to no work because of their inherent lack of emphasis on their education (Campbell, 2015). This created situations where the student failed classes or did not thoroughly understand the curriculum. Through this confusion and lack of effort, the student would become at-risk of possibly dropping out of high school. Therefore, every student must learn that interaction with others can be important in their education. As Vygotsky (1980) stated that learning occurs through interaction with other people as well as with themselves and it connects to prior learning which offers deeper meanings to knowledge. Students need a support system

that aides them to see past their situation and their future endeavors which sometimes is not offered to the at-risk student from their parents (Jackson, 2012). The following questions need to be answered by the student to increase their self-determination. What does each student see themselves doing in ten years? How do they plan to make a living and provide for a family? How can they get out of their current situations and move past how they have been raised? Each student must see that their future is not defined by their past but is determined by how much individual determination that they possess to overcome the odds and overcome their current situations not to be a part of the next dropout statistic.

The literature showed the theoretical framework of the social constructivism programs discussed and the underlying components of family, community, and teacher assistance to encourage each student's success. God intends for all students to be taught truth and knowledge throughout their growing lives as stated in 2 Timothy 2:2 (Comfort, 2011). Moreland (2007) wrote about the patience that everyone must have with each other as everyone is learning more about faith and God’s plan. Educators need to be patient with students as they learn this plan daily and offer moral and physical support to help each student succeed. Moreland (2007) also spoke of the family's authority, and the biggest failure in society is the deteriorating family home structure. This leaves all students at risk for dropping out of high school and creating an issue that all researchers must address. How do we save the at-risk student? Mentors, teachers, parents, and students must all work together to overcome the barriers to a student's success.

The long term effects of a student dropping out of school may last throughout generations, and they have most likely been the product of parents that did not complete high school as well (Budge, 2016). Whether students should be retained to learn the curriculum or whether they need a mentor is complex and requires a team of concerned people to intervene on

each of these students. The gaps that exist in the research are ones that help to answer how to protect more students from dropping out of school. Through this study, it will be addressed as to whether a mentoring program truly works to help at-risk students to graduate and be successful in a career post-graduation. Through the WIN assessment as the instrument, the career readiness of a group of at-risk students will be measured with validity and confidence.

Addressed in this literature were many explanations of why students are labeled at-risk, yet a proven plan of action that works for all students had not been formulated to help with the overarching problem of high school dropouts and lack of career readiness. As stated by Cho and Brown (2013), the proven strategies to assist the at-risk student are immersed in the student understanding of the relevance their academic success has on their future. There must be a connection to their passions, dreams, and desire to want a different or better life than some of them to face daily, and the student will not find the intrinsic motivation to change their life's path (Vygotsky, 1980). Students need to make and obtain goals to help them move up in socioeconomic status and not repeat the struggles that their parents have faced (Ma, 2009). While this literature addresses many of the at-risk student questions, 15% of the student population still drops out of school in our country every year (U.S. Department of Education, 2019). Educators need to take a look at this growing problem and cultivate a plan that can be replicated to help prevent the at-risk student from becoming a high school dropout.

The literature did not address whether the student was career-ready past graduation, even though many states have adopted standards to address it. While having many options, the literature did not offer a clear pathway to help the at-risk student see the relevance in their studies to stay in high school and graduate. This study explored the information that has previously been collected by Yavuz et al. (2019) to determine whether their approach to

understanding career readiness can predict a student's readiness along with the SC WIN Learning (2019) state assessment scores. These assessments determined if an at-risk student graduates through the JAG program more equipped and career-ready than their peers who have not been a part of this program. Career readiness was examined to understand if the student assessment results reveal that they are career-ready in Applied Mathematics, Locating Information, and Reading for Information and whether they differ from their peers.

Lemley et al. (2014) state that the 21st-century student must have a positive student-teacher relationship, there also must be the ability to see the relevance to their lives outside of the education field their career choice. Students must have a career path in mind and see that their lives can be positively affected by the pursuit of this path, regardless of their background and past academic performance. This study looked at the information of the student-teacher relationship through the JAG program and how it relates to career readiness upon graduation and whether the WIN assessment reveals that this group of at-risk students graduate ready to embark into their career choice. The WIN assessment assesses an individual’s skills in questions about applied mathematics, locating information, and reading for information. It also determined whether the JAG mentoring program made a difference for the at-risk student to succeed through high school and post-graduation. Through this study, the expectation was to better comprehend the differences between at-risk students and whether school districts implemented the JAG program as a cost-effective way to graduate more students' college and career-ready. Psalm 37:4-5 states we are to trust in the Lord and do good so that we may obtain the desires of our heart (Comfort, 2011).

CHAPTER THREE: METHODS

Overview

The purpose of this study was to investigate if the JAG mentor program had an effect on at-risk students when comparing WIN career-ready assessment scores of their peers. Chapter Three introduced a discussion of the following sections: study design, research questions, hypothesis, participants and setting. This study will also highlight the study's instrumentation, procedures, and data analysis.

Design

A quantitative, causal-comparative design was used to determine if there was a difference in the WIN scores among third year at-risk students within the JAG program as compared to their third year at-risk peers not enrolled in the JAG program. The at-risk student status was determined by poverty level, academic failure, or a student that lives with only one or no parents. This design was chosen to investigate if the JAG program makes a difference in WIN career readiness scores with the at-risk population. Gall et al. (2007) stated that the causal-comparative study explains a specific phenomenon through the study of cause and effect and compares groups of participants to determine the significance of the program being studied. This casual-comparative study was used to make inferences on a larger population based on the data gathered and determined whether the groups differ on the dependent variable (Gall et al., 2007). The design was chosen because it allows for the exploration of the possible cause of mean scores of the independent variable onto the presumed effect of the dependent variable and also allows for a minimum power of 80% to reject the null (Warner, 2013). The independent variables were manipulated before the study and occur naturally in turn exhibiting that participants were not randomly assigned but rather there were two groups (Rovai, 2013). In a causal-comparative

study, comparison of scores on outcome variables for statistical analysis is used to analyze mean scores and assess how strongly related these scores are (Warner, 2013) and through this study, WIN scores were evaluated. Warner's (2013) decision tree states that the independent *t* test is the correct testing between two groups to produce significant outcomes to reject the null hypothesis should the null be false. Through this study the determination was made if these students are positively impacted from the JAG mentor program and determine if this sample received higher scores on their WIN career readiness assessment as compared to their peers by comparing mean scores of the two groups.

The independent variables identified for this study were third-year at-risk high school students enrolled in the JAG program and third-year at-risk high school students who were not enrolled in the program. The dependent variable was the WIN career readiness assessment scores in *Applied Mathematics, Reading for Information* and *Locating Information*. Data from third-year high school students WIN career readiness scores were collected and analyzed. The study also determined whether there was significant differences in the academic performance on the WIN career readiness assessment between the two groups of participants.

Research Question

The research questions for this study were as follows:

RQ1: Is there a difference in the *WIN assessment scores* in *Applied Mathematics* of third-year at-risk high school students between those enrolled in the JAG program and those not enrolled in the JAG program?

