

AN ABSTRACT OF THE DISSERTATION OF

Michael James Sisemore for the degree of Doctor of Education

Presented on March 26, 2020.

Title: A HIGH SCHOOL INTERNSHIP PROGRAM AS AN
INFORMED DECISION-MAKING INFLUENCE: A QUANTITATIVE
CASE STUDY

Abstract approved:

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This study examined the change of College and Career Readiness (CCR) perceptions high school students reported as a result of a semester long internship program. The primary perceptions being measured included informed decision making, career choice awareness, college choice awareness, and clarity of the students futures after high school. This quantitative case study was grounded in Conley's (2008) defining work on CCR of high school students. Fifteen high school students that completed the internship program replied to pre and post program surveys. The data analysis suggests that internship program interventions can provide high school students with experiences that broaden their understanding of choices and their ability to make informed forward-looking decisions. A Mann-Whitney U analysis did not reveal a statistical significance. However, the results demonstrated practical significance within six constructual factors including, Decision making confidence, education and community awareness, skills and interest confidence, career choice confidence, college choice confidence, and external influences. The data led the researcher to suggest that a broad longitudinal study be conducted across many internship programs that would inform an innovative high school curriculum to redefine CCR as its needs evolve. Limitations of the study are discussed as are additional recommendations.

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A HIGH SCHOOL INTERNSHIP PROGRAM AS AN INFORMED
DECISION-MAKING INFLUENCE: A QUANTITATIVE CASE STUDY

By

Michael James Sisemore

A DISSERTATION

Submitted to

Plymouth State University

In partial fulfillment of

The requirements for the

Degree of

Doctor of Education

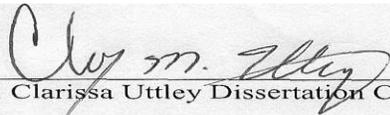
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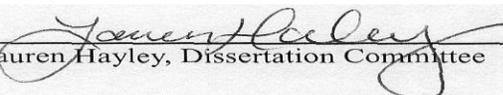
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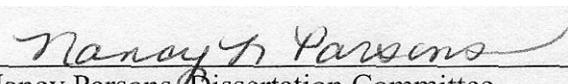
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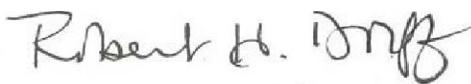
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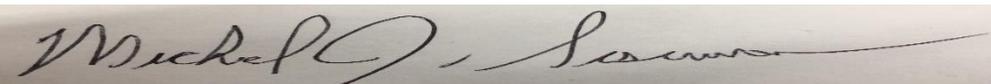

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I understand that my dissertation will become part of the permanent collection of Plymouth State University, Lamson Learning Commons. My signature below authorizes the release of my dissertation to any ready upon request.



Michael James Sisemore, Author

ACKNOWLEDGEMENTS

It is not lost on me that this journey began almost exactly 21 years ago on April 1, 1999 as I took my first steps on a thru-hike of the Appalachian Trail. The trail may have come to an end, but the adventure has simply changed venue many times through the years. It has never been a solitary journey, even when I travelled alone. What successes I have enjoyed over the years have come on the shoulders of many who have supported me in what I call my second life.

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My daughter Natalie has inspired me to always be a better teacher and daddy. I hope that seeing your parents work very hard to accomplish what we want for ourselves and our family inspires you to seek out what will bring you fulfillment in life and work to accomplish whatever it is that you wish to become in life.

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DEDICATION

This dissertation is dedicated to the departed whose timely interventions and encounters made all that I have possible. You may have departed the physical world and cannot be here in person to share in this moment, but know that you have inspired, motivated, and pushed me to be better tomorrow than I am today; and as all journeys, this one began with a single step.

Chapter 1

College is often seen as the only natural path to achieve the American Dream, however, simply creating the desire and aspirations to attend an institute of higher education is insufficient to equate success in these endeavors (Perna, 2006). The quality of education and opportunities students receive in high schools across the United States varies greatly in regard to college preparation, counseling, and job skills awareness and acquisition (Adelman, 2006; Johnson, 2008; Reynolds, Stewart, MacDonald, & Sischo, 2006). Subsequently, additional disadvantages will be present for already disadvantaged students, and potentially entire districts in need of improvement, that lack the funding and resources to provide an adequate level of college and career readiness preparation (Perna, Rowan-Kenyon, Swan, 2011; Reynolds et al., 2006).

The importance of a college degree has long been understood as the academic relationship between education and a successful career (Carnavale, Smith, & Strohl, 2013). In the early 2000's Conley (2008) coined the term College and Career Readiness (CCR). The concepts underlining CCR were designed to highlight the importance of a students need to be prepared, upon graduating high school, to be capable of demonstrating a level of competence in higher education, the job market, or skills acquisition tracks (Conley, 2008). Being college and career ready is presently looked upon as a measurement of a student's ability to successfully enroll in a college or university (Conley, 2002, 2008, 2013; Jacobs, 2010; Gamboa, Paixao, & de Jesus, 2013; Gold & Rodriguez, 2018). Specific research studies by Conley (2008, 2013), focusing on the needs of higher education and business industries, were used to

determine how college and career readiness (CCR) can be used as a measurement for high school student's preparation for their post-high school lives.

Background of the Study

Prior to the Serviceman's Readjustment Act of 1944 (GI Bill's introduction of educational benefits that were provided to the veterans of World War II) fewer than 20 percent of high school graduates took on the additional challenge of higher education (Cummings et al., 2004). The prior generations of plentiful and career-oriented jobs that industrial and manufacturing juggernauts of the American economy created did not provide the incentive nor the need to pursue additional education (Education and Training, 2013). After the conclusion of World War II, roughly 16 million servicemen returned home (Education and Training, 2013). These millions of people could have displaced an equal number of millions of newly employed minority group status members that had traditionally encountered difficulty in accessing meaningful employment (Education and Training, 2013). Instead approximately 7.8 million war veterans took advantage of at least some form of education or jobs training program by the time the original G.I Bill ended in 1956 (Education and Training, 2013). This newly educated generation was responsible for the post war economic and social expansion of the 1950's and 1960's.

This economic expansion led parents of the post-war (World War II) generation identified as the baby-boomers to begin looking at higher education as something that was attainable for many demographics, including women and ethnic minorities, that were previously excluded (Cummings et al., 2004). The economic growth of the 1950's and 60's created a culture that appreciated a college education that could

improve one's potential to create an individualized career and life path. Cummings et al, (2004) examined the evolutionary history of the changes in the significance and choice of college since the 1940's and acknowledges that gradually the cultural importance of higher education began to become less exclusive and more of an expectation (Pulliam & Van Patten, 2013). Potential college students no longer needed to come from a wealthy family or have influential connections to become a qualified and respectable attendee at a college or university (Cummings et al. 2004; Pulliam & Van Patten, 2013).

Students perceptions of the practicality of attending college has also changed over time (Cummings et at., 2004; Pulliam & Van Patten, 2013). As a student's perception of what is possible and required for success began to evolve, the more that student was likely to initiate and pursue higher education as a means of attaining their dreams and goals (Cummings et al., 2004; Pulliam & Van Patten, 2013). Eventually, the formerly impossible goals of a college education for individual students became the cultural norms of a society expected to be followed by the majority rather than the entitled elite (Bureau of Labor Statistics, 2016). Cultural norms offer no guarantee of professional success, yet the authors (Cummings et al., 2004; Perna, Rowan-Kenyon, & Swan, 2011) research concludes that social expectations of success have led to college enrollment being perceived as a norm. Career indecision that would have often been experienced by graduating high school students has been postponed with a ubiquitous enrollment in college programs. Students now hope to figure out what they want to do with their lives while paying tuition, room, and board at expensive colleges across the United States (Santos, Ferreira, & Goncalves, 2014; Vignoli, 2015).

Regardless of their eventual career interest and attainment, as student's exploration of possible career options increase, there is a reduced career choice anxiety felt by high school students (Lent, Ezeofor, Morrison, Penn, & Ireland, 2015; Santos, Ferreira, & Goncalves, 2014; Vignoli, 2015). Career indecision can be reduced with a greater awareness and understanding of options (Gamboa et al., 2013). As demand for college placement began to outstrip the supply of available enrollment, the shortage became a barrier to consumption for those students who desired a college education. To address the need for more physical college space to meet the increasing demands of students, a nationwide expansion plan for more community colleges was put into action at the recommendation of President Truman's Commission Report of 1946 (Cummings et al., 2004; Peters & Wooley, 2014; Pulliam & Van Patten, 2013). Gilbert and Heller (2010) assessed that a priority of the expansion plan, that was seen by the reports committee as essential to its success, was physically building more community colleges, and creating a vision and purpose for the schools to aspire to meet. Only 600 two-year colleges existed in the United States at the time the report was issued, but as of 2007 over 1,000 two-year colleges were operating (Gilbert & Heller, 2010). As recently as 2017, 1485 two-year public and private post-secondary institutions were operating (Duffin, 2017).

Advances in the higher education system in the United States were made across the nation including the dismantling of segregation in public schools beginning with the 1954 *Brown v. Board of Education* Supreme Court case. *Brown* has been credited as a catalyst for opening the possibilities and human potential that education afforded to all Americans. A decade after the landmark *Brown* ruling came the *Civil*

Rights Act of 1964 that provided protection from discrimination that was based on race, ethnicity, gender, religion, or national origin. The following year President Lyndon Johnson signed the *Higher Education Act* into law, providing federal funds to higher education institutions and students in the forms of low interest loans, grants, and scholarships. As these initiatives were enacted and put into practice, more and more people were beginning to perceive college as an attainable and pragmatic means to a successful career. The elimination of, or at least substantial reduction in financial and social barriers rapidly changed the demographic representations in higher education (Cummins et al., 2004; Pulliam & Van Pattern, 2013).

As the economy was expanding, it was also changing. Changes were seen in manufacturing and industries that was benefitting from the increased education capacity (Gilbert & Heller, 2010). As entrepreneurialism and innovation were making technological leaps in higher productivity and more efficient manufacturing processes, business began moving to cheaper labor resources in foreign markets (Torlina, 2011). Additionally, the advancements with industrial robotics, increased worker productivity and workforce reduction practices in the 1970's – 1980's resulted in millions of manufacturing jobs being lost to cost-cutting measures embraced by most American businesses (Torlina, 2011). This lack of entry level and semi-skilled labor positions created an even greater demand for higher education options. Blue collar workers and skilled trades began to fade into a stereotypically degrading job for those who could not succeed in higher education (Baum & Payea, 2004; Carr & Kefalas, 2010). However, communities with higher education institutions generally saw economic

growth in proportion to communities with a highly educated workforce (Carnavale et al., 2013; Fatima & Paulsen, 2004; Perna, 2006).

Higher education became in such demand that colleges and universities grew more inclusive to accommodate more students and increased the cost of attendance at rates far above the national inflation and wage growth levels (Cummings et al., 2010). A report by College Board (2016) showed that tuition increased at 4-year public colleges 150% from 2000 to 2016. Another report compiled by the U.S. Census Bureau (2017) revealed that median incomes rose a mere 18% in the same time period. Cummings et al. (2010) theorized that as standardized test scores became the benchmark of academic success and ability for high school students across the country; universities used them as a modern form of segregation as higher numbers of students in poorly served districts were unable to attain these high marks of distinction. The low scores on standardized tests prevented many disadvantaged high school graduates from accessing student loans, grants, and scholarships (Castro, 2013; Karr & Kefalas, 2010). For-profit colleges began to fill the gap created by public institutions and traditional colleges began offering students more creative and diverse content areas to pursue as a major for their concentration of studies (Cummings et al., 2004; Mondale & Patton, 2001).

Problem of practice

If graduating from high school is a practical rubric for measuring a student's college and career readiness as Conley (2002, 2008, 2012) has presented, this researcher wanted to know why so many students entering higher education were not succeeding. High school students seem to have little or no perception of opportunities beyond higher education or entry level jobs as they leave the 12th grade (Cummings et al., 2004; Perna, Rowan-Kenyon, & Swan, 2011). This lack of knowledge and understanding of the opportunities and choices that are available to an informed student have led to increasing student loan debt, and a failure to launch for millions of young people (Marano, 2016). This concept of failing to launch has been called an epidemic by Marano (2016) as it applies to young people generally between the ages of 18 and 34 who have not gained the confidence and self-sufficiency to thrive on their own. Sending teenagers to college with limited awareness of the expected outcomes and pragmatic understanding of self-efficacy and informed decision making is problematic (Martinez, Baker, & Young, 2017).

Considering the evolution and expansion of college in America over the past 70 years, there has been much discussion over the modern purpose and application of high school education in our current times (Marin, Bragg, & Hackman, 2017; Perry, 2002; Segal, 2013). It has become a common understanding that high school is purposed with preparing students for an immediate transition into college, or the job market (Cummings et al., 2004). Former President Barack Obama signed into law The Every Student Succeeds Act (ESSA) in December of 2015. This law very clearly declared a requirement that the end result of a high school education would result in

graduates who had been taught to a standard that would leave them prepared to succeed in college and careers (Every Student, 2015). Yet very little is being done in high schools across the America to prepare students to make ruminative forward-thinking decisions about college and career choices (Gamboa et al., 2013; Lent et al., 2016; Mullin, 2012; Onen & Kocak, 2012; Santos et al., 2014).

The Bureau of Labor Statistics (2017) reported that nearly 70% of high school graduates enrolled in college in 2016. This level of enrollment of students into a college or organization for higher learning demonstrates a strong degree of academic interest (Bureau, 2017). However, there is a serious disconnect in the level of enrollment compared to the rates of graduation of those students who do attend a 4-year college or university program and the employability of former high school students with and without college degrees (Education, 2010; Mullin, 2012).

Per a Harvard University study (Symonds, Schwartz, & Ferguson, 2011), fewer than 50% of college freshmen will have earned a bachelor's degree in six years (Education, 2010). Educators, administrators, and current high school students should interpret this data as an indication that students entering higher education are uninformed and ill prepared for life after high school. If fewer than half of the freshman college students go on to earn a diploma of any kind in post-secondary education, questions should be asked about how to better prepare high school students to make informed decisions about their own futures. Pragmatism suggests that better preparations could be accomplished while they are still within the supported confines of a high school program that would nurture the ability to develop a thoughtful

approach to determining what to do after high school (Onen & Kocak, 2012; Pulliam & Van Patten, 2013; San Diego State University, n.d.).

Graduation from high school is the current determining factor that the student is now College and Career Ready (CCR) (Castro, 2013; Conley, 2008; Conley, 2012; Gold & Rodriguez, 2018). Transitioning from high school to higher education, directly to a place of non-skilled, semi-skilled, or skilled employment, is too often influenced by incorrect assumptions, antiquated ideology, or guesswork by students, parents, and guidance counselors (Gamboa et al., 2013; Lent et al., 2016; Santos et al., 2014). The current attrition rates for college students suggests that there is room to improve on the decisions that high school students are making about their futures. According to the latest data from the National Center for Education Statistics, only 49% of the 2009 cohort graduated in four years (“Graduation rate,” 2016). A report from NCES listed graduation rates of all higher education institutions within 150% (6 years) of entry at 60% of all students who entered the 2011 freshman cohort (Undergraduate, 2019). This low graduation rate after 6 years has been consistent in the successive classes of incoming college freshmen (Undergraduate, 2019). This researcher considers this an underscore of the lack of preparedness and a greater lack of informed decision-making skills that high school students are working with to make long-term decisions about their futures.