RQ2: Is there a difference in the *WIN assessment scores* in *Reading for Information* of third-year at-risk high school students between those enrolled in the JAG program and those not enrolled in the JAG program?

RQ3: Is there a difference in the *WIN assessment scores* in *Locating Information* of third-year at-risk high school students between those enrolled in the JAG program and those not enrolled in the JAG program?

Hypotheses

The null hypotheses for this study were:

Ho1: There is no statistically significant difference in the *WIN assessment scores* in *Applied Mathematics* for third-year at-risk high school students between those enrolled in the JAG program and those not enrolled in the JAG program.

Ho2: There is no statistically significant difference in the *WIN assessment scores* in *Reading for Information* for third-year at-risk high school students between those enrolled in the JAG program and those not enrolled in the JAG program.

Ho3: There is no statistically significant difference in the *WIN assessment scores* in *Locating Information* for third-year at-risk high school students between those enrolled in the JAG program and those not enrolled in the JAG program.

Participants and Setting

Population

The population of third-year high school students used in this study were from one rural high school in upstate South Carolina. This study consisted of a convenience sampling of 106 third-year high school students at-risk for becoming a dropout. 53 of these students were among the third-year at-risk students enrolled in the JAG program and the remaining 53 students were third-year at-risk students not enrolled in the JAG program. This population took the *WIN career readiness assessment* during the spring of 2018-2019 of their third-year of high school. Gall et al. (2007) states a sample size of 50 participants per group meets the required minimum for a

large effect size with the statistical power of 0.7 at the 0.05 alpha levels. These two groups were from one rural high school within a small school district in upstate South Carolina. Each participant in this study receives free or reduced breakfast/lunch was identified as at-risk. This high school was located in a less affluent part of the upstate where the city has seen loss of jobs and loss of population. This school was within the city limits and represents middle and lower socio-economic backgrounds. This school system with approximately 675 students has a dropout average rate of 18.13% over the last four years. Students chosen for this study range in age from 16 to 18 years old. The enrollment breakdown for the school is approximately 22% white, 76% African American, 1% Asian and 1% Two or more races. The school in which these classrooms were selected receive Title 1 funding with 100% of their student population receiving free or reduced breakfast and lunch with 84.2% identifying as living in poverty. The school system offers paths for college or careers with an off-campus career center where students may learn a trade while attending high school. The school also offers work counseling to aid students in obtaining and maintaining employment while in high school along with job shadowing for future employment opportunities.

Sample

A convenience sampling method was used to select 106 third-year at-risk high school students from two groups. These groups represent a target population of third-year at-risk students from one high school. One group of students was enrolled in the JAG program and the other at-risk students were in the main-stream student population. The students were randomly selected to represent the diversity in geographic and socioeconomic levels of the high school system from a group of at risk students with barriers to success. These barriers to success included failing a grade in a core subject area, missing more than 10 days of school each year,

living with a single parent or legal guardian, and low socio-economic status who qualify for free or reduced lunch.

Group 1 (JAG mentoring classroom)

The JAG program utilizes a class block of time that students are enrolled in an all year program and they will attend this class all four years of high school. The 53 students had support for their high school years in this elective class setting and with a teacher, called a Job Specialist, which supported them with all of their academic and home related issues. This added assistance was given to ensure that each student was successful in school and to help them build a foundation of positive choices for their future. The Job Specialist worked closely with the at-risk student and their families to safeguard that all basic needs of food, clothing and shelter were met for the students and their family.

Group 2 (At-risk students not in the JAG program)

The 53 at-risk population of students that were not in the JAG program were mainstreamed into the regular classroom setting and were not able to be in the JAG program because of classroom sizes. These students still received mentors who are school counselors, administrators and teachers within the school that these students attend. These mentors met with students regularly to discuss attendance, grades and any other issues with school or their home lives but they were not part of a structured mentor setting. Students were identified by the school system as at-risk if they have failed a grade, have poor attendance, or who were considered homeless and may possibly be a drop out to help support their families.

Instrumentation

Quantitative methodology was used to collect data for this study. The instrument used was the WIN career-ready assessment scores developed for states to test career-readiness of

students and potential work candidates (WIN learning, 2019). See Appendix D for sample questions and Appendix E for permissions for retrieval and use of test scores. For the purposes of this instrument the WIN career-ready assessment scores of third-year at-risk students were compared to determine whether the students in the JAG program have higher career readiness scores than their third-year at-risk peers that are not in the JAG program.

The instrument was developed by Worldwide Interactive Network to aide advanced manufacturers in 12 different states to determine if a potential employee is suited to work in their business and the state of S.C. initiated a mandate for all third-year students in high school to take the test to determine career readiness upon graduation (Hoffman et al., 2018; WIN learning, 2019). This component was also a part of the school's state report card and has been utilized over the past three years to show career-readiness for each third-year high school student. This assessment consisted of three sections. The *Applied Mathematics assessment* consists of 41 questions with a score range from 200-270, *Locating Information* has 31 questions with a score range from 200-250, and *Reading for Information* has 43 questions with a score range from 200-270 and each assessment allowing a 55-minute window of time for students to answer as many problems as time allows (S.C. Department of Education, 2019). This computer generated test was scored by WIN Learning center and numerical scores emailed to the local school district office and the state department of education within 60 days of examination (S.C. Department of Education, 2019).

This instrument was chosen based on its validity and measurement of a student's career readiness (WIN learning, 2019). The reliability statistics were run in this study and values addressed. The WIN learning assessments were designed in accordance with the nationally accepted Standards for Educational and Psychological Testing, developed by the American

Educational Research Association, the American Psychological Association, and the National Council on Measurement in Education, and the Uniform Guidelines for Employee Selection Procedures, adopted by the U.S. Equal Employment Opportunity Commission, the U.S. Department of Labor and the U.S. Department of Justice (WIN learning, 2019). The WIN Learning Ready to Work Assessments were developed and validated in collaboration with Measured Progress (measuredprogress.org), a national nonprofit leader in the standards based assessment industry. "WIN Learning has done due diligence to determine the validity of each of the assessments and has empirical data demonstrating that the test is predictive of or significantly correlated with important elements of work behavior which comprise or are relevant to the job or jobs for which candidates are being evaluated, in compliance with The Uniform Guidelines on Employee Selection Procedures (EEOC), Part 1607, S1607.4c, Evidence of validity" (WIN Learning, 2019).

Procedures

All consent forms from the district superintendent and confirmation from the Institutional Review Board (IRB) will be given before this study commences. See Appendix A for IRB approvals. The archival student data was pulled from PowerSchool and Enrich by the Assistant Superintendent in charge of testing and stored on a secure thumb drive and stored in a file cabinet in the researcher's home office. Upon completion the thumb drive will be cleared and all data deleted. This data was pulled by the district office and put into an excel spreadsheet with no student names attached. The student demographics were pulled which included race, gender and date of the assessment. Student data was discussed only with school district personnel and the JAG specialist as to whether a student participated in JAG program or not and to what means was the student considered at-risk.