When compared to the high school graduation rates, and the majority of those graduates enrolling in college of some type, lower college graduation rates of 50% or less in some schools, strongly indicates the likelihood of those high school graduates lacking the skills and experiences to make thoughtful and productive decisions

involving their own college, career, and life path discovery (Burgstahler & Bellman, 2009; Conley, 2002; Cook-Deegan, 2016; *High School*, 2017; Leal, 2015; Marin, Bragg, & Hackman, 2017; *Rising to the Challenge*, 2014). There seems to be a disconnect between the social expectations of a college degree being necessary and required, for social and financial success and the institutional preparations of young people expected to achieve success as adults (Cook-Deegan, 2016; Cummings et al., 2004; Leal, 2015). The social expectations can lead to uninformed high-stakes decisions including borrowing large sums of money to go to college, choosing degree paths that have little financial reward, or even entering the work force as a minimum wage worker. High-stakes decisions can result in substantial payoffs or burdens as young people advance into adulthood (Cummings et al., 2004). Many high school students do not have the skills, financial awareness, nor the maturity to engage in college level academic and social environments immediately upon graduation (Martinez, Baker, & Young, 2017).

High school education providers and administrators are well positioned to provide a learning environment that introduces and incorporates skill and experience-based content into existing core curriculum (Stansbie & Nash, 2013). This experienced-based content design may include internships/mentorships, job shadowing, trades and skills introductions, career and job fairs, and creating school-community-business relationships that can be used to foster increased career and entrepreneurial maturity in the students before they make choices about their futures (Barton & Coley, 2011; Cook-Deegan, 2016; Dubin, 2014; Gamboa, Paixao, & de Jesus, 2013; Gobble, Onuscheck, Reibel, & Twadell, 2017; Robinson, 2015;

Shoemaker, Thomas, Roberts, & Boltz, 2016). However, public high school education is generally not providing the skills and experiences desired by higher education and the employment sectors to all students (Alper, 2017; Bettinger & Long, 2005; Bull & Gilbert, 2012; Dubin, 2014; Gold, 2018). YouthTruth surveyed 165,000 students in its 2015 College and Career Readiness study. A startling revelation in the data showed that only 45% of the respondents felt positive about the level of preparedness for college and careers after high school (Leal, 2015). Juniors and seniors from 260 schools representing 31 states took the survey, and only 55% stated their schools had helped them understand the process of enrolling in college (Leal, 2015).

In the same survey, only 46% of respondents reported that their schools had helped them understand what careers and college degree programs matched their skills and interests (Leal, 2015). Additional problems in the high school learning environment were revealed as only 32% of students received help from counseling to determine career possibilities, and 23% used counseling to figure out how to pay for college (Leal, 2015). As the research reveals weakness within the system of public education in regard to outcome based objectives (College and Career Readiness) the data can be used to determine how schools can address the problems in the practice of education as it is delivered in the present.

Due to limited resources and historical practices, the traditional classroom learning environment lacks the experiential learning opportunities, internships, mentorships, and community resource interactions that are in great demand by the business and higher education industries (Bettinger & Long, 2005; Carr & Kefalas, 2010; Dubin, 2014; Eide & Olsvik, 2017; Leal, 2015). Denying students access to

these opportunities in secondary education has left many graduates ill-equipped to make thoughtful and productive decisions involving their post-graduate college, career, and life path discoveries (Bettinger & Long, 2005; Carr & Kefalas, 2010; Dubin, 2014; Eide & Olsvik, 2017; Gamboa et al. 2013; Gati, Krausz, & Osipow, 1996; Leal, 2015).

Many studies have been conducted on determining what college and career readiness is for high school students (Castro, 2013; Conley, 2002, 2008, 2012; Dubin, 2014; High School, 2017; Leal, 2015; Marin et al., 2017; Public Opinion, 2014; San Diego, n.d.). Additionally, work by Alper (2017), Gamboa (2013), Gold & Rodriguez (2018), Kaufman (2015), and Shoemaker et al. (2016) have assessed how intern-based learning experiences improve high school student's ability to enroll in higher education. These studies have not been longitudinal, and the lack of subsequent data from follow up studies has not determined the successful graduation and meaningful career acquisition those students may or may not have had.

Critical thinking, communication, social emotional awareness, and a sense of self-directed motivation are skills and dispositions that are considered to be hallmarks of a college and career ready mindset (Freedberg, 2015; Leal, 2015; Sharp, 2017). These skills and dispositions represent a deeper level of learning and understanding of the world beyond high school and are recommended by many education scholars, universities, and business leaders (Freedberg, 2015; Sharp, 2017, Vander Ark & Schneider, 2014). Yet the results of this recognition are not being seen in the capabilities of high school graduates. Less than 40% of students scored at ready for college and career levels according to National Assessment of Educational Progress

testing results (Sharp, 2015). Conley (2008, 2013) agrees that there is a disconnect in the research and the application of needs in high school curriculums (Freedberg, 2015). Schools need to be more closely aligned with what colleges and universities need high school graduates to be capable of doing before students get to college (Conley, 2008; Freedberg, 2015; Sharp, 2017). The poor graduation rates of college freshman and an increasing number of college students being required to take non-credit remedial courses is evidence that more can be done to better prepare students in high school to be college and career ready upon graduation (Leal, 2015). Bridging the gap between high school and the outside world can be a means of helping students gain the skills and dispositions that higher education, business, and industry leaders are asking for (Gamboa, Paixao, & de Jesus, 2013; Leal, 2015).

This researcher found no studies that have examined how high school internship programs can create curriculum and experiences that can improve students' abilities to make informed forward-thinking decisions for their college, career, and life paths. Instead of looking at whether a student enrolls in college after such programs, this study will assess the student's perceptions of how the internship program has or has not influenced the ability to make informed decisions about going to college, or not, that is based on learned information and experiences that the internship program provided them.

Research Question

The primary research question was to what degree will high school students who complete a semester long internship program demonstrate a greater awareness and understanding of their college and career options and opportunities and express a

greater level of confidence about their ability to make informed decisions about college and careers?

Operational Definitions

Attrition- a reduction in numbers usually as a result of resignation, retirement, or death (Merriam-Webster, 2020)

Career Maturity- Defined as the degree to which individuals are prepared to make educational or vocational decisions that are informed and forward thinking (Gold & Rodriguez, 2017)

College and Career Readiness- A student who is ready for college and career can qualify for and succeed in entry-level, credit bearing college courses leading to a baccalaureate or certificate, or career pathway-oriented training programs without the need for remedial or developmental coursework (Conley, 2016).

Disenfranchised- Feelings of an absence of privilege or opportunity (Merriam-Webster, 2020)

Entrepreneurial Maturity (or Mindset)- Is the set of attitudes, skills and behaviors that students need to succeed academically, personally and professionally. These include initiative and self-direction, risk-taking, flexibility and adaptability, creativity and innovation, critical thinking and problem solving. Other definitions include the ability to see opportunities, marshal resources and create value (Gold & Rodriguez, 2018).

Experiential Learning- a process through which students develop knowledge, skills, and values from direct experiences outside a traditional academic setting. It encompasses internships, service learning, undergraduate research, study abroad,

and other creative and professional work experiences. Well-planned, supervised, and assessed experiential learning programs can stimulate academic inquiry by promoting interdisciplinary learning, civic engagement, career development, cultural awareness, leadership, and other professional skills (“What is Experiential,” 2020).

Extended Learning Opportunities- provide multiple ways for students to learn outside of the classroom and achieve credit toward high school graduation (“History of ELO’s,” 2020).

Higher Education- For the purposes of this paper, higher education is considered to be a 2-4 year college experience at any post high school institute of learning.

Life Path Discovery-The researcher defines this as a process that one follows to discover the purpose of self and is the most rewarding path to fulfillment and joy.

Internship- an advanced student or graduate placement in a professional field (such as medicine or teaching) gaining supervised practical experience (as in a hospital or classroom) (Merriam-Webster, 2020)

Mentorship-a mentor is seen as a role model, someone the student wants to emulate professionally, that provides a relationship in which a more experienced or more knowledgeable person helps to guide a less experienced or less knowledgeable person (McLaughlin, 2010).

Skilled Trades- occupations that require a special skill, knowledge or ability which can be obtained at a college, technical school or through specialized training. Skilled trades provide an alternative to jobs that require four years of college education. While skilled trades can be separated into many areas such as

manufacturing, technology, energy, and healthcare, they are generally divided into the following three categories (“Skilled Trades,” 2020).

Traditional Classroom- Learning space in which the teacher provides face-to-face instruction to students and communication between and among teacher and students is face to face (“What is Traditional,” 2020).

Unemployment- The state of being unemployed, the involuntary idleness of workers (Merriam-Webster, 2020).

Underemployment- the condition in which people in a labor force are employed at less than full-time or regular jobs or at jobs inadequate with respect to their training or economic needs (Merriam-Webster, 2020).

Chapter 2

This literature review focuses on two sections with the first demonstrating how defining a high school graduate as college and career ready has evolved into a generic rubric that simply assesses a high school graduates ability to be accepted to a college, as evidence that they are prepared to be successful at the level expected of them once they get to college. The college focused public education system has led millions of young people to consider higher education as their primary, if not only, path to financial and individual success as adults (Gillis, Jones-Moore, Haynes, & Wig, 2016; Malin, Bragg, & Hackman, 2017; Martinez, Baker, & Young, 2016).

Specific constructs explored include how being college and career ready is defined, the consequences of students guessing about their futures, what effects uninformed, and short-sighted decisions can have on individuals and communities, and how this singular focus on higher education has promoted a stigma of skilled trades as viable and rewarding career options as shown in Figure 1.

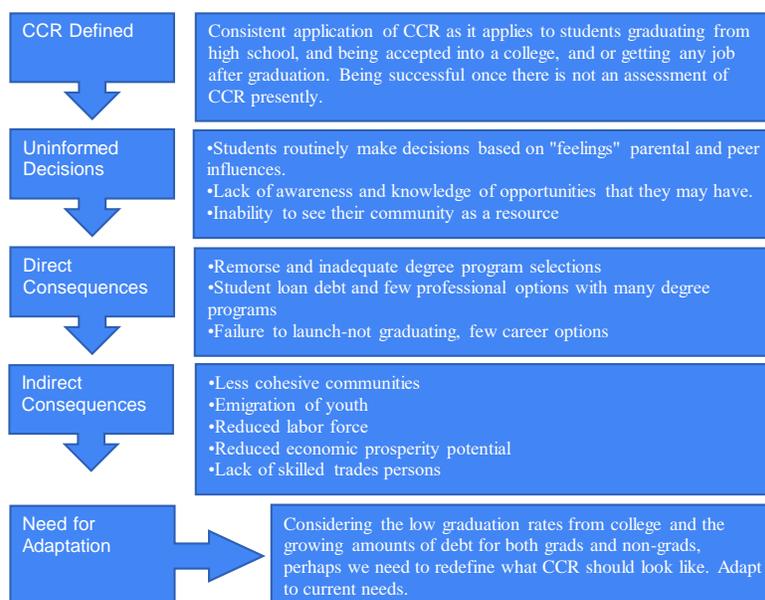


Figure 1. Conceptual Framework of College and Career Readiness Modelling

The second section addresses the use of high school interventions that include internships, experiential learning outside of the classroom, and how these can provide students with the ability to make informed forward-thinking decisions regarding their abilities and interests towards higher education goals or career and skills acquisitions. The assumption in the conceptual framework (Figure 2) of this case study reflects the belief that a traditional education environment that is enhanced with experiential and interactive learning relationships and environments will provide a greater ability for high school students to make more informed and forward thinking decisions about their futures, regardless the direction they decide to take.

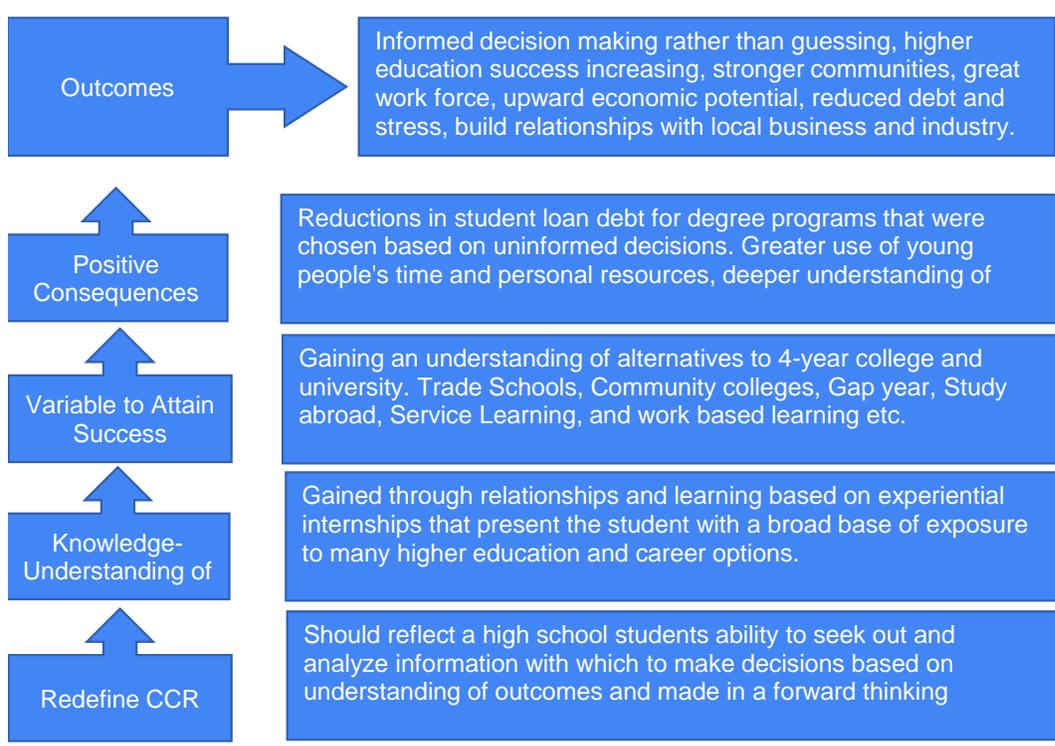


Figure 2. Conceptual Framework of Redefined College and Career Readiness Modelling

The researcher has not found any studies that have looked at whether high school students participating in an internship program, as an intervention, have demonstrated a change in their perceived ability to make informed forward-thinking decisions about their futures. This gap in the research is the primary concept underpinning the case study performed by the researcher.

Understanding of College, Career, and Life Readiness

Determining the understanding of College and Career Readiness (CCR) across the United States can be difficult due to a lack of cohesive standardization of how CCR is defined. In Conley's 2012 report by the College & Career Readiness & Success Center, 37 entities including 36 states, and the District of Columbia, have defined CCLR, or CCR. This report explains that 33 entities use a single definition for both college and career readiness interchangeably. The other four use separate definitions for college readiness and career readiness (Conley, 2012). The state of New Hampshire, one of the four, goes further in expecting post-secondary education as a requirement for high school graduates to be successful in their future lives as adults (Conley, 2012). For the purposes of this case study, Conley's (2016) was selected.