Data Analysis

Three independent sample *t* tests were conducted to test the null hypothesis that analyzed the independent variables of the two groups of at-risk students to see the effect of their dependent variable WIN career-ready assessment scores at a 95% confidence level. The purpose for this independent sample *t* test as stated by Green and Salkind (2017) is to analyze the mean scores among two groups to identify mean differences among these groups. The dependent variable was measured on the interval scale and each test will be conducted independently.

The researcher began by screening the data by using box and whisker plots to examine for outliers. With n >50 an assumptions of normality were examined using a Kolmogorov-Smirnov with a significance value of $p > 0.05$ which is the preferred test for making comparisons with a normal distribution (Green & Salkind, 2017). The assumption of homogeneity of variance was examined using the Levene's test for Equality of Variance with possible no violations at $p > 0.05$ and a Bonferroni correction is needed to guard for type I errors (Gall et al., 2007). The alpha level is calculated to be: 0.05/3 = .0167, rounded to .02 (Warner, 2013). The Cohen's *d* statistic was computed to test for effect size by comparing mean and variance scores of the two groups. The effect size as measured by the Cohen's *d* statistic is determined by using 0.2 equals small effect size, 0.5 a medium effect size, 0.8 a large effect size and 1.0 a very large effect size. Descriptive statistics of mean and standard deviation were reported for each group of the independent variable. This is an appropriate test because it compared mean scores for two groups to explain presumed cause and effect (Gall et al., 2007).

CHAPTER FOUR: FINDINGS

Overview

The purpose of this non-experimental, causal-comparative study was to investigate the differences in mean scores for the WIN career assessment between at-risk students in the JAG program as compared to their at-risk peers not enrolled in JAG. The independent variable was the at-risk students in JAG and their at-risk peers that are not enrolled in the program. The dependent variable was the *WIN career assessment scores for Applied Mathematics, Reading for Information,* and *Locating Information.* The data for this study was a convenience sample of 106 students from one high school in a rural county in South Carolina. This study sought to address the gap in the literature regarding the differences in students' WIN career assessment scores among two at-risk student populations. The previous chapter detailed the methodology used in this study. Chapter Four will provide an overview of the research questions and null hypotheses, and additionally, this chapter will discuss the research findings, including descriptive statistics and results.

Research Questions

The research questions for this study were:

RQ1: Is there a difference in the *WIN assessment scores* in *Applied Mathematics* of third-year at-risk high school students between those enrolled in the JAG program and those not enrolled in the JAG program?

RQ2: Is there a difference in the *WIN assessment scores* in *Reading for Information* of third-year at-risk high school students between those enrolled in the JAG program and those not enrolled in the JAG program?

RQ3: Is there a difference in the *WIN assessment scores* in *Locating Information* of third-year at-risk high school students between those enrolled in the JAG program and those not enrolled in the JAG program?

Null Hypotheses

The null hypotheses for this study were:

Ho1: There is no statistically significant difference in the *WIN assessment scores* in *Applied Mathematics* for third-year at-risk high school students between those enrolled in the JAG program and those not enrolled in the JAG program.

Ho2: There is no statistically significant difference in the *WIN assessment scores* in *Reading for Information* for third-year at-risk high school students between those enrolled in the JAG program and those not enrolled in the JAG program.

Ho3: There is no statistically significant difference in the *WIN assessment scores* in *Locating Information* for third-year at-risk high school students between those enrolled in the JAG program and those not enrolled in the JAG program.

Descriptive Statistics

Descriptive statistics were obtained on the dependent variable, *WIN assessment scores* in *Applied Mathematics, Reading for Content* and *Locating Information*. The independent variable studied was at-risk students enrolled in the JAG program and at-risk students not enrolled in the program. Their mean scores and standard deviation are shown in the descriptive statistics found in Table 1.

Table 1

Descriptive Statistics – WIN assessments and JAG Enrollment

Results

Group Statistics

	JAG (Yes/No)	N	Mean	Std. Deviation	Std. Error Mean
WIN Applied Math Score	No	53	234.57	11.217	1.541
	Yes	53	232.87	9.735	1.337
WIN Reading for Information Score	No	53	241.81	11.563	1.588
	Yes	53	246.94	9.597	1.318
WIN Locating Information Score	No	53	227.32	6.986	0.960
	Yes	53	230.66	5.932	0.815

Data Screening

Data screening was conducted on each group's dependent variable. The researcher sorted the data on each variable and scanned for inconsistencies. No data errors or inconsistencies were identified. There were no outliers in the data, as assessed by inspection of boxplots. See Figure 1-3 for box and whisker plots for WIN assessment scores in *Applied Mathematics, Reading for Information and Locating Information*.

Figure 1. Box and whisker plots for *WIN Applied Mathematics Scores.*

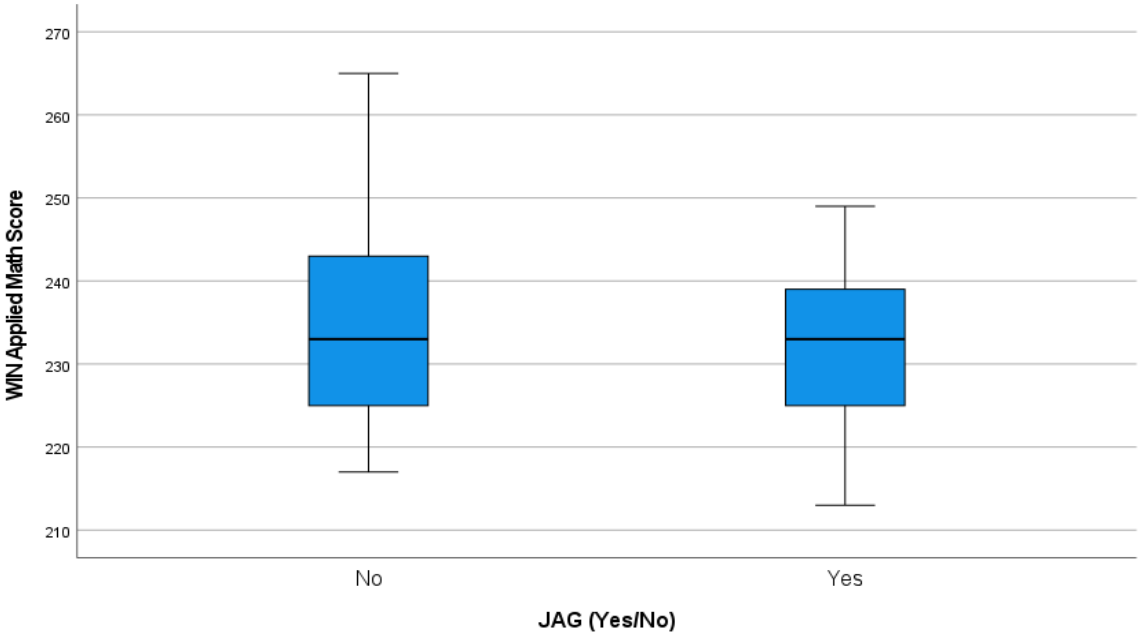


Figure 2. Box and whisker plots for *WIN Reading for Information Scores*[MP1].