Furthermore, this same report creates a comprehensive picture of what CCR looks like. In its simplest form, a student is college and career ready when they can succeed at entry level academics and/or career performance without remedial learning.

More broadly, Conley (2012) designed a 4-Key model of mastery that includes:

1. Cognitive Strategies- Student's thinking skills, problem-solving, analysis, and evaluation abilities.
2. Content Mastery- Student's knowledge and understanding of broad core content areas.
3. Learning Skills and Techniques- The student owns the learning process, and self-efficacy.

4. Transition Knowledge and Skills- The student understands what is needed to transition to the next stage of their life (p. 3).

Both Conley (2012) and the College & Career Readiness & Success Center (2012) reports demonstrate commonality in the beliefs that many current and future jobs will necessitate post-high school skills and training to be successful. Considering the lack of qualified candidates for technical jobs in the United States, there is a curious absence of career and technical education (CTE) skills represented in the standardized testing that takes place in public education (Malin, Bragg, & Hackman, 2017; Martinez, Baker, & Young, 2016). This lack of career emphasis is noted in the work of Gillis, Jones-Moore, Haynes, and Wig, (2016). These authors suggest strongly that CTE teachers use purpose rather than solely content in the instruction process (Gillis et al., 2016).

Sizer (1991) made similar observations regarding the effectiveness of the current model of teaching and teachers. Sizer's (1991) work is often seen as encouraging less teaching in the classroom, yet the less referenced in the Essential Schools movement refers to fewer courses with greater depth.; less students in the classroom to increase the effectiveness of the teacher in their role as a coach; less bureaucracy to get in the way of a flexible education system that truly addresses the needs and wants of the students while providing educators the tools and time required to enhance the learning environment of their charges (Coalition Principles, n.d.).

Intertwined within this concept is the idea of providing students with real incentives to work to their potential. The modern public-school system is built around the idea that all students will achieve success at the same pace and will graduate with the same number of credits as everyone else they started high school with. Little has

changed since Sizer's early work on what is essential education in the United States.

While Sizer (1991) suggests allowing students to exhibit mastery of their subjects when they are ready to do so, many students "get it" quicker than others. Sizer put forth the question what purpose or benefit do they (students) gain by spending an entire semester or even an entire year in one course; when they could have demonstrated a high level of competence, or mastery, at an earlier time? Students in the essential schools were encouraged to master the fundamentals of learning and content knowledge and can then begin to pursue their own interests and develop particular skills that they possess or wish to possess (Sizer, 1991).

However, even Sizer's Coalition of Essential Schools had the same limitations that are prevalent in traditional high schools across the United States as characterized by the organizations own common principles that do not mention, nor advocate any learning or relationship building beyond the classroom (Coalition Principles, n.d.). The researcher acknowledges the student and teacher learning benefits from using best practices encouraged by the Essential Schools, yet there is more work to be done in determining how much more can be gained by breaching the walls of the classroom and bridging the gap between school and community resources with a purpose-based approach to education.

By using a purpose-based methodology that practices the application of content and skills, students are required to analyze situations and problems of a given project, then create innovative solutions based on their academic skills and knowledge (Gaylor & Nicol, 2016; Gillis et al., 2016; Martinez et al., 2016). Traditional education is often accused of having an over emphasis on memorization and teaching to the test

as referenced in the observation by former Education Secretary Duncan (Walker, 2014), who stated on a blog that “...testing issues were sucking the oxygen out of the room in many schools”. It is widely recognized that current standards of secondary graduation requirements are not producing young adults who are competent to succeed at college, career, or life as they are entering a 21st century global community (Bristol & Snyder, 2015; Conley, 2002; Gillis et al., 2016; Hart, 2015; Malin, Bragg, & Hackman, 2017; Martinez, Baker, & Young, 2016).

Consequences of Guessing About Futures

When surveying high school students in the United States, close to 90% will express a strong desire to go to college or start working on a career; others are undecided and may consider taking a gap year, engaging in missionary work, or joining the military (Leal, 2015). The expressed desire to attend college is far more enthusiastic than those same students’ confidence in their readiness and preparation to be successful college students., as demonstrated by fewer than half of those students reporting feeling confident about their ability to succeed in college (Leal, 2015). College and Career Readiness as criteria for graduation strongly suggests that high school is the training ground for whatever direction students intend to pursue after graduation (Conley, 2008, 2012; Gaylor & Nicol, 2016, Leal, 20015). If this is the case, it would be a reasonable expectation that graduating high school students would have a high degree of confidence in making decisions about attending college, determining what their academic concentration will focus on, or how to seek out and attain jobs that will lead to life fulfillment (Gamboa et al. 2013; Martinez et al., 2016; Santos et al., 2014; Stansbie & Nash, 2013).

In contrast to this expectation, Leal's 2015 study on College and Career Readiness found that only 46% of students agreed that high school helped them determine what career options matched their interests. Leal (2015) found that a similar percentage of students acknowledged that high school helped them determine what major to pick for college, yet, fewer than 25% used any available resources to determine how to pay for that college experience. The researcher of this case study recommends redefining College and Career Readiness to reflect a high school graduates understanding and acknowledgment of their options and opportunities to achieve success both within and without a higher education path; a knowledge and understanding of opportunities that exist in their own communities; and within a framework where the student can demonstrate the ability to make decisions based on a high level of credible information, and the ability to assess potential outcomes and consequences of those decisions.

Public education does not present an environment for genuine decision making and life choices beyond the extra-curricular activities for many students (Conley, 2002; Stansbie & Nash, 2013). Presently, few schools are offering challenging, out of the physical plant opportunities for students to explore the worlds of college and careers. Among these opportunities that students of all ability levels could benefit include programs like Running Start, which allows students to take courses at local community colleges for credit, internships at local businesses, community engagement and mentorship programs that match students with business, trades, higher education, and career-based professionals, and community arts and services organizations (Conley, 2002; 2005; 2014; Gamboa, & Paixao, 2016; Rothman, 2017, Jacobs,

Bender, & McAdam, 2015). While still small in number, the national trend is pointing to a greater desire of students to pursue learning opportunities outside of the classroom (Edmunds et al., 2012; Gaylor & Nicol, 2016; Perna et al., 2011; Radcliffe & Bos, 2013)

High school students regularly report being bored, disengaged, or overly pressured with coursework, and expectations (Santos et al., 2014). There is often an unclear connection with their perceived futures, desires, and interests; and the classroom materials, textbooks, and testing that is lacking a clear purpose in the typical high school (Onen & Kocak, 2012; Santos et al., 2014). Purpose is a matter of substance that is essential to learning, however, traditional GPA and class ranking prestige often undermines the actual learning for the classic high achieving students (Cook-Degan, 2016). According to Cook-Degan (2016) learning is replaced with memorization and a diverse participation in extra-curricular activities to enhance college applications in the hopes of being accepted into the school of their choice. Once arriving at their place of higher learning, the students are woefully unprepared to stand on their own outside of the highly structured high school environment (Cook-Degan, 2016). The consequences of students being unprepared for the level of work demanded by higher education and the making of uninformed decisions and pursuing degree programs that are difficult to monetize as viable careers has led to generations of young people saddled with debt and unfulfilling job expectations (JEC, 2019).

As noted in a report on The Economic State of Millennials in America (JEC, 2019) home ownership rates, median income when adjusted for inflation, employment rates, and net worth are all lower in Millennials than in their parents' generation at the

same age. The one category where millennials are leading, is in student debt accumulation that now exceeds \$1.5 trillion, up from \$280 billion in 2000 (JEC, 2019). The younger generations cannot be expected to have strong attachments to their communities if they cannot attain self-sufficiency and rewarding lives for themselves (JEC, 2019).

As the global community continues to innovate and change at greater speeds, those who are transitioning from high school to the world beyond should be equipped with the tools necessary to navigate that world (Conley, 2002; Dubin, 2014; Kaufman, 2015). To meet the challenge of the rapidly changing learning and career environments, authors Bull and Gilbert (2015) recommend that teachers become learning coaches who are less concerned with delivering content that can be accessed by a smart device, and more empowered to coach students in developing the academic skills and abilities that a 21st century world requires. The introduction to skills and environments can be created with group and individualized interactive learning opportunities.

Innovations in learning interactions could include active career and higher education counseling and educating students about internship and mentorship programs (IMP), near-peer coaches, community-based projects, extended learning opportunities (ELO) and many other forms of interaction or encounter based learning (EBL) (Alper, 2017; Gold & Rodriguez, 2018; Shoemaker et al., 2016; Office, 2015; Jobs, 2016). Often, programs in experiential high school learning environment are labelled as work-based-learning models (WBL) (Morris & Mather, 2007; Nagle &

Bohovich, 2000; Schiding, 2010). This case study focuses on internships; however, other methods will be explored in the literature to signify their contextual similarities.

Economic and Social Health

Students who are unaware of education and career options are often trapped into falsely understanding that an expensive college degree is the only path towards life and career success (Carr & Kefalas, 2010; Flatt, 2013). Making the wrong decision about going to college or not, can have catastrophic economic consequences (Student Loan, 2017). As recently as 2017, the United States Chamber of Commerce reported that more than \$1.5 trillion in outstanding student loans exist and is growing each year (Student Loan, 2017). Forty-four million people in America currently have student loan debts, and the average monthly repayment is just under \$400 (Student Loan, 2017). This is a substantial burden as an average encumbrance, but many debtors are paying much more than that, and nearly 10% of all debt is in default (Student Loan, 2017). Debts that go into default accrue regular penalties and interest making the principal amount greater on a month by month basis (Student Loan, 2017). The average debt does not show the true nature of the financial burden. In fact, more than two million people owe in excess of \$100,000, and over half a million individuals carry in excess of \$200,000 in student loan debt (Student Loan, 2017).

While the cost of higher education continues to grow annually, over the past 30 years it has increased at a rate nearly quadrupling in today's dollars as reported by the National Centers for Education Statistics (TED, 2017). At the same time costs for a college education are increasing rapidly with the number of jobs requiring a degree of any kind is disproportionately low (TED, 2017). The Bureau of Labor Statistics reports

that only 37% of all employment in the United States required a college degree in 2016 (TED, 2017). Seventy percent of high school graduates are enrolling in college for a job market that only provides opportunities for approximately one third of them to become employed in a job that requires a college degree.

The low incomes earned by millions of young people, when combined with high levels of debt repayment, lead to lower standards of living, reduced emotional and social health of individuals, and the overall downward trends in the given communities these disenfranchised students reside (Rice, 2013). The disenfranchised population reports higher rates of mental health problems, substance abuse, addiction, and lower rates of confidence in their futures compared to other generations (Adams, Myers, & Beidas, 2016; Flatt, 2013). These afflictions may necessarily require the attention of professionals and community resources, thereby draining even more assets from the surrounding communities (Baum & Payea, 2004; Perna, 2006). The disenfranchisement being expressed and experienced by a growing population of recent college graduates and early career professionals may be reduced with the ability to make more informed decisions prior to graduating from high school (Gamboa et al., 2013; Mullin, 2012; Perna et al., 2011).

The process and outcomes of risky decision making by adolescents is predicated on the perception or risk-reward prediction errors. Hartley and Somerville (2016) define “risky” decisions as those that are made with inferior understandings of likely outcomes and those with probabilities that teens are unable to reasonably estimate. Risky decision making is often noted as including drug use, tobacco and alcohol use and poor driving habits like texting, yet it also includes decisions about

where to go for college and how much it will cost (Hartley & Sommerville, 2016). The invincibility complex that many teenagers have, provide wider margins of acceptable error and risk due to a lack of informed decision-making knowledge (Hartley & Somerville, 2016). Observations by Hartley and Sommerville, (2016) strongly insist that teenagers, when faced with uncertainty, or an overwhelming amount of information that clouds their judgement, err on the side of doing what everyone else is doing. Rather than assessing the risk potential of their decisions, or even applying a basic cost-benefit analysis, in most cases these high school students end up going to college simply because all their peers are going to college (Hartley & Sommerville, 2016).

The Stigma of Trades and Skilled Labor

High school students' undeveloped career maturity indexes do not seem to allow for the informed investigation and pursuit of non-college job and skills opportunities (Gamboa et al., 2013; Gaylor & Nicol, 2016; Martinez et al., 2017; Mullin, 2012; Onen & Kocak, 2012; Perna et al., 2011; Santos et al., 2014; Stansbie & Nash, 2013). A culturally accepted path showing college as the only clear means to a successful and financially sound future has led to the negative stereotyping and stigma of all blue-collar trades (Burgstahler & Bellman, 2009; Carr & Kefalas, 2010). Much of this stigma begins with parents recollections about what vocational education looked like when they were in school and as parents, they want a more sophisticated option for their kids (Carr & Kefalas, 2010; Muhar, 2011; Torlina, 2011; Jobs, 2016). The social disruption of the trades industry is recognized in the personality and openness of students when considering career indecision factors (Burns, Morris,

Rousseau, & Taylor, 2013; Carr & Kefalas, 2010). Burns et al. (2013) found that students had a significant lack of openness, expressed as an unwillingness to consider, when attempting to determine a career path that included blue collar trades jobs. More so, students demonstrated uncertainty in deciding on an educational major, and minimal awareness of vocational outcomes (Burns et al., 2013).

Skilled blue-collar jobs including manufacturing, construction, automotive etc., comprise a large portion of the 30 million jobs that do not require a college degree according to Georgetown University's *Good Job Project* (Jobs, 2016). Skilled workforce jobs pay on average \$55,000 per year, and workers are in high demand and low supply as represented by the five-year 68% increase in job openings of infrastructure related fields, and a substantially lower increase in the number of people training to fill the open positions (Jobs, 2016). Skills-based employment opportunities traditionally have low barriers to entry and increased opportunities for upward mobility and earnings continuity over entry level careers requiring college degrees (Jobs, 2016). This upward mobility in skill related fields are typically without a requirement or desire of college degrees (Jobs, 2016).

Toppin (2018) states that skilled trades labor shortages as an industry wide crisis with a workforce at only three-quarters of its pre-recession numbers of 2007. According to the National Association of Manufacturers, by 2020, 10 million skilled workers will be needed to fill the gap being left by retiring workers and manufacturing growth (Toppin, 2018). As recently as 2016 the National Association of Homebuilders (NAHB) stated that 56 percent of builders reported shortages of skilled workers compared to 21 percent in 2012 (Beyer, 2017; Toppin, 2018). The substantial demand

for skilled tradespersons contrast with high unemployment rates of many college degree holders.

A common misconception that encourages students to discredit trades related work is that higher education always results in higher incomes (Toppin, 2018). Skilled trades may pay less starting income on average than positions requiring a four-year degree. Yet one should consider the income gained after a one- or two-year certification program while other students are spending an additional two to four years in pursuit of a degree while earning no income (Hamm, 2016). An example would show an electrician earning a starting salary of \$35,000 who works for two years when a peer would spend those years still in college (Hamm, 2016). The electrician, working for the two years that a peer would be paying for a college education, has earned \$70,000 and gained two years of professional experience. This can be taken as an advantage in earnings, and experience over the peer who has spent the same amount of time in college earning nothing (Hamm, 2016). The same college graduate starting with \$50,000 in annual salary would take at least five years of full-time employment to catch up with their electrician peer, while paying off student loans at the same time (Hamm, 2016). This gap is even wider when looking at a recent report from the Associated General Contractors of America (AGCA). According to the AGCA, seventy-five percent of all construction companies across the country are struggling to find workers qualified to perform skilled services (Gross & Marcus, 2018). One-third of all new jobs through 2022 will be within the construction, health and personal care industries and there are expected to be 68% more infrastructure

(highway/bridge, water/sewer, power transmission, communications etc.) jobs than people training to fill them (Gross & Marcus, 2018).

As shown in the Table 1, many college degree majors suffer exceedingly high unemployment rates as reported by the U.S. Census data (Toppin, 2018). Considering that the national unemployment rate is 3.5% as of December 2019, it may be reasonable to expect that college degree holders would be acquiring skills and knowledge that is in demand (The Employment, 2019). Unfortunately, as demonstrated in the referenced studies, many popular college degree options have few employment options (Gross & Marcus, 2018; Hamm, 2016; Jobs, 2016; The Employment, 2019; Toppin, 2018).

Table 1
College Majors with the Highest Unemployment Rates.

No	Program-Major	Unemployment Rate
1	Composition and rhetoric	17.54%
2	Environmental science	11.79%
3	Anthropology and archaeology	11.76%
4	Drama & theater arts	11.42%
5	Film, video, & photographic arts	11.24%
6	Mass media	10.92%
7	Fine arts	10.90%
8	Ethnic & civilization studies	10.84%
9	Intercultural & International studies	9.93%
10	Communication technologies	9.40%
11	Biology	8.76%

Essential Constructs for Study

This case study specifically looked at a single internship program that high school students participated in. However, other essential learning environments were explored within the context of a thorough literature review of experiential learning opportunities. These include many aspects of experience-based learning through the use of mentors, adolescent learning, strengthening community bonds, and the challenges and needs of the business and higher education industries.

Experience Based Learning Programs

Works published by Alper (2017), Conley (2002, 2008, 2017, 2018), and Gamboa (2013, 2017) demonstrate that intern programs have been shown to expose students to a much greater connection to experiences that bridge the gap between secondary education and students appreciation and understanding about how to move beyond the high school classroom. Experiences that allow for exploration of careers, skills, and higher education may result in a greater ability to make informed and forward-thinking decisions by graduating high school students. Alper (2017) sums the experience of mentorships up in the first line of the book *Teach To Work*, presenting the argument that students' lives are changed by mentoring and internship experiences. Conley (2018) also speaks to the need for a change in college ready assessment, by pointing out high schools regularly emphasize grade point averages that “encourages...good grades” (p. 212) yet students often are not “...developing the skills they will need in college” (p. 212).

The transition from secondary education to higher education, or the workplace, is too often influenced by incorrect assumptions or guesswork (Gamboa, 2013; Onen

& Kocak, 2012). Gamboa (2013) so strongly advocates for these programs that the author considers the internship model of career exploration to be the most realistic experience for students. The need for greater emphasis and exploration of higher education, job skills, and career experiences is reinforced by the current attrition rates for college students (Symonds et al., 2011). Early exposure to diverse career and business options while in high school, through internships, has been shown to provide greater depth of contextual information that high school students can use to be better prepared for future career and education paths (Eide & Olsvik, 2017; Gamboa et al., 2013; Kaufman, 2015; Shoemaker et al., 2015)

The Harvard study (Symonds et al., 2011) is supported by the latest data from the National Center for Education Statistics, that only 49% of the 2009 cohort graduated in four years (“Graduation rate,” 2016). This low graduation rate indicates the likelihood of secondary education graduates lacking the skills and experiences to make thoughtful and productive decisions involving college, career, and life path discovery (Burgstahler & Bellman, 2009; Conley, 2002; Cook-Deegan, 2016; High School, 2017; Leal, 2015; Marin, Bragg, & Hackman, 2017; *Rising to the Challenge*, 2014).

Secondary education providers have the potential to provide a skill and experience-based core curriculum, including internships, to better prepare students to make thoughtful and productive decisions involving post-grad college, career, and life path discovery (Barton & Coley, 2011; Cook-Deegan, 2016; Dubin, 2014; Gamboa, Paixao, & de Jesus, 2013; Gobble, Onuscheck, Reibel, & Twadell, 2017; Robinson, 2015; Shoemaker, Thomas, Roberts, & Boltz, 2016). However, public secondary

education is generally not providing the skills and experiences desired by higher education and the employment sectors (Rowan-Kenyon, Perna, & Swan, 2011; Symonds et al. 2011). This lack of comprehensive and experiential learning opportunities in secondary education leaves many graduates ill equipped to make thoughtful and productive decisions involving college, career, and life path discovery (Bettinger & Long, 2005; Carr & Kefalas, 2010; Dubin, 2014; Eide & Olsvik, 2017; Leal, 2015).

Adolescent Learning

Gamboa (2013) defines the experimental process of life discovery as the “exploration of the self and of the environment that ensures adaptability...” (p. 79). Gamboa goes on to discuss the idea that learning experiences are not solely designed to push a student in a specific post high school direction, but to clarify and rethink the student’s previous understandings of what was believed to be an accurate assessment of their life path options. The internship programs studied by Gamboa (2013) revealed in many students an “increase in decisional stress” that suggest an increased knowledge and application of a new awareness forced students to undergo a “re-evaluation of their own skills and interests...” (p. 85). Evidence-based inquiry strongly supports the idea that learning is as much about deciding what not to do, as it is what to do (Gamboa, 2013).

Specific studies by Conley (2008, 2013) were conducted to determine what college and career readiness (CCR) is for high school students. The definition of CCR is inconsistent in the states that have gone so far as to define it. However, there are no current studies that examine how internship programs may be used to directly improve

students' abilities to make informed decisions for their college, career, and life paths (San Diego State University, Fowler College of Business, n.d.; Weiqiao, Cheung, & Cheung, 2014). Nearly all the studies on internships are viewed as a means of measuring improvements in college acceptance or post high school job acquisition. Getting accepted to college does not guarantee graduation, nor does it suggest that degree will have a career monetization potential (Symonds, 2011).

Strength of Community Bonds

As colleges have become more expensive, students are leaving their home states in search of more affordable options. This migration of youth has created a brain-drain, and rapidly aging populations in states that have high costs of living, even higher costs of college tuition, and low wages (Joint, 2019).

As young people in states that have high college tuition, and high costs-of-living leave in favor of states with lower living costs, sending states are being denied their future generations of producers (BLS, 2016; Carr & Kefalas, 2010; Joint, 2019; Muhar, 2011). This brain-drain has a destructive influence on community connections and creates economic stagnation. There is no longer a young and vibrant segment of the population to replace the aging and retiring workforce, thus leading to reductions in community investment, celebration of milestones, and infrastructure cannot be maintained due to a decline in tax revenues (Edmunds et al., 2012; Mullin, 2012; Perna et al., 2011).

Local education has the potential to suffer as revenues from property and business taxes decline, and the lack of young families result in consistently declining enrollments, and fewer and fewer social anchors to the community result in more

youth leaving and fewer coming back (Joint, 2019). For example, the state of New Hampshire, according to the Bureau of Labor Statistics, along with Vermont, and Maine have the oldest populations in the country (New Hampshire, 2018). Local Non-profit StayWorkPlay (2017) recently published a survey that reported 30% of those aged 20-40 plan on leaving the state in the next two years. This dissatisfaction is noted in the same survey results of 21% of respondents report themselves as friendless, and 25% as isolated from family (Survey, 2017).

CollegeBoard (2018) reports that 59% of New Hampshire's high school graduates left the state to attend college in 2017. While the same report observes that New Hampshire has the highest in-state tuition in the nation; and the per capita spending was only \$92 compared to the national average of \$244 (CollegeBoard, 2018). Disproportionately high tuition and costs of living can lead to a shortage of youth, in communities and even entire states, needed to replace an aging workforce, and positions of leadership and governance (Carr & Kefalas, 2010). Business and industry would find it remarkably difficult to recruit new talent that would allow for the expansion and continuance of their respective businesses. This stagnation would negatively impact the tax revenues and financial resources of those communities creating a downward spiral of decay (Carr & Kefalas, 2010).

Business and Industry Needs

In the report, *Work in Progress*, Business Roundtable (2017) presents identified skills gaps in today's workforce that are threatening our economy and future standard of living. This report surveyed Chief Executive Officers of 68 American corporations on the skilled workers and talent availability in the workforce. More than 75% of

CEOs responding to the survey report soft skills including basic math, teamwork, reading and writing, and communication skills are important for today's job opportunities (Work, 2017) with half of these companies also report difficulty hiring applicants with competence in these same skills. The report summarizes the respondents concerns and recommends a national effort to create a cooperative business, industry, government, and education system effort, to create a learning environment that produces talented and skills ready talent (Work, 2017).

The Business Roundtable (2017) report suggests that private sector sponsored internships and apprenticeships be provided as collaborative learning opportunities that can be created quick and with individualized attention (Work, 2017). This community-based approach to collaborative learning between the silos of education, business, industry, and the local community organizations can produce stronger relationships and economic success for a broad range of stakeholders (Fatima & Paulsen, 2004; McMahon, 2012; Mullin, 2012; Perna, 2008; Perna et al., 2011)

In response to these shortages, the report (Work, 2017) identifies areas of potential causation. Namely, regional labor needs, and job skill requirements and training are poorly defined and accessible for those just entering the workforce, or secondary education (Work, 2017). Furthermore, many degrees and certificate programs are cost-prohibitive, or have an unclear path to viable occupations (Work, 2017). The data within this report (2017) acknowledges the need for cooperative educational approaches as partnerships with business, or private sector entities, to support the traditional high school experience. The largest consumer of public education is the business community and promoting a curriculum that produces highly

skilled and capable candidates benefits all members of a given society (U.S. Chamber of Commerce, 2012).

To assist the needs of business and industry, Jacobs (2010) contends that the job of educators is to acknowledge that the world is rapidly changing, and teachers must meet the needs of learners and the world that they are entering. Identifying and connecting the needs and changing world conditions to students is presented with many challenges (Jacobs, 2010). Apart from the status quo of traditional education, another substantial challenge may be uniting faculty, staff, and students behind any initiative involving great changes in educational experiences (Jacobs, 2010, Symonds et al., 2011).

High school is a large chunk of time that can define a student's future education, career, and life goals (Badgett, 2016; Conley, 2012; Kaufman, 2015). Kaufman (2015) continues to reinforce the idea that the needs of society should, and will, eventually push education to redefine its purpose. With this redefined purpose, changes can be created that will help meet the specific and individual needs of students to provide opportunities and experiences to prepare them for the next phase of their life paths. Kaufman (2015) does acknowledge that much research must be conducted to determine the best collaborative processes to be used in this cooperative learning theory. Badgett (2016) found that community partners cited relationships, cooperation, and communication as keys to having a successful collaborative learning environment. Studies consistently show that the focus should be on the growth potential for the participating students and that their growth contributes to the overall

health and prosperity of the community (Badgett, 2016; Conley, 2012; Kaufman, 2015).

Higher education challenges.

Industry and higher education leaders acknowledge that traditional education models may not meet the expectations and rigors of a 21st century workplace (Adams, Kutty, & Zabidi, 2017; Amin, Mensah, & Moschetto, 2016; Williams, Moser, Youngblood, & Singer, 2015). The youth of today who are entering the work and higher education environments are expected to have the abilities to navigate sensitive cultural diversity and demonstrate and apply communication and problem-solving skills (Williams et al., 2015). There are concerns that the inability of secondary and higher education systems to improve and increase a graduate's career readiness may result in those systems reduced viability to the society that it belongs (Williams et al., 2015).

Gold (2018), author of a recent study *Measuring the Entrepreneurial Mindset in Youth* has validated the conceptual understandings of IMP's as another means of providing more awareness of options to students. Gold (2018) found that students who participate in entrepreneurial internships show much greater levels of self-efficacy, self-employment, and business path opportunities. Additionally, some students re-evaluated what they thought they knew about entrepreneurialism and decided that it was a very different reality. This would seem to underscore that a student learning what they do not want to pursue is a valuable experiential opportunity to provide them. Thus, as the career decision making ability of the students is enhanced with the addition of career opportunity experiences, students will obtain a greater

understanding and proficiency with tools and skills that employers desire (Gold, 2018).

Chapter 3

Methodology

The purpose of this study was to examine the differences in high school students' awareness and understanding of their options and opportunities for post-high school life paths after participating in an internship-based program. The overarching research question was: Will high school students who complete a semester long internship program demonstrate a greater awareness and understanding of their college and career options and opportunities; and express a greater level of confidence about their ability to make informed decisions about college and careers? Measuring a change in students' self-perceived understanding and awareness of informational content to make informed decisions is essential to the determination of an internship programs ability to provide greater knowledge and understandings of options and opportunities that a student has access to post graduation.

A case study was chosen as an appropriate way to conduct an investigational survey of high school students in a mixed traditional and non-traditional academic setting. Considering the impossibility of controlling or accounting for all the likely variables in a public high school environment, this case study allowed for the collection of pre and post intervention data to examine the possible impact of students' participation in a one semester internship program provided through their high school.

The Internship Program

This internship program is described in the course syllabus as: A course to prepare students for and then place them in internships in local businesses and organizations. Focus is on writing resumes, interviewing, professional communication,

self-branding and giving and getting feedback. Internship sites will be developed early on and students who successfully complete work related to the above topics will be cleared to start their placement. The goal is to log 40 hours of internship per semester (Internships, 2019).

The participants would be evaluated with a set of rubrics based on the school's Transferable Skills (TS) and Workplace Readiness Skills listed in the schools student handbook. These rubrics apply to all courses offered at the internship programs sponsoring school. The skills listed as a priority of the program include:

TS #1 Clear and Effective Communication

- Integrate information gathered from active speaking and listening.
- Adjust communication based on the audience, context, and purpose.

TS #3 Self-Direction

- Demonstrate initiative and responsibility for learning.
- Collaborate as needed to advance learning.
- Persevere in challenging situations.

TS #5 Informed and Integrative Thinking

- Apply knowledge from various disciplines and contexts to real life situations.

Workplace Readiness Skills

- Positive Work Ethic: Timeliness; Willingness to take direction; motivated to accomplish tasks
- Self-Representation: Dresses appropriately; uses language and manners suitable for workplace

(Internships, 2019)

The student internship participants were assessed in two areas including the completion of key assignments (80% of course grade) and Learning Practices including self, teacher, and internship mentor reflections and observations (20% of course grade). To participate, the students first applied to the program through the schools Career Development Center (CDC) and interviews were scheduled with the program coordinator to assure the program would be a good fit with the students' needs and schedule. Once admitted into the program the students either found their

own internship mentor or were matched with a mentor in the community that already had a relationship with the CDC. Students were required to interview the potential mentors and develop an anthropology of the mentor, their occupation, and the business that they worked. Prior to the internship placement beginning, students were required to complete classroom activities involving workplace expectations and professional collegiality, and both mentor and student were required to sign contracts that defined the expectations of both roles of the internship placement (Internship, 2019).