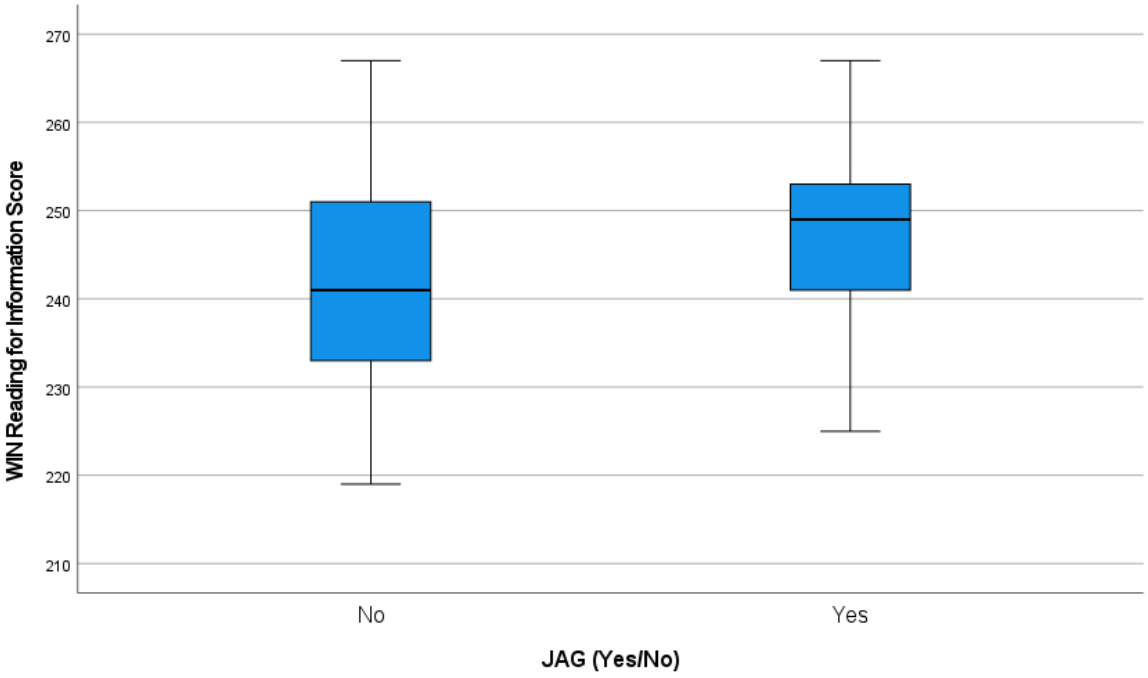
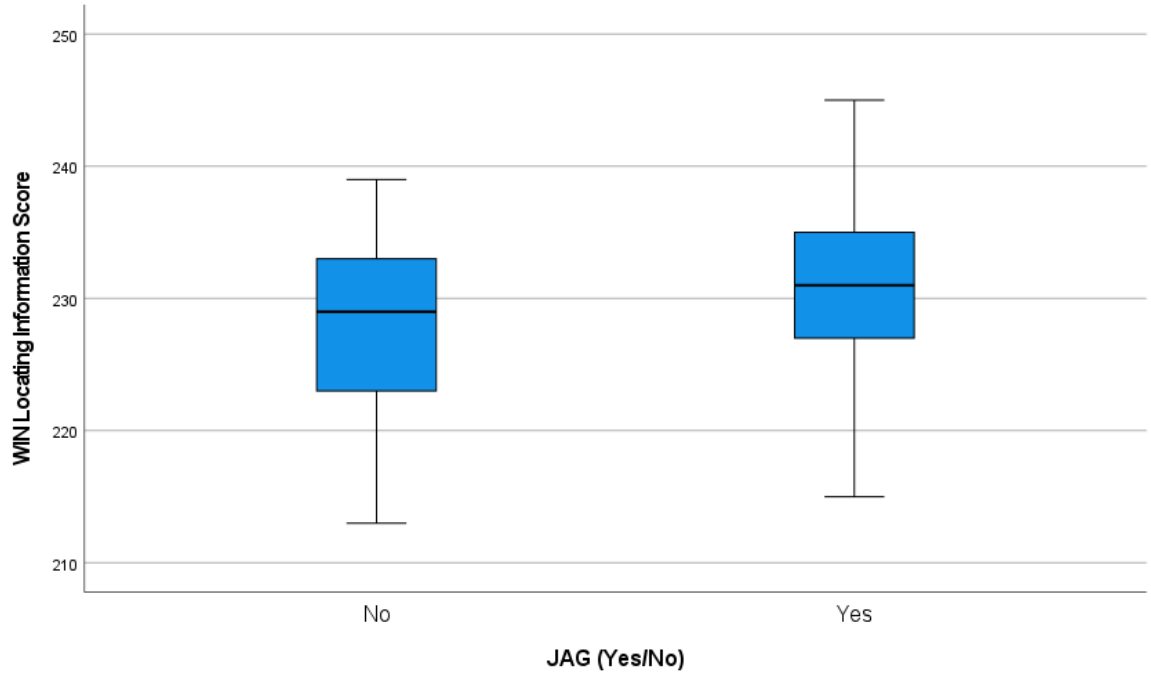


Figure 3. Box and whisker plots for *WIN Locating Information Scores*.



Assumption Tests

Three Independent Samples *t* tests were used to test the null hypotheses. The *t* tests required that the assumptions of normality and homogeneity of variance were met. Normality was examined using a Kilmogorov-Smirnov test. Kilmogorov-Smirnov was used because the sample size was greater than 50. No violations of normality were found as the WIN scores for all three tests were normally distributed, as assessed by Kilmogorov-Smirnov test ($p > 0.05$). See Tables 2-4 for Tests of Normality.

Table 2

Tests of Normality[a]

		Kolmogorov-Smirnov[b]		
	JAG (Yes/No)	Statistic	df	Sig.
WIN Applied Math Score	No	.107	53	.188
	Yes	.096	53	.200*

*. This is a lower bound of the true significance.
a. There are no valid cases for WIN Reading for Information Score when JAG (Yes/No) = .000. Statistics cannot be computed for this level.
b. Lilliefors Significance Correction.

Table 3

		Kolmogorov-Smirnov[b]		
	JAG (Yes/No)	Statistic	df	Sig.
WIN Reading for Information Score	No	.073	53	.200*
	Yes	.113	53	.088

*. This is a lower bound of the true significance.
a. There are no valid cases for WIN Reading for Information Score when JAG (Yes/No) = .000. Statistics cannot be computed for this level.
b. Lilliefors Significance Correction.

Table 4

		Kolmogorov-Smirnov[b]		
	JAG (Yes/No)	Statistic	df	Sig.
WIN Locating Information Score	No	.104	53	.200*
	Yes	.108	53	.182

*. This is a lower bound of the true significance.
a. There are no valid cases for WIN Reading for Information Score when JAG (Yes/No) = .000. Statistics cannot be computed for this level.
b. Lilliefors Significance Correction.

The assumptions of equal variances were assumed and the Levene's test for equality were run along with the independent samples *t* test on all three hypotheses at $p > 0.05$. See Tables 5-7 for the Levene's test results and the Independent Sample Tests. The assumption of equality of variance is tenable.

Table 5 – Independent Samples *t* test for WIN Applied Mathematics Scores

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
WIN Applied Math Score	Equal variances assumed	.775	.381	-.832	104	.407	-1.698	2.040	-5.744	2.348
	Equal variances not assumed			-.832	101.979	.407	-1.698	2.040	-5.745	2.349

Table 6 - Independent Samples *t* test for WIN Reading for Information Scores

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
WIN Reading for Information Score	Equal variances assumed	1.999	.160	2.486	104	.014	5.132	2.064	1.039	9.225
	Equal variances not assumed			2.486	100.585	.015	5.132	2.064	1.037	9.227

Table 7 - Independent Samples *t* test for WIN Locating Information Scores

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
WIN Locating Information Score	Equal variances assumed	2.687	.104	2.653	104	.009	3.340	1.259	.843	5.836
	Equal variances not assumed			2.653	101.339	.009	3.340	1.259	.843	5.837

Results for Null Hypothesis One

An independent samples *t* test was used to test the first null hypothesis regarding differences of *WIN Applied Mathematics career assessment scores* between at-risk students in JAG as compared to their at-risk peers not enrolled in JAG. Boxplots did not reveal any outliers in the data. WIN scores for both groups were normally distributed, as assessed by Kolmogorov-Smirnov's test ($p > 0.05$), and there was homogeneity of variances, as assessed by Levene's test for equality of variances ($p = 0.381$). The null hypothesis was failed to be rejected at a 95%

confidence level and with a Bonferroni correction of $p < 0.02$ to guard against a Type I error. The statistics were t (104) = -0.832, p = 0.407, d = - 0.525 as shown in Table 5. The p value shows no improvement in mean scores. JAG *WIN Applied Mathematics* scores (M = 232.87, *S.D.* = 9.735) were significantly lower than *WIN Applied Mathematics* scores of their at-risk peers not in the program (M = 234.57, *S.D.* = 11.217). Null hypothesis one was not rejected.

Results for Null Hypothesis Two

An independent samples t test was used to test the second null hypothesis regarding differences of *WIN Reading for Information career assessment scores* between at-risk students in JAG as compared to their at-risk peers not enrolled in JAG. Boxplots did not reveal any outliers in the data. WIN scores for both groups were normally distributed, as assessed by Kolmogorov-Smirnov's test ($p > 0.05$), and there was homogeneity of variances, as assessed by Levene's test for equality of variances ($p = 0.160$). The null hypothesis was rejected at a 95% confidence level and with a Bonferroni correction of $p < 0.02$ to guard against a Type I error. The statistics were t (104) = 2.486, p = 0.014, d = 1.58 as shown in Table 6. The effect size was very large. JAG *WIN Reading for Information* scores (M = 246.94, *S.D.* = 9.597) were significantly higher than their at-risk peers not in the program (M = 241.81, *S.D.* = 11.563).

Results for Null Hypothesis Three

An independent samples t test was used to test the third null hypothesis regarding differences of *WIN Locating Information career assessment scores* between at-risk students in JAG as compared to their at-risk peers not enrolled in JAG. Boxplots did not reveal any outliers in the data. WIN scores for both groups were normally distributed, as assessed by Kolmogorov-Smirnov's test ($p > 0.05$), and there was homogeneity of variances, as assessed by Levene's test for equality of variances ($p = 0.104$). The null hypothesis was rejected at a 95% confidence level

and with a Bonferroni correction of $p < 0.02$ to guard against a Type I error were t (104) = 2.653, p = 0.009, d = 1.31 as shown in Table 7. The effect size was large. JAG *WIN Locating Information* scores (M = 230.66, *S.D.* = 5.932) were significantly higher than their at-risk peers not in the program (M = 227.32, *S.D.* = 6.986).

CHAPTER FIVE: CONCLUSIONS

Overview

The purpose of this quantitative, causal-comparative study was to investigate if there are differences in *WIN career assessment scores* in *Applied Mathematics, Reading for Information,* and *Locating Information* between at-risk students enrolled in the Job's for Americas Graduates (JAG) program and at-risk students not enrolled in the program. The objective of this study was to narrow the gap in the literature regarding potential differences between the at-risk population that are enrolled in JAG and those that are not. The second objective was to use the data to inform school administrators of the benefits of the JAG program being offered as an elective course in high school. The independent variable was the at-risk students' placement in the JAG program or not enrolled. The dependent variables were the *WIN career assessment scores* in *Applied Mathematics, Reading for Information,* and *Locating Information.* This chapter will conclude the results obtained in this study and a discussion of these results, along with the study's limitations and recommendations for future research.

Discussion

The purpose of this quantitative, causal-comparative research study was to determine if there was a difference between WIN career-ready assessment scores of at-risk students enrolled in the JAG program as compared to their at-risk peers not enrolled in the program. This study offered a unique perspective on the possible advantages of at-risk students being enrolled in the JAG program. An overview of the study's findings, along with past research, will narrow the gap to improve at-risk students' career readiness.

The literature reviewed for this study highlighted the need for more research to understand if the JAG program offers significant aide to students enrolled that would improve

their career readiness. Much of the research studied for the at-risk population centered around academic interventions (Balenzano et al., 2018; Cho & Brown, 2013; Wilkins & Bost, 2016; Young et al., 2019) and project-based learning (PBL) (Cho & Brown, 2013; Geier et al., 2008; Hootstein, 1996; Lemley et al., 2014) and parental involvement (Afia et al., 2019; Benner, 2016; Gonzalez & Jackson, 2012; Suttie, 2016; Wells, 2013; Wilkins & Bost, 2016) and a substantial has been conducted involving mentoring programs including teacher based mentoring Alarcao, 2014; Cooper, 2014; (Caraway et al., 2011; Cooper, 2014; Cummings, 2012; Eastman, 2016; Ma, 2009; McClain, 2015; Olson, 2008; Simoes & Alarcao, 2014; Sire, 2009; Tschannen et al., 2013). The prior studies identified a gap in the research regarding the at-risk students enrolled in JAG and their career readiness upon graduation (Glasgow, 2009; LaKind et al., 2016; Simoes & Alarcao, 2014).

A considerable amount of research confirms the importance of career readiness for the at-risk population (Hirschi, 2011; Herrera et al., 2013; Pak & Desimone, 2019; Petcu et al., 2016; Pham & Murray, 2019; Young et al., 2011; Yvuz et al., 2019). The existing research, while extensive, fails to discuss the strategies and offer solutions to aid the at-risk population to excel in this area of career readiness. Furthermore, the lack of including the JAG program within this framework of career readiness, left a gap of information to be studied. The importance of discussing the JAG program provides proof of how a structured environment offered for the at-risk student aids them to be successful while in high school and after graduation (Caraway et al., 2011; Glasgow, 2009; JAG, 2019; Koeninger, 2015; S.C. Dew, 2020; Wells, 2013).