The recruitment strategy to introduce students to this program was presented as a course offering in the schools program of studies and included in a information packet that included new course offerings available for the school year 2019-2020 that was sent to students prior to course sign ups the previous year. As this program was a pilot for the CDC, there is a desire to expand the program based on the feedback this researcher provides the program coordinator as the conclusion of the dissertation defense and acceptance to the university (Internship, 2019). The number of students (20) that participated in the internship program provided an ideal sample group to invite to participate in this case study.

Participants

A convenience sample of case study participants were students representing a single New England regional high school. All the potential participants were required to be in their junior or senior level of high school and were voluntarily participating in a semester long school supported internship program as a matter of exclusionary guidelines. The reported genders of the participants of the internship program included both females and males. Socioeconomic status (SES) data was not collected for this

study due to the limited size of the case study group. However, the district and high school demographics are representative of a typical semi-rural New England mid-size city/town.

The demographic information selected to represent this region is presented in Table 2. Each student enrolled in the program was given the opportunity to take part in the case study by self-selecting to complete the Career Decision Survey (CDS) given to them by the school's Program Coordinator.

Table 2
School District Demographic Information 2017

Characteristic	Data
Population	18,000
Ethnicity-White	83%
Ethnicity-non-white minority group	17%
Single Parent homes	36%
In labor force-(parents)	92%
Bachelors' degree or higher parents)	63%

Participants Demographics

The internship program this case study was conducted on included twenty students who self-selected to participate. Of the twenty students, half (10) self-reported their genders as male (M) and half (10) reported their gender as female (F). This researcher does not know if any students were rejected from participation based on limited availability of reserved program slots. Of the 20 students enrolled in the program, 15 completed the pre and post program surveys.

Career Decision Scale

The design of this case study used students' perceptions of their own awareness of college and career options, and decision-making abilities that were tested using surveys administered by the internship program coordinator at the study

participants school. The Career Decision Scale (CDS) survey was used to assess students' perspectives. Osipow and Barak (1976) developed the Career Decision Scale survey to help identify students' perceptions of barriers that interfere with abilities and confidence to make individualized college and career decisions. The scale consists of 19 items, including 18 items with responses (Likert 1-4 scale) ranging from "Not at all like me" to "Exactly like me."

The 19th item was an open-ended response that allowed students to individually explain what may describe them better than the other 18 items allowed. An additional set of 5 survey items were created by the researcher to specifically assess the students self-perceived ability and confidence to make decisions about their future. Table 3 presents the items from the Career Decision Scale Survey that Osipow et al. (1976) designed.

Table 3

*Pre-Program Survey*Career Decision Scale Items

1. I have decided on a career and feel comfortable with it. I also know how to go about implementing my choice.
2. I have decided on a major and feel comfortable with it. I also know how to go about implementing my choice.
3. If I had the skills or the opportunity, I know I would be a _____ but this choice is really not possible for me. I haven't given much consideration to any other alternatives. however.
4. Several careers have equal appeal to me. I'm having a difficult time deciding among them.
5. I know I will have to go to work eventually. but none of the careers I know about appeal to me.
6. I'd like to be a _____, but I'd be going against the wishes of someone who is important to me if I did so. Because of this, it's difficult for me to make a career decision right now. I hope I can find a way to please them and myself.
7. Until now, I haven't given much thought to choosing a career. I feel lost when I think about it because I haven't had many experiences in making decisions on my own and I don't have enough information to make a career decision right now.
8. I feel discouraged because everything about choosing a career seems so "iffy" and uncertain; I feel discouraged. so much so that. I'd like to put off making a decision for the time being.
9. I thought I knew what I wanted for a career, but recently I found out that it wouldn't be possible for me to pursue it. Now I've got to start looking for other possible careers.
10. I want to be absolutely certain that my career choice is the "right" one. but none of the careers I know about seem ideal for me.
11. Having to make a career decision bothers me I'd like to make a decision quickly and get it over with I wish I could take a test that would tell me what kind of career I should pursue.
12. I know what I'd like to major in, but I don't know what careers it can lead to that would satisfy me.
13. I can't make a career choice right now because I don't know what my abilities are.
14. I don't know what my interests are. A few things I'm curious about, but I'm not certain that they are related in any way to my career possibilities.
15. So many things interest me, and I know I have the ability to do well regardless of what career I choose. It's hard for me to find just one thing that I would want as a career.
16. I have decided on a career, but I'm not certain how to go about implementing my choice. What do I need to do to become a _____ anyway?
17. I need more information about what different occupations are like before I can make a career decision.
18. I think I know what to major in, but feel I need some additional information to decide on it as a choice for myself.
19. None of the above items describe me. The following would describe me better: (write your response below). OPTIONAL

Additional Survey Items

The additional set of 5 survey items were created with the intent of providing the researcher insight into the students perceptions of their understanding of options they may have, how well informed and prepared they are to make decisions about their futures, and how they feel the high school has prepared them for their futures. This data was useful when comparing the students reported perceptions of the effectiveness of the internship programs ability to provide them with greater awareness and abilities to make informed decisions. Table 4 represents the 5 additional pre-program survey items.

Table 4

Pre-Program

Addendum Pre-Program Survey Items

-
20. I feel that I have been supported and guided in my education so that I can make informed decisions related to my future college choices.
 21. I believe that I am well informed enough to make good decisions about college.
 22. I believe that I am well informed enough to make good decisions about getting a good job or career skills.
 23. I have been given enough opportunities in High School to prepare for whatever I will do after graduation.
 24. I am aware of many opportunities in my community to acquire job skills and employment that will fulfill my needs and wants.
-

Post-Program Survey

This survey included all of the items in the pre-program CDS survey plus an additional set of 11 items created by the researcher. These items are specific to the students perceptions of themselves and the internship program. These items were answered with a yes or no that indicate if the student's ideas about college, career and life after high school may have been influenced by the internship experience. Table 5 lists the items included in the post-program survey.

Table 5
 Post-Program Specific
 Addendum Survey Items

1. Prior to this internship program I was planning on attending college right after high school.
 2. Prior to this internship program, I had a clear picture of what my future after high school looked like.
 3. Prior to this internship program I was planning on getting a job and skipping college for at least one year.
 4. As a result of this internship program I have a greater awareness of my higher education opportunities.
 5. As a result of this internship program I have a greater understanding of my career or job skill opportunities.
 6. As a result of this internship program I have a greater ability to make informed decisions about my career options.
 7. As a result of this internship program I have a greater ability to make informed decisions about higher education options.
 8. As a result of this internship program I have changed my mind about attending college right after high school.
 9. As a result of this internship program I have changed my mind about getting a job right after high school.
 10. As a result of this internship program I have changed my mind about what major to focus on in college.
 11. I completed an internship placement this semester
-

Research Setting and Sample

The site where data collection was conducted in a large regional New England high school setting. This school was chosen for its specific use of an internship program that will last a full school term of one semester in duration. Secondary data was collected and used in the case study, thus no IRB approval was sought or obtained for this study. In researching local high schools, this program was recommended to the researcher by a contact at the school where the internship program would take place. This school has a long history of Extended Learning Opportunities (ELO) that allow and encourage students of all backgrounds to pursue learning interests beyond what it offered within the program of studies. It was discovered that the school's former

business education studies coordinator would be initiating an internship program beginning in the 2019-2020 school year. This would be the inaugural program for the school.

The new Career Development Center Coordinator would be responsible for creating a semester long program that featured two primary components. The first component would focus on skills associated with functioning as a member of a business; and the second would be the field experiences of the internship placements where the students would be working.

The Case Study

The researcher contacted the coordinator and expressed an interest in the program, and the intentions for the research study that was in the process of being designed. As this would be a never before offered program within the school, the coordinator saw this research proposal as a valuable opportunity for a collaborative evaluation program/case study on the effectiveness of the students' experiences, and where students showed success/weakness in implementing a non-traditional learning model for students. The researcher agreed to provide the school with the survey instruments; the program coordinator would work with students to deliver and collect the survey data and send it back by the end of the survey periods.

Survey Delivery

The researcher created both of the surveys using Google Forms and modified the settings to not collect e-mails or any identifying information from the survey takers. The pre-program survey was sent to the coordinator prior to the start of the school year. The program coordinator delivered the survey to the students during the first week of classes

and the data was delivered to the researcher at the end of September. The post-survey was delivered to the students by the coordinator just before the December break and collected post-program data was sent to the researcher in early January. Students were given time in class to fill out the surveys and were permitted to take the surveys outside of class. Table 6 shows the timeline and sequence of events the researcher took to create and establish the case study relationship, surveys, and data collection.

Table 6
Research Case Study-Timeline and Sequence of Events

Event	Date
Contacted Program Coordinator	March 6, 2019
Established Commitment	March 16, 2019
Created Pre and Post Surveys	August 3, 2019
Sent Surveys to Coordinator	September 12, 2019
Pre-Program Survey Distributed	September 13, 2019
Survey Collected	September 30, 2019
Data sent to Researcher	September 30, 2019
Post Survey Distributed	December 6, 2019
Survey Collected	December 30, 2019
Data sent to Researcher	December 30, 2019

Data Collection

Data was collected from students using the Career Decision Scale survey. The participation in pre-program survey provided a benchmark of students' awareness of career decision awareness, and career confidence in decision making and informed forward-looking perspectives.

Pre-program survey.

The pre-program surveys were distributed at the beginning of the school year and the data was sent to the researcher on September 30. The 30th was the closing date for pre-program surveys to be taken by the students. The researcher closed the survey

on that date so as to restrict the amount of procrastination of the students. and the experiential influences of the program.

Post-program survey

Post-program surveys were sent to students in early December, and the closing date was December 30. These two surveys provided data that was used to determine if there was a significant change in the case study participants confidence and awareness of career options and informed decision-making awareness. Both surveys used a Likert model based on the Career Decision Scale (Gati et al., 1996; Osipow et al., 1976).

The addition of the 11 program specific survey items was intended to address the case study as a program evaluation to benefit the internship program and students at this school. The program coordinator desired feedback and data that could assist their ambitions to expand the program and make it more productive and meaningful to the students.

Data Analysis

The data analysis plan includes a review of all data for completion and inconsistencies; interpretation of the initial results from the pre-program survey; and a repeat of both steps using post-program survey return data. The Mann-Whitney U test was used to compare the values of the two sets of survey data. Nachar (2008) considers the Mann-Whitney U to be of particular value when the study groups involve small samples (five to 20 participants). This case study featured the data collected from 15 participants across two sets of survey data collected pre and post program.

Osipow et al. (1976) theorized that the Career Decision Survey model could also be used as a diagnostic instrument to be used in career counseling and interventions.

This assessment is now used to evaluate areas of potential difficulty including lack of readiness, lack of information, and inconsistent information in the student's CCR preparation.

Test for normality was conducted to ensure appropriate analysis of results. Creswell (2009) provides the rationale for this quantitative design when stating that this procedure allows the researcher to determine the influence of an intervention on participant outcomes. Research of this type provides a method of investigation of the influences a specific introduced variable experience, such as an internship program, has on particular outcomes. This research case study examined if the introduction of an internship program experience for one group of students showed a change of decisional self-efficacy over the course of the internship program.

Nachar (2008) explains that Mann and Whitney (1947) concluded that as long as two independent populations (or one population with two samples) have the same distribution, in this case study the two populations are a single group of students at the beginning and end of the internship program (two samples), the results can be interpreted with the reporting of values between the two populations differing significantly from one another. The question the researcher sought to answer using the Mann-Whitney U test was, does the range of Likert values differ between pre and post internship program surveys? A positive change could be interpreted as students perceive a greater awareness and understanding of the post high school options and opportunities in regard to college and career readiness, and within the specific environment of the internship program, did the students change their minds about their

future options because of the program? This data will be presented in chapter 4 and discussed in chapter 5.

Likert values were assigned a point value ranging from 1 to 4 for each survey item. The non-parametric test is defined by Nachar (2008) and de Winter and Dodoo (2010) as one that does not assume distributions that are normal or continuous. Likert values from each datum of the first group was be compared to the datum of the second group. Instead of the traditional five items, the researcher opted to provide the participants with only four options on the Likert scale. The intention behind this action was to eliminate the neutral selection of “3” that may have been a default position for many teenage students. Students may have been tempted to select that central option rather than leaning towards “not at all like me”, “or exactly like me.”

The individual surveys were downloaded at Excel files and the researcher combined the data onto a single spreadsheet to make analyzing the data more manageable. As the data was analyzed common factors, or constructs, were revealed that the researcher used to group the survey items together. Means of the individual items and constructs were calculated and will be presented in chapter 4.

Results

This purpose of this case study was to examine whether the intervention of a high school internship program would provide high school students with a greater awareness of their options and opportunities and provide these students a greater confidence regarding their post high school decision making needs. The Career Decision Scale (CDS) (Osipow, 1984) used Likert values to assess if the participants displayed a significant difference in their pre and post survey responses. The CDS presented 18 survey items that assessed participants confidence and likely decisions about college, career, future jobs, decisiveness, and awareness of their options post high school.

The Likert data on the pre and post intervention surveys reflect the participants self-perceptions in the range from 1= Not at all like me to 4= Exactly like me. The Pre-program survey included 5 supplemental items that allowed participants to respond to variations in their values and understandings of both their education experiences and community awareness. These items followed the identical Likert values of the CDS scale. In the post-program survey 11 items were included that were specific to the participants perceptions of clarity they have regarding their post-high school futures. Program specific survey items were designed to elicit feedback on commitments to pursue higher education and jobs after high school and clarity of their post-graduation futures.

Additional post-program survey items were designed to assess participants perceptions of decision-making confidence “as a result of...” the internship program intervention. The final item in the program specific survey asked if participants

completed the internship placement of the program. All program specific items provided for a yes/no response and three items allowed for a “not applicable” option based on variations of prior survey items. The survey data compared responses to the individual and grouped items in addition to the demographic divisions of reported genders (M/F) and grade point averages (GPA).

Grade point averages by gender.

Academic grade point averages in this case study ranged from 2.5-4.0. The results of the pre-program survey participants (n=15) included responses from 8 males, and 7 females as seen in Table 7. The post-program survey participants (n=15) also featured responses from a blended mix of reported genders. However, the reported gender representation in the post-program survey (n=15) showed a minor variation as demonstrated in Table 8. Post-program data shows that 8 females and 7 males responded to the survey. A difference of one is seen in each category of gender representation. While the Mann-Whitney-U test showed no statistical significance in the GPA ranges, practical significance is seen by the researcher and will be discussed in Chapter 5.

Table 7
Gender- GPA Ranges of Participants Pre-

Gender	GPA	n (%)
Female	3.75-4.0	3 (43)
Female	3.5-3.74	3 (43)
Female	3.0-3.49	1 (14)
Male	3.75-4.0	1 (12.5)
Male	3.5-3.74	1 (12.5)
Male	3.0-3.49	3 (37.5)
Male	2.5-3.49	3 (37.5)

Table 8
Gender-GPA Ranges of Participants Post-

Gender	GPA	n (%)
Female	3.75-4.0	4 (50)
Female	3.5-3.74	2 (25)
Female	3.0-3.49	2 (25)
Male	3.75-4.0	2 (28.5)
Male	3.5-3.74	1 (14.4)
Male	3.0-3.49	3 (42.7)
Male	2.5-3.49	1 (14.4)

Combined grade point averages.

Over the range of the combined participants (n=15) the GPA was generally equally represented over the four category factors within the pre-program survey options as presented in Table 9. Yet, when compared to the post-program survey the data presents a noticeable improvement in reported GPA scores across all ranges as seen in Table 9. As Table 9 shows, students (n=7) reported a GPA of 3.5 or higher in the pre-program survey compared to the students (n=9) reporting a GPA of 3.5 or higher in the post-program survey. It is not known if the intervention played a significant role in grade point average improvement.

Table 9

Combined GPA of study participants

GPA	Pre-n (%)	Post-n (%)
3.75-4.0	3 (20.00)	6 (40.00)
3.5-3.74	4 (26.66)	3 (20.00)
3.0-3.49	4 (26.66)	5 (33.00)
2.5-2.9	4 (26.66)	1 (07.00)
Total	15 (100)	15 (100)

Grade level.

The pre-program survey participants included 3 11th grade students (F=2; M=1) and 12 12th grade students (F=5; M=7). The post-program survey participants included 4 11th grade students (F=2; M=2) and 11 12th grade students (F=6; M=5).

Career Decision Scale Responses

The researcher must consider that twenty students participated in the internship program and fifteen students completed the pre and post surveys. However, it cannot be known if the same students (n=15) completed both pre and post surveys due to participant's anonymity and secondary data collection methods.

The overall responses to the CDS survey combined the pre and post survey data and measures the means of each item (n=18) and the change measured in the two sets of data. The change measured in each item was not statistically significant, yet the researcher can assess a negative measurement of change as an indication of less certainty about a survey item; and a positive measurement of change can indicate more certainty about a survey item. For example, CDS Item #1 corresponds to *"I have decided on a career and feel comfortable with it. I also know how to go about implementing my choice."* When comparing the post-survey responses (Table 11) for item #1 to the pre-program survey responses (Table 10) a measured positive change

of .33 (Table 12) demonstrates more certainty about this item at the conclusion of the internship. The specific interpretations of this data will be presented in Chapter 5.

When applying results to a Mann-Whitney U-test, the researcher has a statistically non-significant finding with a U above the critical value of 64. None of the individual items showed a U below the critical value of 64, yet nearly all items showed a real change when comparing the pre and post intervention data in practical terms. As such, the practical significance of all items will be discussed in Chapter 5.

The pre-program survey included 5 items that were designed to elicit the case study participants to reflect on their individual perceptions about the quality of the education that they have received, and their connections to community. The 5 items are considered to be a single survey factor and will be discussed in the next paragraph.

Table 10
Pre-Program Survey Responses by Option

Item	Not at all like me n (%)	Somewhat like me n (%)	More like me n (%)	Exactly like me n (%)
1	1 (.07)	4 (.27)	6 (.40)	4 (.27)
2	1 (.07)	5 (.33)	6 (.40)	3 (.20)
3	6 (.40)	6 (.40)	2 (.13)	1 (.07)
4	3 (.20)	7 (.47)	3 (.20)	2 (.13)
5	8 (.53)	7 (.47)	0 (0.0)	0 (0.0)
6	10 (.67)	3 (.20)	1 (.07)	0 (0.0)
7	8 (.53)	5 (.33)	2 (.13)	0 (0.0)
8	4 (.27)	9 (.60)	0 (0.0)	2 (.13)
9	9 (.60)	6 (.40)	0 (0.0)	0 (0.0)
10	4 (.27)	6 (.40)	5 (.33)	0 (0.0)
11	4 (.27)	5 (.33)	6 (.40)	0 (0.0)
12	3 (.20)	9 (.60)	2 (.13)	1 (.07)
13	5 (.33)	8 (.53)	1 (.07)	1 (.07)
14	6 (.40)	6 (.40)	3 (.20)	0 (0.0)
15	2 (.13)	8 (.53)	5 (.33)	0 (0.0)
16	3 (.20)	9 (.60)	3 (.20)	0 (0.0)
17	2 (.13)	3 (.20)	9 (.60)	1 (.07)
18	3 (.20)	5 (.33)	6 (.40)	1 (.07)

Table 11
Post-Program Survey Responses by Option

Item	Not at all like me n (%)	Somewhat like me n (%)	More like me n (%)	Exactly like me n (%)
1	2 (.01)	6 (.40)	4 (.27)	3 (.20)
2	4 (.27)	6 (.40)	2 (.01)	3 (.20)
3	3 (.20)	7 (.47)	4 (.27)	1 (.07)
4	3 (.20)	7 (.47)	4 (.27)	1 (.07)
5	7 (.47)	3 (.20)	4 (.27)	1 (.07)
6	10 (.67)	2 (.01)	1 (.07)	2 (.01)
7	7 (.47)	3 (.20)	3 (.20)	2 (.01)
8	3 (.20)	5 (.33)	2 (.01)	5 (.33)
9	8 (.53)	5 (.33)	2 (.01)	0 (.00)
10	3 (.20)	4 (.27)	6 (.40)	2 (.01)
11	4 (.27)	8 (.53)	2 (.01)	1 (.07)
12	4 (.27)	5 (.33)	4 (.27)	2 (.01)
13	4 (.27)	8 (.53)	2 (.01)	1 (.07)
14	3 (.20)	8 (.53)	3 (.20)	1 (.07)
15	3 (.20)	6 (.40)	4 (.27)	2 (.01)
16	7 (.47)	6 (.40)	1 (.07)	1 (.07)
17	4 (.27)	3 (.20)	5 (.33)	3 (.20)
18	5 (.33)	4 (.27)	4 (.27)	2 (.01)

Table 12
Overall Career Decision Scale Responses

Survey Item (n=15)	Pre-survey Means	Post-survey Means	Amount of Change	U-value	P-value
1	2.53	2.87	0.33	90.00	0.33
2	2.26	2.67	0.40	84.00	0.24
3	2.20	1.87	-0.33	86.50	0.29
4	2.20	2.27	0.06	112.50	0.98
5	1.93	1.46	-0.46	87.50	0.31
6	1.67	1.33	-0.33	100.50	0.63
7	2.00	1.60	-0.40	93.50	0.44
8	2.67	2.00	-0.67	112.50	0.98
9	1.60	1.40	-0.20	99.00	0.59
10	2.46	2.06	-0.40	86.00	0.28
11	2.00	2.13	0.13	112.50	0.98
12	2.27	2.07	-0.20	112.50	0.98
13	2.00	1.87	-0.13	101.50	0.66
14	2.13	1.80	-0.33	88.50	0.33
15	2.33	2.20	-0.13	106.0	0.80
16	1.60	2.00	0.40	76.50	0.14
17	2.46	2.60	0.13	105.50	0.79
18	2.20	2.33	0.13	102.50	0.69

Note. $P < .05$ is not statistically significant.

Survey Factor Constructs

When analyzing the data, the researcher identified similar survey factor constructs. A total of 6 constructs, or factors, were identified from the 24 total items in the pre-program survey. One item (#19) was open ended and did not fit with the Likert data of the other items. It was eliminated from the data as no participant chose to respond to it. The remaining 23 items were sorted by the researcher into the 6 different factors, and each item was only used in a single factor construct. Table 13 lists the survey constructs in descending order, the quantity of items (n), and the individual item numbers that correspond to each construct. Each construct was applied by the researcher to assess a measure of confidence that the participants perceived when considering their ability to make informed decisions about their college and career readiness.

Table 13
Survey Factor Constructs and Item Grouping

Constructs	n	Items
Decision Confidence	9	7,8,9,10,11,13,16,17,18
Education and Community	5	19,20,21,22,23
Skills and Interest Confidence	3	3,14,15
Career Choice Confidence	3	1,4,5
College Choice Confidence	2	2, 12
External Influences	1	6

Note: All items #'s were used in one construct only.

Decision confidence.

The items in Table 14 (n=9) reflect the constructs the researcher developed to represent the participants decision making confidence when considering future careers, college choices, awareness of the need for decisional information, and prior

ideas of their post-high school directions. Items resulting in a measurement of change in the positive indicate a move on the Likert scale towards “Exactly like Me” (4); and a negative measurement of change indicates a move in the Likert scale towards “Not at all like me” (1). Based on the Mann-Whitney U, these results are not statistically significant, but practical significance will be discussed in Chapter 5.

Table 14

Program Survey Items-Decision Making

Item #	Gender	Pre-program	Post-program	Change
7	M	1.87	1.28	-0.59
	F	2.14	1.87	-0.27
8	M	2.62	1.71	-0.91
	F	2.71	2.25	-0.46
9	M	1.37	1.71	0.33
	F	1.86	1.12	-0.73
10	M	2.37	1.86	-0.51
	F	2.57	2.25	-0.32
11	M	1.75	1.86	0.11
	F	2.29	2.37	0.08
13	M	2.00	1.43	-0.57
	F	2.00	2.25	0.25
16	M	1.50	1.86	0.36
	F	1.71	2.12	0.41
17	M	2.00	2.00	0.00
	F	3.00	3.12	0.12
18	M	1.62	2.14	0.51
	F	2.67	2.50	0.17

Education and community.

Five survey items were added by the researcher to the CDS as a means of assessing how the participants would express a valuation of their education opportunities and self-awareness of the opportunities available to them in their home communities. Table 15 shows how these items were responded to by the participants (n=15) in both the pre and post surveys. Results were not statistically significant when

applied to the Mann-Whitney U. However, as in other data tables, the measurements of change that appear as a positive indicate that the participants reported a greater appreciation for their education opportunities, and a greater awareness of the opportunities available to them within their communities.

Nine out of the ten items in this factor group showed an increase in the mean and a movement towards “exactly like me” on the Likert scale. As seen in Table 15, only the Male response mean for item #4 showed a slightly negative (-0.03) amount of change. These factors correspond with students feelings about the quality of their educational options and support that they have received, their abilities to make informed decisions, and opportunities that may exist within their own communities.

Table 15
5 Additional Survey Items: Education and Community Awareness and Informed Perspectives Means

Item #	Gender	Pre-program	Post-program	Change
20	M	2.50	3.14	0.64
	F	2.43	2.87	0.44
21	M	2.50	3.14	0.64
	F	2.29	3.00	0.71
22	M	2.50	3.00	0.50
	F	2.86	3.00	0.14
23	M	2.75	2.72	-0.03
	F	2.29	2.62	0.33
24	M	2.50	2.86	0.36
	F	2.57	2.62	0.05
Total Mean		2.51	2.89	0.38

20. I feel that I have been supported and guided in my education so that I can make informed decisions related to my future college choices.
21. I believe that I am well informed enough to make good decisions about college.
22. I believe that I am well informed enough to make good decisions about getting a good job or career skills.
23. I have been given enough opportunities in High School to prepare for whatever I will do after graduation.
24. I am aware of many opportunities in my community to acquire job skills and employment that will fulfill my needs and wants.

Skills and career interest confidence.

The construct of skill and career choice is represented in three survey items. Negative measurements of change indicate that the participants responses moved toward the “Not at all like Me” value of 1 on the Likert scale. The first item (#3) refers to skills, opportunities, and alternatives considered for employment. Female participants result in a significantly greater change in item #3 than males.

Two items (14,15) reflect the participants acknowledgment of their awareness of interests that they have, or a lack of awareness of their interests, and how these interests can translate into education and career opportunities. A negative change in measurement from pre to post survey indicates to the researcher that the participants have reported a greater awareness and understanding of their individual interests and how to apply these to college and career decisions. Males report a significantly greater rate of change in items 14,15 than females.

Table 16

Program Survey Items-Skills and Career Confidence Means by Gender

Item #	Gender	Pre-program	Post-program	Change
3	M	2.12	2.14	0.02
	F	2.28	1.62	-0.65
14	M	2.12	1.57	-0.56
	F	2.14	2.00	-0.14
15	M	2.25	2.00	-0.25
	F	2.43	2.37	-0.05

3. If I had the skills or the opportunity, I know I would be a _____ but this choice is really not possible for me. I haven't given much consideration to any other alternatives. however.
14. I don't know what my interests are. A few things I'm curious about, but I'm not certain that they are related in any way to my career possibilities.
15. So many things interest me, and I know I have the ability to do well regardless of what career I choose. It's hard for me to find just one thing that I would want as a career.

Career confidence.

Being career ready after graduating from high school is a primary concern for this case study. A component in the College and Career Ready (CCR) movement, this researcher wanted to assess the self-perceptions of college decision making confidence and awareness. The resulting data were consistent in being statistically insignificant when subjected to a Mann-Whitney U test. Practical significance will be discussed in Chapter 5. Table 17 presents the quantitative data and measurements of change. Positive change in Item #1 indicates the participants reported a selection of the option that was closer to “Exactly like me.”

Responses for Item #1 that are closer to “Exactly like me” suggest a greater level of confidence in deciding on a career and understanding how to pursue that career. Both male and female participants result in positive post-program change in career confidence. However, female results for item #4 indicate a greater difficulty in career decision post-program than males. Both genders report less confusion about career appeal in item #5. The complimentary component to CCR is presented next as College Confidence.

Table 17
Program Survey Items-Career Confidence Means

Item	Gender	Pre-program	Post-program	Change
1	M	2.75	3.14	0.39
	F	2.28	2.62	0.34
4	M	2.43	2.14	-0.29
	F	2.00	2.37	0.37
5	M	1.87	1.43	-0.44
	F	2.00	1.43	-0.57

1. I have decided on a career and feel comfortable with it. I also know how to go about implementing my choice.
4. Several careers have equal appeal to me. I'm having a difficult time deciding among them.
5. I know I will have to go to work eventually, but none of the careers I know about appeal to me.

College confidence.

Participants perceptions of their individual levels of confidence in choosing a major and an informed understanding of implementing their choices was measured with item #2 as seen in Table 18. Measurements of a negative change from the pre to post surveys indicate a loss in confidence about their ability to choose a college major and implement that choice. Whereas a positive measurement of change indicates that the participants perceive an increase in their confidence to decide on a major and implement that decision. Male participants result in a post-program change (Mdn=-0.40) that indicates less confidence about college decision making; while females result in a post-program change (Mdn=0.12) that indicates a greater level of college decision making. The practical results will be discussed in Chapter 5.

Item #12 (Table 18) reflects the knowledge of college majors the participant wants to pursue, and the level of awareness of careers associated with the college major. A positive measurement of change indicates that participants experienced a reduced level of awareness in careers that apply to their chosen college majors. Male participant results show a significant positive post-program change (76%); while female results show a negative post-program change (17%). These results are not statistically significant when applied to a Mann-Whitney U test, but the practical significance will be discussed in chapter 5.