While the at-risk student first needs to obtain a high school diploma, this student also desperately needs to be career-ready after high school to ensure their success in life and to safeguard that they are not on public assistance (DeRidder et al., 2013; Eastman, 2016;

Moreland, 2007; Sergiovanni, 2005). The JAG program offers support to encourage the at-risk student to graduate high school and improve their quality of life by successfully building a career plan (Ausikatis, 2014; Budge & Parrett, 2016; Nunez et al., 2013; Smith, 2011). However, in the research findings regarding the benefits of the JAG program, there was no conclusive information about whether the JAG program produced students who were career-ready upon graduation. With nearly 16% of all students dropping out of high school in 2019 and not being career-ready (U.S. Department of Education, 2019), it is imperative that additional research be conducted.

This study utilized the WIN career assessment scores in *Applied Mathematics, Reading for Information,* and *Locating Information* developed by Worldwide Interactive Network (2019). For the purposes of this instrument, the WIN career-ready assessment scores of third-year at-risk students were compared to determine whether the students in the JAG program had higher career readiness scores than their third-year at-risk peers that were not in the JAG program. This assessment consisted of three sections. The *Applied Mathematics assessment* consists of 41 questions with a score range from 200-270, *Locating Information* has 31 questions with a score range from 200-240, and *Reading for Information* has 43 questions with a score range from 200-270 and each assessment allowing a 55-minute window of time for students to answer as many problems as time allows (S.C. Department of Education, 2019). This computer-generated test is scored by WIN Learning center and numerical scores emailed to the local school district office and the state department of education within 60 days of examination (S.C. Department of Education, 2019).

The first research question hypothesized that there was no difference in the *WIN assessment scores* in *Applied Mathematics* of third-year at-risk high school students between

those enrolled in the JAG program and those not enrolled in the JAG program. The results of this study indicated from a *t* test that there was no significant difference, and the null hypothesis was failed to be rejected at a 95% confidence level where the JAG *WIN Applied Mathematics scores* (*M* = 232.87, *S.D.* = 9.735) had lower mean scores than other at-risk students not in the program (*M* = 234.57, *S.D.* = 11.217). The results show that JAG does not put an emphasis on Mathematics and therefore does not show significance in their mean scores from the WIN assessment. The JAG curriculum does not emphasize applied math as it does communication and comprehension of job skills (JAG, 2019). Considering that the program weighs heavily on the soft skills to maintain and excel in a work environment may result in the lack of mathematics skills being taught by the Job Specialist in the JAG classroom.

The second research question hypothesized that there was a statistically significant difference in the *WIN assessment scores* in *Reading for Information* for third-year at-risk high school students between those enrolled in the JAG program and those not enrolled in the JAG program. An independent samples *t* test was used to test the second null hypothesis regarding differences of *WIN Reading for Information career assessment scores* between the two groups. WIN scores for both groups were normally distributed, as assessed by Kolmogorov-Smirnov's test ($p > 0.05$), and there was homogeneity of variances, as assessed by Levene's test for equality of variances ($p = 0.160$). The null hypothesis was rejected at a 95% confidence level and with a Bonferroni correction of $p < 0.0167$ to guard against a Type I error. The statistics were $t(104) = 2.486$, $p = 0.014$, $d = 1.58$. The effect size was very large. JAG *WIN Reading for Information* scores (*M* = 246.94, *S.D.* = 9.597) were significantly higher than their at-risk peers not in the program (*M* = 241.81, *S.D.* = 11.563).

The third research question hypothesized that there was no statistically significant difference in the *WIN assessment scores* in *Locating Information* for third-year at-risk high school students between those enrolled in the JAG program and those not enrolled in the JAG program. A *t* test was used to test the third null hypothesis regarding differences of *WIN Locating Information career assessment scores* between at-risk students in JAG as compared to their at-risk peers not enrolled in JAG. The null hypothesis was rejected at a 95% confidence level where JAG *WIN Locating Information scores* (*M* = 230.66, *S.D.* = 5.932) was significantly higher than other at-risk students not in the program (*M* = 227.32, *S.D.* = 6.986). This skill is taught throughout the four years that a student is enrolled in the JAG program, where the Job Specialist mentors the students to career success (JAG National, 2019). Fortunately, the WIN career assessment can be utilized to address whether a student is career-ready.

Before 2015, states did not have a clear option to understand whether a graduating student was ready for life after high school and had a career plan in place (WIN Learning, 2019). The at-risk population has more problems than the average student and therefore needs to be mentored and guided to successful pathways as evidenced by prior research (Balenzo et al., 2018). Fortunately for some students the JAG program has been introduced in their school setting, and a dedicated Job Specialist is available to guide them for four years, in an elective classroom, to be career and life ready upon graduation from high school (JAG National, 2019). The struggling student needs to be able to envision their future past tomorrow, and through the encouragement of the JAG program, they are able to see a brighter path.

Implications

The results of this quantitative, causal-comparative research study of the WIN career-ready assessment scores of at-risk students enrolled in the JAG program as compared to their at-

risk peers not enrolled augments the reasons behind mentoring the at-risk student. This study provides a unique look into the difference in mean scores among two groups of at-risk students, which is an area that has not been researched prior. In addition, this study also revealed the strengths and weaknesses of the WIN career-ready assessment scores for the at-risk population involved in the JAG program.

Student career-readiness has been found to be a key factor to the academic and life success of the at-risk population (Brophy, 2010; Dougherty & Lombardi, 2016; Eastman, 2016). The students' career plan supports the individual in continuing to grow and strive for high achievements in life. This plan affects all students, and states have adopted the career readiness model to study students' success after graduation and to determine the factors of support students need to be successful in life (WIN Learning, 2019). It is imperative to continue a study of all students and especially those that are at-risk, to ensure students move out of poverty and away from criminal backgrounds to provide for their families. The research presented within this study could affect all of society by contributing to the body of knowledge of career readiness and the success of the at-risk student through the JAG program.

The results of this study indicate that the at-risk students in the JAG program outperform their at-risk peers in *Reading for Information* and *Locating Information,* as suggested by their mean scores from those two assessments. The JAG program emphasizes the importance of reading comprehension and works closely with the students' English teachers to ensure that all students in the program are reading and comprehending on or above grade level. The Job Specialist in the JAG program helps to achieve these goals of success by first creating a trust relationship with each student by helping those students meet all of their physical and emotional needs first. The student bond with the Job Specialist serves to bring the student to work harder to

achieve goals set at the beginning of each school year. This study also suggests that while there is significance in two of the three areas assessed, there is further work to be accomplished in the field of Mathematics.