Table 18
Program Survey Items-College Confidence Means

Item	Gender	Pre-program	Post-program	Change n (%)
2	M	2.26	1.86	-0.40 (18)
	F	2.14	2.25	0.11 (5)
12	M	1.62	2.86	1.23 (76)
	F	3.00	2.50	-0.50 (17)

2. I have decided on a major and feel comfortable with it. I also know how to go about implementing my choice.

12. I know what I'd like to major in, but I don't know what careers it can lead to that would satisfy me.

External influences.

Table 19 presents responses to Item #6 as it pertained to decision making difficulty that may originate from external forces. These external forces could be parents or grandparents, peers, guidance counselors etc. When analyzing the means of both genders in the pre and post intervention data, there is a minimal and statistically insignificant change. Males reported a mean change of .03% and Females a mean change of -0.5%. A survey selection of 1 corresponds to “Not at all like me” on the Likert range.

Table 19
Decision difficulty Due to Perceptions of Disappointing Others, or Going Against the Wishes of Others- Means

Item	Gender	Pre-program	Post-program	Change
6	M	1.37	1.40	0.03
	F	2.00	1.50	-0.50

However, when analyzed at the individual levels of Likert options show that 3 pre-program participants (20%) selected options 3 or 4 that corresponded respectively to a Likert range of “More like me” and “Exactly like me.” The post-program survey shows only 1 (7%) participant selected either option 3 or 4 in Table 20.

Table 20
Decision difficulty Due to Perceptions of Disappointing Others, or Going Against the Wishes of Others

Likert Expression	Not at all like me	Somewhat like me	More like me	Exactly like me
Likert Range Options	#1 Pre-program n (%)	#2 Pre-program n (%)	#3 Pre-program n (%)	#4 Pre-program n (%)
Male	7 (87.5)	0	0	1 (12.5)
Female	3 (43.0)	2 (29.0)	1 (14.0)	1 (14.0)
Totals	10 (67.0)	2 (13.0)	1 (7.0)	2 (13.0)
	#1 Post-program n (%)	#2 Post-program n (%)	#3 Post-program n (%)	#4 Post-program n (%)
Male	6 (85.0)	1 (15.0)	0	0
Female	5 (62.5)	2 (25.0)	1 (12.5)	0
Totals	11 (73.0)	3 (20.0)	1 (7.0)	0

As the survey was confidential and the collection was secondary in nature, there was no way to determine if the pre and post intervention survey participants were the same. Those students who selected a 3 or 4 in the pre-program survey may or may not have taken the post-program survey. Thus, this differential in external factors impacting decision making confidence appears random.

Post Program Retrospective Responses

The researcher wanted to determine how the participants viewed the impact the internship program had on their individual perceptions of four categorical factors that include 1. Post-high school plans commitment; 2. Awareness of higher education options; 3. Awareness of career options; and 4. Decisional changes due to the program. Table 21 presents the consolidated data of all responses to the ten items in the survey as the participants (n=15) could only select a “yes”, “no”, or “n/a” as it pertained to their individual perceptions as a result of the internship program. The post-program survey resulted in the same number of respondents (15) as the pre-program survey, yet

there is a difference in the numbers of reported genders. The pre-program data included 7 females and 8 males; while the post-program survey included 8 females and 7 males. Due to this inconsistency in exact numbers of reported genders in pre and post surveys it is impossible to determine if the respondents are identical in both surveys.

Table 21

Program Specific Survey Responses/ Post-program

Item	No n(%)	Yes n(%)	N/A n(%)
1	4 (.27)	11 (.73)	
2	12 (.80)	3 (.20)	
3	13 (.87)	2 (.013)	
4	3 (.20)	12 (.80)	
5	2 (.13)	13 (.87)	
6	3 (.20)	12 (.80)	
7	1 (.07)	14 (.93)	
8	11 (.73)	0 (0.0)	4 (.27)
9	9 (.60)	1 (.07)	5 (.33)
10	7 (.47)	4 (.27)	4 (.27)
11	4 (.27)	11 (.73)	

1. Prior to this internship program I was planning on attending college right after high school.
2. Prior to this internship program, I had a clear picture of what my future after high school looked like.
3. Prior to this internship program I was planning on getting a job and skipping college for at least one year.
4. As a result of this internship program I have a greater awareness of my higher education opportunities.
5. As a result of this internship program I have a greater understanding of my career or job skill opportunities.
6. As a result of this internship program I have a greater ability to make informed decisions about my career options.
7. As a result of this internship program I have a greater ability to make informed decisions about higher education options.
8. As a result of this internship program I have changed my mind about attending college right after high school.
9. As a result of this internship program I have changed my mind about getting a job right after high school.
10. As a result of this internship program I have changed my mind about what major to focus on in college.

Table 22 presents the responses to items (1, 3) referring to post-high school commitments to pursue higher education or jobs immediately following graduation. Retrospective reflection by the females reported a significantly higher percentage of higher education intentions (87.5%) compared to male students (57%).

Table 22
Retrospective Perceptions from Items 1,3

Item #	Gender	Yes n (%)	No n (%)
1	M	4 (57.0)	3 (43.0)
	F	7 (87.5)	1 (15.0)
3	M	1 (14.2)	6 (85.8)
	F	1 (15.0)	7 (85.0)

Table 23 shows one student (Male) reported a change of mind about either higher education or getting a job and skipping college immediately following graduation. Four students (27%) did not respond to either item. This corresponds to the same number of students who did not complete the internship program. However, it is not possible to determine if these are the same students. The practical significance of this will be discussed in chapter 5.

Table 23
Post-program Reflection Comparable Items 8,9

Item #	Gender	Yes n (%)	No n (%)	No Response
8	M	0 (0.0)	6 (85.8)	1 (14.2)
	F	0 (0.0)	7 (87.5)	1 (12.5)
9	M	1 (14.0)	5 (72.0)	1 (14.0)
	F	0 (0.0)	7 (85.0)	1 (15.0)

Table 24 shows how students responded to the query if they had a clear picture of their futures after high school (Item 2).

Table 24

Post-Program-Clear Picture of Futures After High School

Item #	Gender	Yes n (%)	No n (%)
2. Prior to this internship program, I had a clear picture of what my future after high school would look like.	M	2 (28.5)	5 (71.5)
	F	1 (12.5)	7 (79.5)
Totals		3 (20.0)	12 (80.0)

Eighty percent (n=12) of participants responded with “no.” This is in contrast to responses for Item #1 (Table 21) where 11 participants (73%) responded that they planned on attending college the year after high school graduation. To reiterate these two items (1, 2) represent 80% of participants without a clear picture of their future after high school, but nearly 75% still plan on attending college after graduating from high school. This researcher believes that this can be explained in a variety of ways including the lack of understanding of options and purposes of college and career readiness. This will be further explored in Chapter 5.

As seen in Table 25, survey items (4-7) that began with the phrase “As a result of...” between 80% and 93% of the item totals were “yes.” A “yes” response indicates a greater awareness of, or greater ability to make informed decisions about college or career choices as influenced by the internship program experience. Four participants responded that “As a result of...” (Item 10) that they had changed their minds about what to major in at college. Nearly 27% of the program participants showed a change in college interests as a result of the internship program. While not statistically significant, the practical results will be discussed in chapter 5.

Table 25

Participants Perceptions of Program Specific Survey Items: Clarity of Future After High School

Item #	Gender	Yes n (%)	No n (%)
2. Prior to this internship program, I had a clear picture of what my future after high school would look like.	M	2 (28.5)	5 (71.5)
	F	1 (12.5)	7 (79.5)
	Totals	3 (20.0)	12 (80.0)
4. As a result of this internship program, I have a greater awareness of my higher education (college) opportunities.	M	5 (71.5)	2 (28.5)
	F	7 (87.5)	1 (12.5)
	Totals	12 (80.0)	3 (20.0)
5. As a result of this internship program, I have a greater awareness of my career or job skill opportunities.	M	6 (85.7)	1 (14.3)
	F	7 (87.5)	1 (12.5)
	Totals	13 (86.7)	2 (13.4)
6. As a result of this internship program, I have a greater ability to make informed decisions about my career options.	M	6 (85.7)	1 (14.3)
	F	6 (75.0)	2 (25.0)
	Totals	12 (80.0)	3 (20.0)
7. As a result of this internship program, I have a greater ability to make informed decisions about higher education options.	M	6 (85.7)	1 (14.3)
	F	8 (100.0)	0 (0.0)
	Totals	14 (93.3)	1 (6.7)
10. As a result of this internship program, I have changed my mind about what major to focus on in college.	M	2 (28.5)	5 (71.5)
	F	2 (25.0)	6 (75.0)
	Totals	4 (26.6)	11 (73.4)

Although analyses did not show statistical significance with the Mann-Whitney U tests, there is a strong case to be made of the practical significance in nearly all of the survey items. However, considering the participants originated from a consistent sample group of 20 possible participants from the internship program in both the pre and post surveys, it is reasonable to generalize the practical analysis of the data showing reliable rates of change. The case study was intended to explore the practical significance of the internship program that included both classroom instruction, and field work at an internship placement with a professional mentor. As the data showed substantial changes in the post-program data, when compared to the pre-program data, the case for expanding this type of intervention to more high school students will be discussed in chapter 5.

Discussion

This case study was conducted to assess the non-traditional experiences that a high school internship program had on participating students. Specifically, these students ability to make more informed decisions and express a greater awareness of their higher education and career options. As the stakes of a college education have become costlier, and competitive, more and more high school students perceive that higher education is their only path to a successful adulthood (Castro, 2013; Conley, 2012; Gamboa et al., 2013; Lent et al, 2016; Symonds et al., 2011).

College and Career Readiness (CCR) has been the primary mantra in the American public education system for over a decade (Conley, 2008, 2012; Jacobs, 2012). Conley's (2008, 2012) work to determine what measurements and structural functions were necessary to determine what it meant for a high school student to be perceived as CCR, was applied to the student's capability of demonstrating a level of competence in higher education, the job market, or skills acquisition. Much of these determinations were attained through standardized testing, and high school graduates college acceptance levels. However, when considering that nearly 70% of high school graduates enrolled in college in 2016, but fewer than 50%, year on year average, of those same college freshmen will attain a 4-year degree in six years (Education, 2019).

Traditional education would apply a grade of F to a 50% mark on a test. Can high school graduates be college ready if only 50% are still there two years later? In the 21st century, public high school is still generally providing an education experience little changed since the 1950's (Alper, 2017; Bettinger et al., 2005; Bull & Gilbert, 2012; Dubin, 2014; Gold, 2018). Breaking out of the traditional classroom model and

bringing students education environment into the community, and providing career-oriented experiences through internships with local professionals of many trades, skills, and occupations can better prepare students to make informed decisions about their adult oriented interests (Carr & Kefalas, 2010; Dubin, 2014; Eide & Olsvik, 2017; Leal, 2015). This case study examined 15 participants who self-selected to participate in one of these high school internship programs.

Discussion of Results

When comparing the data from the post-survey to the pre-program survey, measured changes across the 18 items demonstrate that students generally expressed a greater certainty about career and higher education decision making processes and consequences at the conclusion of the internship. However, some students expressed higher levels of anxiety about their futures and the decisions that they will be tasked with making as they approach graduation. This anxiety was attributed to experiences gained from the internship program. As the Gamboa (2013) study suggests, as students gain more information and a greater awareness of their options and opportunities, this broader view of their worldly potential can give rise to higher levels of anxiety, uncertainty, and doubt.

In this case study the item results that demonstrate less uncertainty and doubt is interpreted by the researcher as a success for the program. To express an explanation of greater perceived uncertainty, the program coordinator for the internship program and others (Conley, 2008; Gamboa, 2013; Hartley & Sommerville, 2016) have expressed the ideas that students regularly do not know what they do not know. This can be explained as their foundation of knowledge is restricted to the classroom and

textbooks with little or no access to a practical application of their learning, nor do they have any meaningful interactions with tradespersons or business professionals during their high school careers (Carnavale et al. 2013; Fatima & Paulse, 2014).

This lack of interaction leaves them with a very narrow world view. Thus, they do not know anything beyond the classroom environment as a potential course of action. This makes going to college a natural, if not automatic next course of action for nearly all students, even the substantial numbers who may report not even liking school (Conley, 2008; Cummings et al., 2004; Leal, 2015). What other options do they even have knowledge of?

Trends appeared to the researcher that signify the student's appreciation for their ideas about the future were solidified throughout the course of the internship program. As the survey items reflect the eventuality of going to work, higher education, and certain career appeals, the student interactions with professionals and mentors tells this researcher that the students gained a much greater awareness of appealing opportunities. A reduced level of confusion and anxiety about future life paths can lead to a less risky decision-making process and ultimately a greater level of self-efficacy and life fulfillment (Vignoli, 2015).

Item #7 stands out to the researcher "Until now, I haven't given much thought to choosing a career. I feel lost when I think about it because I haven't had many experiences in making decisions on my own and I don't have enough information to make a career decision right now." An amount of change measuring -0.33 provides a strong case for an improved level of decision-making ability due to an increase of

information and experiences, and lack of confusion about the process and its consequences.

This item by itself could be used as validation to continue and expand the internship program. If 20% of the students participating have an improved ability to make informed decisions from just one semester of internship participation out of 15 reporting students, this school may expect to see an improvement in well over 100 students if all the student body were able to participate. Expanded nationwide, this could have a positive impact for millions of high school students. The data also revealed that feelings of discouragement and uncertainty fell by 30%.

Factored analysis.

Taken in its entirety, this CDS data points to students who are much more prepared to make forward-thinking decisions and are acutely aware of the need for more non-traditional experiences and a broader view of their futures. However, when looking at the gender differentiation between what the males and females reported after sorting by survey factors, there is a much more significant revelation in the practical analysis.

Decision making confidence.

As seen in Table 14, four items (7,8,10,13) show much greater amounts of change in the Decision-Making Confidence factor and reflect negative terms such as confusion, discouragement, uncertainty, and a lack of knowledge about their future perceptions. The Female respondents report reductions in all items except #13. An increase in Item #13 may indicate that the students increase in experiences and understanding of their options led to uncertainty about their prior considerations.

Again this could confirm Gamboa's (2013) study that suggests the more information a student has access to can temporarily cause a lack of clarity about that students abilities and interests.

Three other items in the Decision-Making Confidence factor that deserve discussion include #'s 9,16, and 18. All three show greater amounts of change than is represented in the overall means chart. Item #9 suggests that Males in the post-survey acknowledged more awareness of the impracticality of earlier CCR ideas and are now seeking out more options and information that can be used to make a more qualified decision. Females in this item reported a very large move towards "not at all like me" on the Likert scale. This indicates that the Females taking the post-survey had greater confidence and knowledge about their pre-programs CCR considerations. Both resulting data demonstrate that more experiences and a broader and deeper base of knowledge of their options can be beneficial in high school students making decisions that are going to position them to have greater chances of success regardless of the chosen path (Conley, 2010; Radcliffe & Bos, 2013; Gamboa et al, 2013).

In fact, Radcliffe and Bos (2013) expanded upon Conley's 2010 outline of key dimensions for building college and career readiness in high school students. Among the recommendations that Radcliffe and Bos (2013) present in their strategies paper include the visiting of college campuses, college level writing workshops, academic level tutoring, attending presentations by college students about higher education benefits, speaking with college representatives about admittance and financial aid, and collaborating with college students about college entrance tasks. This researcher found these strategies to be well thought out if college acceptance and entrance is the

primary goal. What about the end goal of engaging in a meaningful career once these students have left college?