Additionally, previous research indicates that the at-risk student faces many obstacles as they go through life such as low-socioeconomic status (Brophy, 2010; Brunner, 1966; Budge & Parrett, 2016), homelessness (Hyman, 2011; Smith, 2011; Wilkins & Bost, 2016) and lack of parental support (Afia et al., 2019; Cooper, 2014; Gonzalez & Jackson, 2012; Suttie, 2016; Wells, 2013). These difficulties create problems in grade retention (Klapproth et al., 2016; Young et al., 2019) and lower class placement (Ausikaitis, 2014) which ultimately causes the at-risk population to lose interest in school and places them in the drop-out category (Cho & Brown, 2013). With this in mind, school administration and guidance counselors can encourage students in their yearly meetings and schedule these students with teachers that will offer support and assistance when they see this group of students falling behind. This encouragement is offered daily through the JAG program and to the most vulnerable population of students in the school setting. Not only are these students being encouraged and supported daily, they are achieving higher scores in their career assessment tests, as demonstrated by this study. The full administrative staff, along with Job Specialists and mentors, can enlighten these students to become successful and pass that success on to the next generation of students.

Finally, research has shown that the classroom teacher or mentor contributes to the overall success of the at-risk student by supporting this student through high school graduation (Cooper, 2014). These teacher mentors instill positive qualities that each struggling student may not have the opportunity to grasp if they are not placed in the correct setting (National Commission on Excellence in Education, 1983). Findings such as these promote the importance

of the JAG classroom and others like this program by offering students a place of encouragement and support. This classroom can provide explicit instruction in reading comprehension to enable students to feel more confident in their English classrooms, or this class could offer a safe environment to learn how to lucratively learn a trade to provide an income for their family's needs. Research conducted by Hutchins and Akos (2013) shows that when a student can trust their teachers or mentors, the student is more likely to be successful in the classroom. Simply put, the teacher is a key element to the success of their students.

Limitations

The results of this quantitative, causal-comparative study investigated the WIN career-ready assessment scores of at-risk students enrolled in the JAG program as compared to their at-risk peers not enrolled in the program. Although the study narrows the gap in the research regarding the *Reading for Information* and *Locating Information* assessments, there are limitations that need to be addressed. There are four specific limitations to this study: the sample population, the JAG research, the causal-comparative study, and the WIN career assessment.

The first limitation relates to the sample population. Primarily, the study lacked diversity in that all students utilized attend one rural high school in South Carolina. As discussed in Chapter Three, the entire school is free and reduced lunch, and therefore all students are considered to be at-risk for dropping out. The entire high school only has 173 students, and of those students, one-third of them are in the JAG program. Consistently, the results of this study cannot be generalized to other school settings inside South Carolina or other student populations around the U.S.

The second limitation relates to the lack of JAG research. The JAG program, as discussed in Chapter One, has been in existence since 1980, but in that time, there have only been a few

studies completed that have shown the significance of the program, and there is no study that has looked at career-readiness. The lack of peer-reviewed studies of the JAG program, suggested to offer this study as a generalized one, may not be enough information to give unwavering results (JAG National, 2019).

The third limitation shows that with the causal-comparative study, the research occurs ex post facto and therefore the researcher has no control over the variables. In addition, there are other variables besides the independent variables that may impact the dependent variables which is referred to as reverse causation. Lastly, the inability to construct random samples because the events or actions have already occurred (Gall et al., 2007). To overcome this situation, the researcher must test several different theories to understand if there are other variables affecting the dependent variable and to reinforce the study, testing of the hypothesis on several different population samples .

The final limitation concerns the instrument utilized in the study. The WIN career readiness assessment was developed by World Integrated Network (2019) was selected because of its reliability, validity, and ease of implementation. While the WIN instrument has been utilized by many federal offices, the WIN company could not offer numerical data to concretely prove validity. Despite the validity offered by many agencies, there is a possibility that another instrument would have provided more insightful results.

Recommendations for Future Research

The recommendations for future research derive primarily from the limitations outlined in the previous section. The following are recommendations for studies that can build on the existing study and add to the body of research:

1. Conduct the current study by utilizing students enrolled in more diverse schools in the state of South Carolina or the U.S.
2. Incorporate other variables such as gender, race, or grade point average.
3. Include a more diverse student population, including students from higher socio-economic status.
4. Conduct another study using a different instrument. For example, have students in the study take the Work Keys assessment instead.

Conclusion

Research has documented that students that are considered to be at-risk of dropping out of high school need a mentor or specialized program that can support them through school. These students come from lower socio-economic backgrounds, and they may live with one parent, a surrogate parent, or many are homeless. Acadmeic school failure could result from the at-risk students' barriers to success. However, the JAG program and other mentoring programs offer at-risk students a different pathway to master their acadmic careers. Through the JAG program, a student may not only thrive and do well in school, but they may be successful in a career and in life after high school. The current findings of this study suggest that the students in the JAG program outperform their at-risk peers in two areas of career readiness, *Reading for Information and Locating Information*. It is imperative that research continues in order to improve the quality of life for the at-risk population.

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APPENDIX A

IRB Approval

Date: 3-22-2021

IRB #: IRB-FY20-21-494
Title: FROM AT-RISK TO GRADUATION: A CAUSAL COMPARATIVE STUDY OF MENTORING THE AT-RISK STUDENT WITH THE JAG MODEL
Creation Date: 12-18-2020
End Date:
Status: Approved
Principal Investigator: Stacy Carlton
Review Board: Research Ethics Office
Sponsor:

Study History

Submission Type Initial	Review Type Exempt	Decision Exempt

Key Study Contacts

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APPENDIX B

JAG Barriers to Success

Participant Profile: Barriers		
Participant's Name:		
☑	Please check barriers and supply information where requested.	
	A.1	One or more model grades behind peers.
		Number of grades:
	A.2	Has repeated a grade in high school.
	A.3	Low academic performance (a grade point of C or below or basic skills in the bottom quartile of the class.
	A.4	Basic skills deficient (reading and math in particular.
	A.5	Limited English proficiency.
	A.6	Did not pass the state proficiency exam. Portions which still need to be passed: ☐ Reading ☐ Writing ☐ Math ☐ Science ☐ Other
	A.7	A past record of excessive absences as verified by school officials.
	A.8	Has been suspended, expelled, or put on probation during high school.
	A.9	Has dropped out of school previously. High School Attended: Last Grade Level Completed:
	E.1	Family environment not conducive to education or career goals.
	E.2	Mother did not graduate from high school.
	E.3	Father did not graduate from high school.
	E.4	Mother does not work.
	E.5	Father does not work.
	E.6	Is pregnant.
	E.7	Has dependent child(ren) in the home.
	E.8	Is parenting.
	E.9	Has documented alcohol and/or substance abuse.
	E.10	Convicted of a criminal offence other than a traffic violation. Offense:
	E.11	Has a record of violent behavior.
	E.12	Homeless.
	E.13	Runaway.
	E.14	Requires child care during work or school.
	E.15	Needs transportation to and from work or school.
	O.1	Other Explain:
	P.1	Special education certified.
	P.2	Lacks motivation or maturity to pursue education or career goals.
	P.3	Emotional disorder which impairs education or career goals.
	P.4	Has a disability. Disability:
	P.5	Health problems which impair education or career goals.
	W.1	Is an economically disadvantaged student as define by public assistance, TANF, or free lunch.
	W.2	Having inadequate or no work experience.
	W.3	Lacks marketable occupational skills that are in demand in the local labor market.