These same strategies can be used to help build high school students abilities to navigate the business world, skilled trades, discover what their passions are, where their interests and individual skills can be used to the benefit of self and community. Perhaps with more inclusive experiences and interactions with professionals from as many possible college and career paths, high school graduates will be prepared to make informed and forward-thinking decisions like no other generation before.

Both genders report an increased confidence in career choices, but uncertainty about how to pursue it. The researcher interpreted this as an example of participants gaining information that leads to a healthy level of uncertainty, thus resulting in the desire and understanding that more information is needed before a practical decision can be made. The evidence for this is seen in the final item (#18). Both genders show an increase, Males at nearly 30% and Females a smaller amount of change (17%) but still in the same direction and higher overall (Mdn=2.67) than the Males (Mdn=2.14). The key in this item is in the wording “I need some additional information...” This is a key component to pragmatic decision making for high school students. (Conley, 2010; Gamboa et al., 2013; Gillis et al., 2016; Martinez et al., 2016). As Leal (2015) reported, high school students have a strong desire, or feeling of need, to attend college in large numbers, but fewer than half of those same students felt confident about their decisions. Even fewer of those students used or knew about resources that were available to help with financial aid and college entrance (Leal, 2015). This lack

of knowledge is costly and can set a dangerous precedence for these young people, saddling them with debts that may take decades to pay off (JEC, 2019).

Education and community.

This factor corresponds with students feelings about the quality of their educational options and support that they have received, their abilities to make informed decisions, and opportunities that may exist within their own communities. Strong positive changes in pre and post surveys indicate to this researcher that these participants experienced a significant level of growth in their perceptions of understanding, awareness, and informational context over the course of a single internship program. This in contrast to the general population of high school students that Leal (2015) references where only 46% agreed high school helped them determine what career or higher education options matched their interests. In this case study being presented here, nearly 100% of participating students report an increase in these areas.

Skills, career, and college confidence.

The trends in these factors generally provide support that the internship program allowed for a greater level of exploration and experiential learning that would not have been possible in a traditional classroom. These students report having less uncertainty and confusion about their situations and future opportunities. As students gain experience and varied interactions with non-traditional learning environments, they are expected to gain abilities to approach decisions with a more informed position. This is strongly reflected in a greater level of confidence in choosing a career path and knowing how to implement a plan to make it happen. The researcher suggests

that the students gained enough information to feel more comfortable in waiting to decide about career path and are aware that they need more information before committing to something important (Edmunds et al., 2012; Perna et al., 2011; Radcliffe & Bos, 2013).

This factor group is interesting to the researcher as the gender difference is clear. Male participants are reporting far less confidence in college major choice confidence and greater uncertainty about what careers college majors may provide. In contrast, Females showed a greater level of confidence in their college choices at the conclusion of the internship program. The researcher is uncertain what this may suggest in respect to a differing gender appreciation in these factors, but it could reflect a difference in the internship placements the students participated in, or a difference in the intellectual processing of the participants. Further research should be conducted to address this variance in the data. A qualitative approach to the initial surveys should be used to collect data that could reveal how male and female participants can express their individual perceptions of understanding the survey items, and to provide the participants opportunities to disclose their feelings and motivations that support the responses to the surveys.

Program Specific Items

The primary interest in this case study was to analyze data from a group of participants who took part in a semester long internship program to determine if there was a change in the students perceptions of their preparedness for the future after high school. The survey items that were specific to the program inserted into the post-

program survey were intended to provide a level of validation to the program coordinator in assisting to make modifications for the following school year.

If Conley (2002), Dubin (2014), and Kaufman (2015) are correct that students must be equipped to navigate a rapidly changing global community; and Bull and Gilbert's (2015) recommendation that teachers become "learning coaches," is accurate and realistic, then the introduction of individualized learning opportunities like internship programs can prove to be of immense value (Alper, 2017; Gold, 2018; Shoemaker et al., 2016). When the researcher examined the specific post-program data many things became abundantly clear. The majority of combined responses, in each item, were always heavily weighted towards one end of the response spectrum or the other. No items showed equal nor near equal favoritism split between yes and no in the responses. This indicates to the researcher that the group was mostly cohesive in their perceptions post-program.

Clarity of future after high school.

A majority of participants (80%) reported that prior to this internship they did not have a clear picture of what their futures after high school looked like. Yet, between 80 and 93% of participants reported improvements in their awareness of options, and abilities to make informed decisions about their future college and career paths "As a result of this internship program..." Students who participated in this internship program are leaving, after a single semester, with a greater awareness of "higher education" and "career or job skill opportunities." With 100% of the Females responding Yes to having a greater ability to make higher education decisions.

Across the spectrum of post-program survey items there is a practical significance of an appreciation of greater awareness, understanding, and perceptions of a greater ability to make decisions based on an informed, forward thinking process. If educators and administrators are serious in changing the way education is presented to students in a manner that reflects 21st century needs, then redefining its actual purpose could benefit from an experiential application of learning (Badgett, 2016; Carr & Kefalas, 2010; Kaufman, 2015; Rice, 2013). This could help to reduce risky and potentially costly decisions based on instinct or peer pressure.

Hartley and Somerville (2016) defined these “risky” decisions as those that are made with inferior understandings of likely outcomes, and those that teens are unable to reasonably estimate. Many high school students have an invincibility complex that naturally lends itself to more risky behaviors based on these inferior understandings. When faced with overwhelming situations or decisional conditions, teens tend to err on the side of doing what everyone else is doing, rather than assessing the potential risks and rewards (Hartley & Somerville, 2016). Returning to the idea that students often do not know what they do not know, being made aware of this deficit in knowledge can lead to these students then seeking out information to fill in the gaps.

Risk factors and purpose.

This researcher is enthusiastic about this factor as it indicates a far superior position that the high school participants represent when it comes to being in a position to make an informed decision; and possibly more importantly to recognize when they need more information to decide about the direction their lives may take. Consider the financial and societal benefits to communities that have highly capable

students making decisions to pursue jobs, skills, and degrees that can provide a high level of life satisfaction and a stable standard of living. The present reality is much different. Many of the most popular college majors also suffer some of the highest rates of unemployment (Toppin, 2018). As of December or 2019, the United States Census Bureau reports the unemployment rate as 3.5 % (The Employment, 2019).

Toppin (2018) collected data that presents many popular college majors with very high unemployment rates including Composition (17.54%) and four different arts-based majors with an average unemployment rate of approximately 11%. The researcher cannot help but conclude that many students who pursued degrees in these majors would have chosen differently if they had a greater degree of information to decide with. Better decision-making skills do not guarantee better results, but it would be reasonable to expect better odds at the very least, and a greater sense of purpose to those decisions. As Cook-Deegan (2016) put it, purpose is a matter of substance that is essential to learning.

This item asks if the students have “As a result of...” changed their minds about what major to focus on in college. Four (26%) of the respondents stated that they did indeed change their minds about college majors. The researcher concludes that by experiencing a variety of non-classroom learning opportunities, and the chance to explore areas of post-high school interests, made a profound impact on students perceptions of their purpose as it relates to higher education needs. If this study goes no farther than this, the internship program could have helped prevent four students from making a risky, costly, and uninformed decision about their higher education futures.

Post-Program Assessment

When looking at the post-program survey data, the researcher can conclude that the participants expressed a practical significance of change in perceptions as a result of this internship. After comparing their responses to the research question, it is conclusively evident that the data supports the intent of the question. However, it must be acknowledged that the post-program survey questions were dichotomous in nature.

The researcher wanted to reduce the neutral response potential for the items at the conclusion of the post-program survey. Each question required a yes or no response. Participants had to commit to one or the other. As the Likert scale gave options beyond simple yes or no, the data would have been less distinct. A qualitative approach to the participants could have provided a deeper understanding of how the students felt about the experiences and determine why they felt different levels of confidence and understanding as a result of the internship program.

Q: “Will high school students who complete a semester long internship program demonstrate a greater awareness and understanding of their college and career options and opportunities; and express a greater level of confidence about their ability to make informed decisions about their college and careers?”

The responses for each of the additional post-program survey items present a generous increase in measuring the main factors of the research question: awareness of higher education and career options and opportunities (items # 1,3,4,5) a greater level of confidence in making informed decisions about college and career (Items # 6,7,8,9,10). Item #2 assessed their levels of clarity about their post-high school futures. The responses painted a bleak outlook as just 3 (20%) of 15 participants said

“Yes” they had a clear picture. After the program had concluded, the difference in reported confidence and awareness suggests that nearly all would have a clearer picture of their futures and the decisions they will be tasked to make.

The researcher can conclude that these participants have a great appreciation for the need of an informed position when making decisions about higher education and career choices. This level of appreciation could be greater than the average student at the participating school but cannot be known at this time, as there was not a control group used in this survey assessment.

Limitations to the Study

An obvious limiting factor in this case study would be the typically small size of the participant group (n=15). Even when considering 100% participation there could only have been 20 students in total. This small survey group could not provide data that can be used to comprehensively generalize conclusions across a larger student body or across school districts. This researcher also considers the primary research tool to have areas that can be improved upon to provide data that applies more specifically to high school age students.

The CDS is a partially inadequate instrument to use in isolation to determine where students are deficient in expressing the levels of their individual confidence and certainty in career and college choices. However, it can provide a window into how they think and feel about anticipated confusion and difficulty in making decisions about the directions of their futures (Esters, 2007; Hartung, 1995; Osipow, 1976). This researcher would update the wording and specificity of the items to more closely

reflect a high school student in a 21st century environment. Another area of limitation that should be considered with the CDS; it does not anticipate an intervention after the initial survey. The intervention, or internship program, in this case study was the focus of the surveys and data.

The primary outcome for the CDS has historically been to guide interventions designed to improve the comfort and decisiveness of career and college decision making (Esters, 2007; Hartung, 1995). With these factors in mind, this researcher felt the need to explore whether the intervention, an internship program in this case study, may have provided the improvement in comfort and decisiveness desired by the identification of negative confidence measures in the CDS. The CDS, or other assessments, can be modified or new ones created to achieve data that will assess more thoroughly how and what students are thinking and their perceptions about this case studies research factors.

An additional shortcoming is in the anonymous nature of the surveys. There was no way to determine if the pre and post surveys can be matched to a single student. As it is arranged as secondary data, there is also no quantitative data to correspond to the quantitative data. We were limited in the analysis by the numbers and have to anticipate and interpret these results without qualitative source data that could be attained through focus groups and individual interviews with these participants. This researcher would like to know how the internship placement mentors influenced the students and what was provided to them in respect to learning and experiential opportunities that diverge from the traditional classroom. A mixed-methods longitudinal case study could yield richer data that can be used to inform

other programs and to reveal the characteristics within the internship experience that students gain positive results from.

Furthermore, the students who chose to participate in this internship cannot be seen as representative to the whole student body. As this program was an exception to the regular school day and required commitments beyond the schools' classroom environment, not all students would have had the resources, nor the self-motivation to make the choice to engage in a program like this. Making programs like this an inclusive core component to the curriculum would make them more accessible to the average student. The researcher would recommend that further studies include a control group in each school setting that offers an internship program. The two groups of study participants, one that is in an internship, and the control group that does not participate as interns would take the same surveys and would be followed up with qualitative interviews and focus groups.

This case study has some consistent parallels to Vignoli's (2015) own study that demonstrated that data collection from one environmental setting is in itself a limitation. More expansive data collection sites could provide a greater level of support to provide more internship programs to students. However, the researcher intentionally used this single school program as a unique case study to assess its influence on one group of students. The analysis will be discussed with the program coordinator to provide insight into how they want to use this information to inform the components of learning in the program.

Substantial components that can enhance the college and career readiness metrics would include adolescent career exploration prior to students being expected

to decide on a career with limited or no information (Vignoli, 2015). Future research on this topic can be applied using a cross section of schools and internship programs to assess how to drive the application of practice within school curriculum and policy making. Qualitative research including focus groups and interviews, pre and post-intervention, could be used to gain additional insight of the thinking processes and levels of awareness the student possesses.

Implications and Recommendations

If preparing high school students to be college and career ready is an essential construct for 21st century education, this case study presents evidence that internship programs can assist in the career exploration and decision-making process beyond the classroom traditions. Teachers and internship placements can become mentors to the next generation of skilled and professional community members. This case study did not reveal data on the topic of mentors, but Alper (2017) insists that students' lives are changed by mentoring and interning relationships that a classroom simply cannot replicate. These real-world interactions lead to a new and measured way of approaching the world that these adolescents will soon find themselves in. This is demonstrated in the results of the surveys. Conley (2018) advocates that CCR assessments regularly emphasize grade point averages that do not recognize, nor incentivize, the development of skills and abilities. This begs the question about how we are assessing students abilities. Can taking a test provide enough data about a student's ability to make informed decisions about their future?

The researcher considers the results of this case study as validation and a vision for future research that can drive the pursuit of incorporating these experiences

into the core curriculum of schools across the country. Rather than offering programs like this as a supplement or exception to the curriculum, it can replace large components of the 11th and 12th year. The focus shall be on career and skills exploration and learning professional relationship and communication skills that can provide a greater ability to make informed decisions about the futures that all students will ultimately need to face.

The post-program survey data clearly demonstrates these case study participants perceive a greater awareness and confidence in making informed decisions. Creating a longitudinal study across many states and many established internship programs would help determine the scope and scale of the impact this type of learning can have on students. If students are expected to be College and Career Ready as they graduate from high school, they should also be expected to have the ability to make informed decisions and recognize their options and deficiencies.

Conclusion

As College and Career Readiness (CCR) becomes more entrenched as a terminal directive for high schools, it should be recognized that there is a need to move away from strictly assessing students in school, to providing meaningful and applicable experiences to all students (Conley, 20012, 2012; Gillis, Jones-Moore, Haynes, & Wig, 2016; Malin et al., 2017). Educational systems have grown far from the industrial age of learning and become a diverse community of learners. Now is the time to evolve the learning experience into what it needs to be to truly meet the needs of a competent young person entering the 21st world (Bristol & Snyder, 2015; Conley, 2002; Hart, 2015; Malin et al., 2017; Martinez et al., 2016).

The consequences of guessing about ones futures can be catastrophic when considering the \$1.5 trillion in current student loan debt, low college graduation rates, high unemployment in many college majors, and the stigma of skilled trades jobs leaving many high paying jobs unfilled (Carr & Kefalas, 2010; TED, 2017). The ability to differentiate the learning environment and introduce a variety of experiential opportunities for students to explore career and higher education options can greatly improve the potential outcomes for high school students (Gaylor & Nicol, 2016; Perna, et al., 2011; Symonds et al., 2011).

The core findings in this case study demonstrate that nearly all of the participating students expressed a greater ability to make informed decisions about college and career; and they have a greater sense of what their likely opportunities for college and career may be. It is of no small significance that 27% of the participants reported that they changed their minds about college majors as a result of this internship. The challenge to provide a relevant and practical education and learning environment shall remain a constant in our society and should not be a seen as an opportunity to continue the status quo, but as an opportunity to create a different approach to change in the 21st century.

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