APPENDIX C

BIBLICAL PRINCIPLES RELATED TO EDUCATION

1. Each person is created with a divinely ordained destiny and life purpose.
   Eph. 2:10; Jer. 29:11
2. Each person has two aspects of being—material and immaterial.
   Heb. 4:12; Gen. 2:7; John 3:6
3. All that animates a person (e.g., thinking, emotions) is spiritual in nature.
   Gen. 2:7; Gen. 1:27; Ps. 139:13–14; Prov. 27:19
4. At salvation, the spirit of the individual is linked to God.
   I Pet. 2:23; I Cor. 2:12; John 1:13; John 14:16–17
5. There is an indivisible interaction between body and spirit.
   Gen. 2:7; Prov. 23:13–14; I Cor. 6:18–19; Prov. 17:22
6. The selfishness of flesh refuses to surrender to God and His ways.
   Rom. 7:21; Prov. 19:3; Col. 1:21; John 15:18; Rom. 7:5
7. Motivations operate from inside outward.
   James 1:14; Heb. 8:10
8. There is an age of accountability before God.
   Is. 7:14–16; Rom. 1:20; Deut. 1:39
9. Each person has God's laws written on his/her heart.
   Rom. 2:15; Rom. 1:18–20; Heb. 8:10; Acts 14:17; Heb. 10:16
10. Each person has an inherent understanding of who God is.
    Rom 1:18–20; Rom. 2:15; Ps. 19:1–4
11. Each person has a conscience that responds both to God and to the world.
    Rom. 1–2; I Cor. 8; Acts 24:16; II Cor. 1:12
12. Each person has a primary motivation to be his or her own god.
    Gen. 3:22; Rom. 1; Rom. 7:21; Ps. 12:4; Is. 29:13; Prov. 30:9; Eph. 4:19
13. The flesh dies to self when tolerance for discomfort is exceeded.
    Prov. 20:30; Prov. 22:15; Ps. 119:71; I Pet. 4:1; Rom. 6:6-7
14. Each person builds, starting even in the womb, an internal model of the world.
    Luke 1:44
15. Disequilibrium is a primary catalyst for learning.
    Job; I Pet. 1:11; Jos. 4:6; Matt. 13:34–36
16. Love and kindness function to destroy the basis of anger, resentment, and other negative dispositions.
    I Cor. 13; Rom. 2:4; Prov. 15:1; II Chro. 10:7
17. People are made in God's image, which includes being a moral being.
    Gen. 2:7; Gen. 1:26–28; Ps. 8:6–8; Ecc. 3:11
18. People are made in God's image, which includes being a moral being.
    Gen. 2:7; Gen. 1:26–28; Ps. 8:6–8; Ecc. 3:11
19. A person's moral being is created to operate consistently with God's moral/spiritual laws.
    Rom. 2; I Pet. 1:16; Lev. 11:44
20. People are equipped to think the way God thinks.
    Gen. 2:20; Ps. 103:7; Rom. 12:2
21. Personal relationship is the basis for personal responsibility.
    Rom. 6:16; Ps. 115:8; Amos 3:7; Matt. 22:37; Deut. 6:5–9

22. The natural mind cannot understand the things of the Spirit.
    I Cor. 2:14; II Cor. 4:4; John 14:16–17
23. The desire to learn is as natural to humans as the desire to eat, sleep, etc.
    Gen. 1:26–28; Jos. 4:6; Luke 2:46–47
24. People are motivated to be competent.
    Gen 1:26–28; Acts 17:26
25. People are motivated to achieve or at least move closer to the "ideal."
    Gen. 1:26–28; Eph. 2:10; Eph. 1:11–12
26. People are motivated to interpret for meaning.
    Jos. 4:6; Gen. 2:25; Ps. 119:97; Gen. 41:15
27. People are motivated to experience pleasure and avoid pain.
    Gal. 6:9; Prov. 30:7–9; Heb. 12:1–11; Gen. 3:8–10; Job 29:4–6
28. People are created to operate with structure or boundaries.
    Gen. 2:8; Gen. 2:16–17; II Tim. 2:5; Prov. 5:22–23
29. People are motivated to be self-governing.
    Titus 2:5; II Tim. 1:7; Gen. 2:17; Job 31:1; Dan. 1:8; Ezra 7:10; I Pet. 5:8–9
30. People are motivated toward ongoing satisfaction or affirmation in the following areas:
    a. love — Gen. 1:26, 28; Rom. 13:8; Matt. 5:44
    b. dignity — Philippians 4:8; I Tim. 2:1–2; I Tim. 3:8
    c. security — Deut. 12:10; Jos. 1:9
    d. acceptance — Eph. 1:3–6; John 1:12
    e. esteem — Prov. 22:1; Ecc. 7:1
    f. responsibility — I Chro. 28:9; I Tim. 3:1
31. The regenerated spirit actively hears from God even if not heard audibly or consciously.
    Matt. 4:4; John 6:32; John 6:63; I Tim. 4:6; John 10:3–4, 27
32. Each person is created with some type of inherent "knowledge structure."
    Gen. 2:19–20; Heb. 8:10
33. A person's self-concept determines how he or she reacts to the world.
    I Sam. 30:6; I Sam. 9:21; Num. 13:33; I Cor. 15:8–10; Gen. 3:1–6; Rom. 12:1–2; Job 2:7–9
34. People respond to the world by way of their internal model of the world rather than via how the world might really be.
    Gen. 3:1–6; Rom. 12:1–2; Job 2:7–9
35. People live up or down to the expectations of others.
    Gen. 3:7; II Tim. 2:4; Eph. 5:8–10
36. Those who do wrong are motivated to:
    a. get rid of righteous standards. — Gen. 4:8; Matt. 23:33–35
    b. invite others to engage in same behavior. — Gen. 3:6; I Kings 21:25–26
    c. blame someone else. — Gen. 3:12–13; James 1:13–15
37. Internal governance develops at least in part through early external guidance.
    Prov. 22:6; II Cor. 1:8–9; Eph.6:4; Deut. 6:4–9
38. People are created to please God and to be pleased in pleasing God.
    I Thess. 4:1; II Cor. 5:9
39. People are motivated to understand cause and effect.
    Gen. 1:26–28; Prov. 22:8; Gal. 6:7–10
40. People are motivated to take dominion.

Gen. 1:26–28; Ps. 8:4–6

41. People are created as social beings.
    Gen. 2:18; Ecc. 4:9–12
42. Growth comes through overcoming resistance.
    Gen. 3:3–5; Rom. 5:3; James 1:2–4
43. Choice is an inborn motivation.
    Deut. 11:26–28; Deut. 30:19
44. Parents are responsible to train their children in God's ways.
    Eph. 6:4; Prov. 13:24
45. People are created to walk under authority.
    Eph. 6:1–3; Exo. 20:12